

ISSN 1911-2017 (Print)  
ISSN 1911-2025 (Online)

# ASIAN SOCIAL SCIENCE

Vol. 11, No. 24 October 2015



CANADIAN CENTER OF SCIENCE AND EDUCATION

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# Research on Cohesion of Top Management Team of Family Enterprises: A Review Based on Conflict Management

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Received: September 16, 2013 Accepted: March 10, 2014 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p1 URL: <http://dx.doi.org/10.5539/ass.v11n24p1>

## Abstract

Conflict management mechanism and its optimization are increasingly reflected not only associated with the individual members of top management team, but also more closely related to the groups of top management team. The strength of cohesion of top management team decides the social resources and its centripetal force of family enterprises, so that the members could deal with team conflict with a flexible and effective way, and which will directly affect the decision quality and team performance of top management team of family enterprises. Based on the analysis of cohesion of top management team, conflict and its management mechanism, the study explores conflict management mechanisms of top management team of family enterprises, and analyzes the promotion strategies on cohesion of top management team on a review of conflict management.

**Keywords:** family enterprises, top management team, cohesion, conflict management mechanism

## 1. Introduction

As an extremely important and a deep historical economic organization form, the family enterprises highlights an extremely important role on a global scale, whether the number of family enterprises, the proportion of national GDP, or in the aspect of addressing social employment, stabilizing the economy and other aspects (Sharma, 2002; Liu et al., 2006); Meanwhile, with the rapid development of economic globalization, more and more practices show that the quality, ability and attitude of senior management and the conflict, interaction and cooperation between senior management will directly affect the high-level decisions in family enterprises, thereby affect cohesion of top management team, performance and even the sustainable development of family enterprises.

The attraction and cohesion between team and team members is called "cohesion" in the organization psychology. Scholars (Festinger, 1950; Harrison, 1993; Liu et al., 2009) all considered "cohesion has been a strong predictor of team behavior from the point of social psychology and groups research perspective". Harrison (1993) considered that cohesion reflected "the group members are willing to work together in order to achieve specific tasks, and the extent of the mutual fit exchanges between members or social support relationships"; Wang Zhongming, Liu Fang (2009) believed that "cohesion make the members interact with an flexible and effective way, increase mutual trust, enhance performance, as well as promote sustainable development". However, it is noteworthy that, the team cohesion research has been more focused on sports and military fields. Fan Guiling (2000) carried out relevant investigation and analysis on the cohesion of Women Volleyball Team; Chen Ying (2001) pointed out that the cohesion of APEC mainly derived from its strong intra-group trade; Yan Weijie (2006) divided national cohesion into national cohesion and national mutual cohesion, etc. But the research of team in organization is relatively small, and the research of conflict are mostly aimed at the general team, rarely related to top management team and the internal view, almost no research is related to the cohesion of top management team of family enterprises and its influence mechanism (Malinen et al., 2004).

At the same time, it is known that as familial factors involved, unlike typical enterprises controlled by the professional managers, the conflict management of top management team of family enterprises is not only a simple "Disaster Control", but a directly impact on team cohesion and even performance (Baron, 2008), therefore, how to effectively manage the conflict of top management team conflict and enhance cohesion

becomes obstacles to the development of family enterprises. It is precisely because the unique "differential pattern" and "family culture" of China, the combination of top management and cohesion which have a strong explanatory power to the sustainable development of family enterprises will have extremely important theoretical and practical significance. In summary, in the background of emphasizing on "harmony" and far from "conflict" of China, the study of how to strengthen the cohesion of top management team of family enterprises, effectively response, coordinate, manage conflict, and research the influence of the cohesion of top management team of family enterprises on conflict management mechanism will be a very meaningful research area.

## **2. The Conflict Management Mechanism of Top Management Team**

### *2.1 The Conflict of Top Management Team*

With the rapid development of economic, conflict has increasingly become a widespread social phenomenon, any organizations are bound to conflict, private enterprises as such a relatively unique form of organization is a hotbed of conflict, from the dispute of United States back from to SHK infighting earlier..... the cases of strife due to the conflict of top management team of private enterprises are not uncommon. But so far, domestic and foreign scholars have not reach a clear consensus on the concept of the conflict of top management team, many complicated concept definition reflects the different focus of research and researchers. Hambrick & Finkelstein (1996) considered that "the inner workings of the top management team (TMT) is the important aspects of its theoretical research, because TMT is usually constituted by different members, so there must be conflict between them and which is inevitable"; Jehn (1996, 2010), Amason (1996) was typically divided the conflict of top management team into task conflict and emotional conflict. As family factors involved, compared with other forms of enterprise organization, the conflict of top management team of family enterprises has distinct characters: (1) Relative to non- family enterprises, as a large number of family members involved, family enterprises are facing more internal conflicts (Lee & Rogoff, 1996), and the level of the top management team involved in the conflict are more complex, secretive, and difficult to detect. Investigate its deep-seated reasons, it is due to the coexistence of the two different value orientation in family enterprises - family and business, the former emphasizes on stability and equity, the latter chases speed and short-term profitability; (2) Family enterprises have special dynamics system of power (Sorenson, 1996; Thomason, 2005). In most family enterprises, even family members did not hold official positions, they can also inside information obtain more inside information rely on the special status and influence corporate decision-making, thus create the particularity of its conflict of top management team and lead to conflict range far beyond the traditional bureaucratic system; (3) The conflict of top management team leads to lock-in effect. Family members have a strong dependence on family enterprises, similar to relatively lack of low-cost exit mechanism of family enterprises, so that it is difficult to resolve conflict through such a simple way - someone ( especially when he is a family member ) leave the company.

### *2.2 The Conflict Management of Top Management Team*

The key significance of conflict management is to coordinate contradiction between the conflicting parties to seek to maximize the positive effects. Scholars generally believe that there are individual, organization and inter-organizational three levels (Leslie, 2001). Through literature research, we find that researchers made a lot of research about the conceptual framework of conflict management mechanisms in the individual and the general team level, comprehensive classification as follows: (1)The traditional one-dimensional Prisoner's Dilemma mode, the model is relatively simple, and is lack of content validity and external validity; (2)The multifactorial conflict resolution mode (Follett, 1940), the model emphasizes on the conceptual description, and is lack of specific empirical research; (3)The two-dimensional conflict resolution mode (Blake & Mouton , 1964; Thomas & Schmidt, 1976; Falbo & Peplau, 1980; Rahin, 2002), of which the most widely recognized is the five-factor model (avoidance / forced / yield / cooperation / eclectic) proposed by Thomas (1976) based on cooperativeness and assertiveness and the five conflict management strategies (cognitive / diagnosis / analysis / processing / feedback) proposed by Rahim (2002), its advantage lies in the concept of clear and a corresponding empirical research; (4)three-dimensional conflict resolution mode (Hersey & Blanchard, 1988), it is relatively complex and its concept is also less mature, so its application is little. However, this study found that the above ideas all believe that the conflict is not without merit, conflict management is also not the simple "Disaster Control", Task conflict is not necessarily constructive, and emotional conflict is not necessarily destructive. Therefore, how to resolve destructive conflict and enhance constructive conflict and achieve dynamic equilibrium from the perspective of enhancing cohesion is worth to study further.

## **3. Cohesion of Top Management Team of Family Enterprises**

Studies generally agreed that top management team members with high cohesion show a high level of affinity,

trust, satisfaction and emotional identity of the team, which is extremely important to the team's success. Stodgily (1963) explained the cohesion of the team level as "groups in interference situations to maintain its structural tendency" from the organizational structure perspective; Ensley et al. (2002) considered that "TMT cohesion included task cohesion and social cohesion which is two independent dimensions. The former reflects TMT members are willing to work together in order to achieve specific tasks, the latter involves affinity relationships and social support, etc". He also believed that "the team with high cohesive is running as effective tribal; it can run without extra effort and resources". While, the study argues that TMT team with high cohesive can deal with conflict more effectively, because it will reach deeper trust and consensus in normative and operation, thereby greatly reduce the possibility of cognitive conflict evolving into emotional conflict. Through different experimental findings, the higher the TMT cohesion is, the more conducive to enhance organizational performance would be.

In China, with the depth study of TMT cohesion, LI Jingjing (2007) studied TMT cohesion of private enterprises in China, and proposed two new factors-relationships within the team composition and incentives which influence TMT cohesion; Hao Dengfeng and Liu Mei (2005) discussed the attraction to cohesion of research team-interpersonal formed to individuals; Wang Zhongming and Liu Fang (2009) made an empirical study on the influence of TMT cohesion of family enterprises to succession performance, he considered that in the background of Strong collectivist cultures in China, it is most important to ensure harmony, psychological compatibility and smooth transition of power within TMT for the success of transmission in family enterprises; At the same time, it is worth noting that the content of this study is TMT cohesion in the background of China, compared to junior staffs, TMT members have more mature personality, relatively more independent, with more individualistic cultural traits.

#### **4. Promotion Strategy of TMT Cohesion in Family Enterprises: A Review Based On Conflict Management**

##### *4.1 Cognitive Conflict Management and Cohesion of Top Management Team*

Cognitive conflict is inevitable in TMT; it has the characteristics of functionality, task-oriented, recognizing diversity and others. The effective management of cognitive conflict can contribute to promote communication within the team, gradually form shared values, reduce misunderstanding and confrontation, and even effectively enhance organizational effectiveness. First, cognitive conflict management can achieve a effectively synergistic combination of different views, and weigh the pros and cons to avoid making risky decision-making to the greatest extent, thus promote creative thinking and communication within team members. Relative to heterogeneous TMT, the homogeneous TMT's Cognitive conflict (Tasks) is relatively less, TMT members are easier to communicate and share information, form the same values, that is, when TMT members focus on tasks, relations between individuals are relatively harmonious, the target is convergent, and the members are able to frankly express their independent views, this conflict is conducive to enhance the TMT cohesion; second, it is noteworthy that, since the task itself has a certain degree of complexity and uncertainty, how to master the degree of cognitive conflict certainty become a puzzle problem (Tjosvold et al., 1980), that is, the real savvy TMT of family enterprises must learn to guide the cognitive conflict, balance the degree of cognitive conflict in a specific enterprise, avoid what may make the organization or group become overly harmony and "blind group thinking", make efforts to make the magnitude of the increase in revenue bigger than its negative effects caused by cognitive conflict, foster team members to pursue awareness and the ability of innovation and sincere cooperation in a team with high cohesion, improve their performance of decision-making and their interpersonal cohesion.

##### *4.2 Emotional Conflict Management and Cohesion of Top Management Team*

Emerson pointed out, emotional conflicts will reduce the quality of decisions, and it is not easy to reach a consensus among TMT members, which influences the feelings between them. Jain analyzed 88 teams, he also found emotional conflicts can reduce TMT performance, in addition, Spader further pointed that the reason why emotional conflicts influence TMT performance is that "the hostility caused by the emotional conflict causes some members resist others' suggestion, even if their suggestions are task-oriented". Therefore, emotional conflict has devastating effects on decision-making of TMT, which lead to a decline of organizational performance. We believe that this result is formed by the increase of emotional conflict and the decline of TMT cohesion. The idea of Jumping the intermediate variable of "TMT cohesion" will cover the mechanism of conflict, and can easily lead to simple "collective thinking" instead of "team thinking" for denying conflict in practice.

##### *4.3 Influence of Conversion of Cognitive Conflict and Emotional Conflict on the Cohesion of TMT*

Under certain conditions, cognitive conflict could be transformed into emotional conflicts. The process of

cognitive conflict evolving into emotional conflict is related to values differences and inadequate open interaction patterns. TMT members who have different values may have different faith, structure, and comprehension and so on, so even if there are different solutions for the same question, they can not understand very well. Similarly, TMT members who distrust each other can handle well in the face of disagreement, in this deteriorating conditions, cognitive conflict is transformed into emotional conflict, and TMT cohesion also begin to sag. In contrast, TMT with high cohesive rarely appear suspicion and mistrust, thus can tolerance dissent and different opinions, and the existence of cognitive conflict. In fact, the familiarity and belonging can promote mutual interaction; increase a sense of trust, which will lead to a more open, collaborative team atmosphere, so it is less likely to make cognitive conflict into emotional conflict. Many emotional conflicts are caused by outrage of the misunderstanding of cognitive conflicts. Suspicion and distrust will destroy the cognitive conflict, because personal attacks caused by them make many important questions not be solved correctly. On the other hand, the result of increased competition among TMT members deepens mutual suspicion and distrust, thus reduces the degree of openness and interaction, the phenomenon of "collective quit" of domestic top managers recently is a obvious example.

## 5. Conclusions

This paper presents a theoretical framework between TMT conflict management and cohesion of family enterprises, inferences that TMT conflict management affects the TMT cohesion through cognitive conflict and emotional conflict. This theoretical framework and research direction have a certain inspiration to construct and optimize TMT conflict management and cohesion of family enterprises, but this text is only exploratory research, there are shortages both depth and breadth, future research may cover the following aspects:

- (1) The further integration of related research about TMT conflict management mechanism of family enterprises. The further study will focus on connotation and extension of TMT conflict management of family enterprises. Existing conclusions should be proved by more empirical research. Scholars from abroad, such as Alfred Chandler (1987), Kelin E·Gersick (1998), Olson (2003), all carried out thoughtful exploratory research on TMT conflict management with different perspectives, and made some important achievement, and emerged a large rich literature around the topic. However, in view of the special history, organizational characteristics and governance structure, etc of family enterprises in China, the integration of related research about TMT conflict management mechanism still needs further development;
- (2) The relevant quantitative research of how TMT cohesion affects TMT conflict management mechanism. The research of foreign scholars about TMT of family enterprises almost related to developed countries and regions of the market economy, less related to Chinese family enterprises, especially the Chinese family enterprises in the period of transition. While, the relevant qualitative research of domestic scholars was on rare, empirical research based on reliable data is almost no, quantitative research has a great potential future;
- (3) The research of TMT cultural value of family enterprises. Several important core dimensions of cohesion, such as trust and identity among team members, loyalty and long-term cooperative relationship, all reflects the value system of organizational culture. Zhou Xiaohu, Marlee (2008) pointed out that the "family doctrine", "relationship doctrine" and other traditional cultural values within TMT of family enterprises can effectively expand capital, enhance mutual trust, mutual benefit and co-awareness, and thus effectively control conflict to a reasonable level. This is a very worthy of further research direction.

## Acknowledgements

This research is supported by National Natural Science Fund (71102160), Humanities and Social Sciences Project of Ministry of Education (10YJC630281), China Postdoctoral Science Foundation funded project (2015M571708) & National Statistic Fund (2014LY071).

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# Construct Validation of Consumer Complaint Behavioral Scale in the Malaysian Mobile Phone Services Industry

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Received: January 24, 2014 Accepted: March 6, 2014 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p6

URL: <http://dx.doi.org/10.5539/ass.v11n24p6>

## Abstract

Consumer Complaint Behavior (CCB) is a topic that is continuously being studied globally at various types of industries and from different perspectives. Nevertheless, CCB has varying definitions and different conceptualizations used among the researchers. Public Action, Private Action, No Action and Voice are among the underlying constructs that are frequently used by the researchers to represent CCB. This paper attempts to further clarify the possible and valid constructs of CCB based on the result of EFA and CFA for complainers and non-complainers. SPSS version 21 and AMOS version 21 were used to analyze the data and the results of Goodness of Fit, Average Variance Extracted have met the suggested threshold values. The study also revealed the existence of four factors of CCB for complainers and two factors for non-complainers.

**Keywords:** consumer complaint behavior, public action, private action

## 1. Introduction

The telecommunication industry is one of the major contributors to the Malaysian economy. The revenue from the communications sector in Malaysia has increased by 11% to RM45.8 billion compared to RM41.2 billion in 2009. The performance of this industry compared to five years ago has grown at a compounded annual growth rate or CAGR of 46%, an increase of RM14.4 billion. In 2010 also, the domestic revenue for the communications and multimedia is at RM35.4 billion, representing 6.3% of Gross Domestic Product (GDP) (Malaysian Communication and Multimedia Commission, Annual Report, 2010). It shows that the telecommunication industry has made a significant contribution to the economic growth. Hence, many countries give more focus to improve its telecommunication technology. Owing to the availability of telecommunication technology, mobile phone becomes increasingly important in daily life. People are more relying on mobile phone than ever before and people in their daily life use mobile phones absolutely far beyond other consumer products (Yang & Lay, 2011). The consensus agreement that mobile phone is not only as tools for communication, but also as tools for people working and emotional interaction has made this device becomes one of mandatory items to have. The mobile phone is viewed as an important communication tool and has become an integral part of the society. Malaysians are increasingly using the mobile phone rather than the fixed line telephone as a way to keep in touch with their family, friends, colleagues and business associates (Zulkefly & Baharudin, 2009). At present, in Malaysia it is not difficult to find people with a mobile phone as the number of mobile phone subscribers is exceeding the number of the Malaysian population. It was reported that in 2011, the number of mobile phone services subscribers in Malaysia was 35, 700, 000 (Annual Report 2011, MCMC) whereas the number of Malaysian population was 29,062, 000 (Department of Statistics, Malaysia, 2013).

Consumer Complaint Behavior (CCB) is a topic that has received growing attention from the practitioners and the academicians for various reasons. No one manager in any industry will deny that a complaint from the customer gives an opportunity for the organization to improve. A complaint gives an organization a last chance to retain the customer if the organization reacts appropriately. On the other hand it is a legitimate and ethical act toward the consumer (Crié, 2003). As complaint gives benefits to the organization as well as to the consumer, CCB becomes a topic that is continuously being studied since in the 60's. Although it started in the western countries, studies on CCB have been conducted in various continents of the world. Remarkably, studies on CCB

are significant to various types of industries and sectors. The empirical evidence shows that studies on CCB were conducted in various industries, including manufacturing, automotive, services, electrical appliances and also in grocery (Broadbridge & Marshall, 1995; Gronhaug, 1977; Landon, 1977).

To augment the literature on CCB, this study was conducted in the mobile phone services in Malaysia. Mobile phone services were chosen based on the evidence that this industry has received high complaints rates as compared to other industries in Malaysia (The Star, 2013, November 28; 2012, April 9). In 2012, the Malaysian Communication and Multimedia Commission (MCMC) reported that a total of 757 complaints from various service providers were compiled. Interestingly, with not less than 35 million registered mobile phone subscribers the high number of complaints received is not compatible. This small percentage (3%) of complaints conveys various connotations to various parties. On one hand, it is a good indicator to show that the services offered are excellent, on the other hand it hides unknown reasons.

Consumer complaining behavior is a significant issue crucial to the survival of any business (Kau & Loh, 2006). The unknown problem of the organization if unresolved may affect its competitive advantage. That is the clear reason for CCB to receive growing attention in the service sector (Heung & Lam, 2003; Ndubisi & Ling, 2005; Snellman & Vihtkari, 2003; Yuksel et al., 2006). As this issue is universal, this study attempts to investigate the scenario of CCB specifically in the mobile phone services industry in Malaysia and generally to the service sector. Significantly the result of the study will be able to confirm the constructs of CCB for future researchers. The findings will be useful to help better understand the processes consumers go through when they feel dissatisfied.

Empirical evidences have shown that various different constructs have been adopted in studying consumer complaint behavior (CCB). This study is conducted to identify the relevant constructs under CCB in the Malaysian mobile phone service based on the following research questions:

- a. What are the constructs of CCB?
- b. What is the internal consistency reliability of each construct under CCB?
- c. Does CCB have good construct validity?

The objectives of the study are to identify the underlying constructs of CCB. Besides, the study also examined the internal consistency reliability as well as the validity of the constructs that can be used in studying CCB specifically in the Malaysian mobile phone services setting or in other services industries generally. The items and dimensions of CCB scale were developed and adapted based on the existing instruments that assessed the two dimensions of CCB namely public and private complaints.

### *1.1 Literature Review*

At the early stage, studies on CCB were mainly to determine the determinants for complaining as well as developing the theoretical model of complaint behavior. Based on Hirschman's (1970) study, Day and Landon (1977) proposed a two-level hierarchical classification of actions due to the dissatisfaction which defines complaint behavior. They defined the action taken by the consumers as public action which involves seeking redress; taking legal action or third party complaint whereas the private action involves personal boycott and negative word-of-mouth to the relatives or friends. The take no-action consumers were described as forgetting about the incident and doing nothing. On the other hand, Warland, Herrmann and Willits (1975) found that consumers who got upset in the marketplace would take four options of actions. The upset consumers were most likely to complain personally to someone, do nothing, boycott the store or product or go through intermediaries. Jaccoby and Jaccard (1981) defined the action taken by an individual as communicating something negative regarding a product or service to either the company or to some third-party entity. Here in Malaysia, the third party entity may include the Consumer Associations that are available at each state, the National Consumers Complaints Centre (NCCC) or Communication and Multimedia Consumer Forum of Malaysia (CFM) designated by the MCMC, the government agency such as Ministry of Domestic Trade Co-operatives and Consumerism, political leaders and mass media.

The theory building research has evolved to further develop the CCB concept through empirical evidence such as Singh (1988) who come out with three categories of CCB; namely, voice (reflecting actions directed toward the seller), private (involving negative word-of-mouth and exit) and third party (relating actions directed towards external agencies and legal actions). Crié (2003) defined CCB as a process that constitutes a subset of all possible responses to perceived dissatisfaction around purchased episode, during consumption or during possession of the goods or services. This means that CCB is not an instant response, but a process, which does not directly depend on its initiating factors but on evaluation of the situation by the consumer and of its evolution

over time. The many definitions and explanations make CCB unique and complex to the researchers in this field. The varying alternatives available has created some behaviors are incompatible and the others can be utilized by the consumers in various combinations (Day and Bodur, 1978). Customers can be loyal or exit, but if they choose exit, they cannot be loyal and vice versa whereas other options can be chosen altogether without any contradiction. A dissatisfied customer can choose to exit, engage in negative word-of-mouth, and complain to a third party showing a coherent behavior. Richins (1983) suggested that complaining activities involve three kinds of behaviors known as switching, making a complaint to the seller and telling the experience to others. Conversely, Huefner and Hunt (1994) simplified the conceptualizing of complaining behavior as four-dimensional phenomenon. In the earlier study, Hunt and Hunt (1990) incorporated retaliation, grudge-holding and avoidance as complaining behaviors in their own right. Based on this, Phau and Baird (2008) have conducted a study to see the effect of dissatisfaction and retaliation. Similarly, Singh and Pandya (1991) also considered CCB as four specific dimensions comprising exit action, negative word-of-mouth, voice action and third party action.

In later years, researchers on CCB were not strictly following the framework as suggested by the previous researchers who have come out with various definitions and views on CCB. Phau and Sari (2004) distinguished CCB into two main groups; complainers and non-complainers. Complainers are the consumers who take public and/or private actions and the non-complainers are the consumers that do not take action at all or only take private actions. They said that CCB is the entire responses triggered by perceived dissatisfaction, which is neither psychologically accepted nor quickly forgotten with consumption of a product or service. Heung and Lam (2003) defined CCB as a function of dissatisfaction, which is the result of negative and non-conforming purchase expectations. Volkov, Harker and Harker (2002) viewed CCB as a set of all behavioral and non-behavioral responses portrayed by consumers and CCB is influenced by many dimensions including situational variables, product type, personal variables and the intensity of the consumer's dissatisfaction. Crié (2003) sees CCB as two types of responses; behavioral and non-behavioral. The behavioral responses consist of public action and private action and the non-behavioral action is no action. Day and Landon's (1977) two-level of complaint behavior hierarchical classification (the first level distinguishes action from non-action and the second level distinguishes between private and public action) was employed by several researchers in later years (Ndubisi & Ling, 2005; Matilla & Wirtz, 2004). Tronvoll (2011) suggests that CCB is linked to negative and non-confirmation, which result in low price and performance expectations.

Perceptibly the literature implies CCB as a set of multiple responses that are triggered by perceived dissatisfaction towards the service provider/seller. It has been in agreement by previous researchers that the results of dissatisfaction include public action, private action and no action (Day & Landon, 1977; Crié, 2003; Matilla & Wirtz, 2004; Phau & Sari, 2004; Ndubisi & Ling, 2005), voice, private and third party (Singh, 1988), switching, making a complaint to the seller and telling the experience to others (Richin, 1983) and retaliation, grudge-holding and avoidance (Hunt & Hunt, 1990). Unlike other concepts such as service quality, organizational commitment and many others, the literature also confirmed that there is no specific dimension for CCB. Nevertheless, this study adopts the taxonomy suggested by Crié (2003) as shown in Table 1.

Table 1. A taxonomy of the types of response to dissatisfaction (Crié, 2003)

Response Type	Towards Entity	
	Public (Sellers, manufacturers, official organizations, associations, justice)	Private (Family, friends, relations)
Behavioral	Complaint Legal action Return of the item Request for repair	Word of mouth Boycott/leaving
Non-behavioral	No action, with or without modification of the attitude Forget or forgive	

According to Crié (2003) the two types of responses due to dissatisfaction can be divided into two entities namely public and private for behavioral response. Under public action consumer may complaint, take legal action, return the item or request for repair to the sellers, manufacturers, service providers, official organizations

and associations. Conversely entity under private may include family, friends and relations whereby the actions are word-of-mouth, boycott or leaving. As this study attempts to investigate the behavior of the consumers with regard to complaining, the non-behavioral response such as no action or do nothing is out of the focal point. Adding more definition to the actions, Heung and Lam (2003) defined public actions as seeking redress directly, seeking refund from the seller, complaining to the media, instigating legal actions and taking direct complaint actions to the firm or consumer agency. On the other hand, private actions refer to switching brands and firms, boycotting a firm's products, ceasing to patronize an establishment and negative word-of-mouth communications to friends and relatives (Broadbridge & Marshall, 1995; Kim, Kim, Im, & Shin, 2003; Tronvoll, 2011).

## 2. Method

### 2.1 Population

The population for the study is defined as all consumers of mobile phone services from all service providers namely Maxis Berhad (known as Maxis), DiGi Telecommunication Sdn. Bhd. (known as DiGi), Celcom Axiata Berhad (known as Celcom), and U-mobile in the state of Selangor, Wilayah Persekutuan Kuala Lumpur and Wilayah Persekutuan Putra Jaya. Selangor and Wilayah Persekutuan were chosen due to the total number of subscribers from these two states comprises of 28.6% (1,945,143) of the total subscribers in Malaysia. This will be able to produce a pool of respondents that can ensure the homogeneous characteristics. Besides, the respondents from these two states enable to represent respondents from other states in term of culture and values because the population in these states comes from various states in Malaysia.

### 2.2 Procedures

Self-administered questionnaires were used to gather the data due to the reason that a well-designed questionnaire provides high level of accuracy (Money, Samouel, & Page, 2007). The study used mall-intercept method to select the respondents as it is impossible to obtain the sampling frame from service providers due to the confidentiality of consumers' details. Based on description by Ibrahim and Ng (2002), twelve shopping malls located in Selangor, Wilayah Persekutuan Kuala Lumpur and Wilayah Persekutuan Putrajaya were selected. The chosen shopping malls were Mid Valley, SOGO, Bukit Bintang Plaza and The Mines Sg Besi in Wilayah Persekutuan Kuala Lumpur. Only one shopping complex was selected in Wilayah Persekutuan Putrajaya that is The Alamanda. In Selangor Ampang Point, Selayang Mall, Subang Parade, SACC Mall Shah Alam, AEON Bukit Raja, Sunway Pyramid and Plaza Metro Kajang were selected. Besides the reasons mentioned above, the twelve shopping complexes were chosen based on the researcher's observation that all the selected shopping malls are visited by multiracial consumers which do not only reflect the typical people of Kuala Lumpur, Putrajaya and Selangor but also the general population of Malaysia. Thus, the representativeness of respondents to all major ethnic groups in Malaysia is ensured. Secondly, due to the accessibility reason, that is, easy access to these places either by researchers (and enumerators) and consumers. These places are actually located in strategic areas in Wilayah Persekutuan Kuala Lumpur, Putrajaya and Selangor in which consumers are provided with many transportation modes especially public transports such as commuter, LRT, monorail, buses and taxis. These transportation facilities could help the researcher and the team (enumerators) to easily get accessed to all the shopping malls to collect the data.

Table 2. Total of scale items used to measure CCB

Constructs	Number of Items	Source
Consumer Complaint Behavior	16 items:	
Public Action	7 items	Liu and McClure (2001); Ndubisi and Ling (2005); Malhotra, Ndubisi and Agarwal (2008)
Private Action	9 items	Liu and McClure (2001); Ndubisi and Ling (2005); Malhotra et al. (2008)

### 2.3 Measurement of CCB

This study utilized a variety of validated scales to measure major constructs illustrated in the theoretical framework. Most of the validated scales were adapted to fit the sample of the research. In sum a total of 16 scale items were used to measure the constructs in this research. Table 2 lists the number and sources of the items used to measure each construct.

The selection of the items was based on three criteria. First, the reliability of the item must have the Cronbach Alpha of 0.60 or greater. Second, the construct convergent and discriminant validity must meet the requirements. Finally, the theoretical guidance and judgment were used as the final selection of the items that best meet the domain of the specific construct as defined in the study. This study employed two latent constructs namely Public Action and Private Action for complainers whereas for non-complainers only one latent construct was suggested that is private action. In the questionnaire, respondents were asked whether they have made any complaint to the service provider/firm or any other third party agencies which are responsible to address consumers' complaints such as National Consumer Complaint Center (NCCC), Malaysian Communication and Multimedia Commission (MCMC), Communication and Multimedia Consumer Forum of Malaysia (CFM), consumer associations, political leaders or the mass media. Respondents who answered "YES" for this question were not allowed to response to statement number 1 to number 7 because these statements are meant for respondents who have lodged their frustration to the service provider/firm or any other third parties mentioned above.

The CCB scale was assessed with two subscales: public action and private action. All items were rated on a five-point Likert scale namely 1=strongly disagree and 5=strongly agree. As this study focuses on the behavioral actions of the respondents, the opening of the statement is provided with a phrase "For the problem that I have encountered with my service provider, I always..." indicate that all responses must be based on the actual experiences. To reduce repetition, the phrase was placed on top of the list of the statements. The ratings within each scale are summed and divided by the total number of items in that particular scale in order to determine the score of the scale. The questionnaire was written in English and was translated back-to-back into Malay language by professional translators. It was re-checked by the researchers and the translators to ensure that the translation is correct before it can be used.

#### 2.4 Public Action

Public Action is the action performed by consumers that involves the service provider or any other organizations that take care of consumers' complaints. In this case, the consumers dealt with the service provider or the organization to inform, discuss or request something with regard to their dissatisfaction. Items for this construct were taken from Liu and McClure (2001), Ndubisi and Ling (2006), and Malhotra et al. (2008). Seven items were used to measure soft public action on a five-point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Respondents were asked to indicate their level of agreement on the given statements. Table 3 presents the seven original and modified items used in this study.

Table 3. Public action scale items

	Original Scale Items	Modified Items
		<b><i>For the problem that I have encountered with my service provider, I always.....</i></b>
1	I will discuss the problem with manager or other employee of the bank.	discuss the problem with manager or other employee of the service provider.
2	I will ask the bank to take care of the problem (e.g. to fix, replace item or to do better in the future).	request the service provider to take care of the problem (e.g. to fix, replace item or to do better in the future).
3	I will inform the bank about the problem so that they will able to do better in the future.	inform the service provider for improvement in future.
4	I will write a letter to the local newspaper or mass media about my bad experience.	write a letter to a local newspaper or mass media.
5	I will report the problem to a consumer agency.	report the problem to a consumer agency.
6	I will complain to the government agency or politician.	complain to a government agency or politician.
7	I will take legal action against the bank.	take legal action against the service provider.

#### 2.5 Private Action

The second construct, private action refers to the action taken by the consumers that does not involve the service

provider directly. In other words, consumers do not complain the matter to the service provider or to any relevant authority. However, consumers tell their friends or relative regarding their dissatisfaction. Consumers also sometime convince their friends or relative not to use the services of the service provider again. Respondents were asked to indicate their agreement on the given statements. Nine items were used to measure private action on a five-point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Similarly, the opening phrase “For the problem that I have encountered with my service provider, I always....” is also provided to indicate that all responses must be based on the actual experiences. Table 4 below illustrates the seven items measurement including the modified items.

Table 4. Private action scale items

Original Scale Items	Modified Items
1 I will speak to my friends about my bad experience.	<i>For the problem that I have encountered with my service provider, I always.....</i> speak to my friends about my bad experience with the service provider.
2 I will tell my relatives never to use the service again.	speak to my relatives about my bad experience with the service provider.
3 I will convince my friends not to do business with the bank.	convince my friends not to do business with the service provider.
4 convince my relatives not to do business with the service provider.	convince my relatives not to do business with the service provider.
5 tell my friends never to use this service provider’s service again.	tell my friends never to use this service provider’s service again.
6 tell my relatives never to use this service provider’s services again.	tell my relatives never to use this service provider’s services again.
7 write on my internet social interactive mediums accounts to tell others about my bad experience with this service provider.	write on my internet social interactive mediums accounts to tell others about my bad experience with this service provider.
8 I will decide never to use the service again.	Use this service provider when I absolutely have to.
9 I will patronize another bank next time.	decided to use other service provider next time.

### 3. Results

#### 3.1 Data Analysis

In this study, the Statistical Package for Social Sciences (SPSS) version 21 was used to analyze the quantitative data gathered via the use of questionnaire. The screening process was carried out to identify the missing data, to assign code, to identify outliers and to check the normality as well as to analyze the frequencies, mean and standard deviation. These analyses were conducted for each of the variables to gain preliminary information about the sample. This information gives the reader a ‘snapshot’ of the data collected and used in the research. SPSS was also used to conduct the exploratory factor analysis (EFA) in order to identify the underlying factors of CCB. According to Child, (1990) traditionally EFA has been used to explore the possible underlying factor structure of a set of observed variables without imposing a preconceived structure on the outcome. The data from the pilot study were used to check the reliability of the items as well as to identify the underlying factors of the constructs. SPSS version 21 was used to run the reliability test and analyze the constructs. A total of 100 questionnaires from the complainers and 105 from the non-complainers were used for the purpose (Kline, 1979; Gorsuch, 1983; Fergusson & Cox, 1993).

Amos version 21 was then used to conduct the confirmatory factor analysis (CFA). CFA is a statistical technique used to verify the factor structure of a set of observed variables. CFA allows a researcher to test the hypothesis regarding a relationship between observed variables and their underlying latent construct. CFA is also employed to explore statistical relationships among the items of each factor as well as to verify the unidimensionality of the latent construct in the first step. Hair, Black, Babin, Anderson and Tatham (2006) define unidimensionality as an assumption underlying the calculation of reliability and is demonstrated when the indicators of a construct has an acceptable fit on a single-factor (one-dimensional) model. The unidimensional measurement models are more

useful because they offer more precise tests of convergent and discriminate validity of factor measurement (Anderson & Gerbing, 1988). The first step is therefore to ensure that a set of items empirically measures a single dimension. This study has conducted the unidimensionality assessment prior to testing the reliability and validity of each construct as suggested by Anderson and Gerbing (1982); Dunn, Seaker and Waller (1994) and Hair et al. (2006).

### 3.2 Preliminary Analysis

The preliminary analysis is based on the pilot test. A total number of 100 questionnaires for complainers and 105 non-complainers were collected from groups of post-graduate students and academic staff of Universiti Teknologi MARA, Puncak Alam campus. The results of the reliability tests shown in Table 5 fulfilled the requirement as suggested by Hair et al. (2010).

Table 5. Summary Statistics for CCB and Cronbach's Alpha

	CCB	N	# of items	Mean	$\alpha$
<i>Complainer</i>					
Public Action		100	7	2.74	.66
Private Action			9	3.18	.91
Overall Complainer			16	2.99	.86
<i>Non-complainer</i>					
Private Action		105	9	3.07	.86

Table 6. Factor Loadings for CCB (Complainer)

	Items	Factor Loadings			
	<i>For the problem that I have encountered with my service provider, I always.....</i>				
CCB8	speak to my friends about my bad experience with the service provider.	.921			
CCB9	speak to my relatives about my bad experience with the service provider.	.920			
CCB10	convince my friends not to do business with the service provider.	.873			
CCB11	convince my relatives not to do business with the service provider.	.770			
CCB12	tell my friends never to use this service provider's service again.	.696			
CCB13	Tell my relatives never to use this service provider's service again.	.758			
CCB4	write a letter to a local newspaper or mass media.		.815		
CCB5	report the problem to a consumer agency.		.862		
CCB6	complain to a government agency or politician.		.704		
CCB7	take legal action against the service provider.		.673		
CCB1	discuss the problem with manager or other employee of the service provider.			.724	
CCB2	request the service provider to take care of the problem (e.g. to fix, replace item or to do better in the future).			.921	
CCB3	inform the service provider for improvement in future.			.842	
CCB15	use this service provider when I absolutely have to.				.923
CCB16	decided to use other service provider next time.				.770
Eigenvalue		6.129	2.237	2.101	1.139
Variance Explained		38.309	13.980	13.131	7.116
Reliability coefficient		.771	.799	.931	.767



The results of factor analysis show that there are four factors of CCB for complainers and three factors for non-complainers. For complainers, the results explain that items for public actions fall under two separate factors and items for private actions also fall under two separate factors. The first factor consist of items CCB8, CCB9, CCB10, CCB11, CCB12 and CCB13, items CCB4, CCB5, CCB6 and CCB7 the second factor, items CCB1, CCB2 and CCB3 the third factor and items CCB15 and CCB16 is the fourth factor. The results have clearly indicated that public actions are divided into two categories and two categories for private actions as well.

Looking at the items (CCB4, CCB5, CCB6 and CCB7), this group can be categorized as “Extreme Public Action” and another group (items CCB1, CCB2 and CCB3) can be categorized as “Soft Public Action.” The reason for naming the group is based on the keywords used in the items such as “discuss,” “request,” and “inform” for Soft Public Complaint and “write,” “report,” “complain,” and “take legal action” which is more stern. In previous studies, using items CCB1, CCB2 and CCB3 for public action Liu, Watkins and Youjae (1997), Singh (1988), Liu and McClure (2001) named it as “Voice Responses” whereas items CCB4, CCB5, CCB6 and CCB7 as third party responses. On the other hand, Ndubisi and Ling (2006), Malhotra et al. (2008) and Kitapci and Dortyol (2009) lumped all items into public complaint. Since there is inconsistency of using the items, we decided to name the two categories of public actions as Soft Public Action and Extreme Public Action.

As for private action, the results also show the existence of two categories. The first category consists of items CCB8, CCB9, CCB10, CCB11, CCB12 and CCB13 while the second category consists of items CCB15 and CCB16. Using the same method as in Public Action, we looked at the key words used in items for the first category and second category. The key words for items in the first category are “speak,” “tell,” and “convince” friends or relatives but the key words for items in the second category are “use when have to,” and “use other service provider.” The first category gives us the idea that the consumers may not leave the service provider because consumers only speak, tell and convince their friends or relatives. However, the second category is clearly indicated that the consumers are hardheartedly wanted to leave the service provider.

In previous studies Liu et al. (1997), Singh (1988) and Liu and McClure, (2001) categorized items that used the keywords “speak,” “convince,” “avoided” and “buy from another firm” as private responses. On the other hand, Malhotra et al. (2008), Kitapci and Dortyol (2009) segregated them into “private complaint” and “defection”. This inconsistency leaves us the choice to choose the names for the two categories. Although all actions are done without involving the service provider or a third party, actions like “use when have to” and “use other service provider” are considered as stern action and therefore we named it as Extreme Public Action and Soft Private Action for another category. Table 6 and 7 explain the results of the factor analysis.

Table 7. Factor Loadings for CCB (Non-Complainer)

	Items	Factor Loadings	
<i>For the problem that I have encountered with my service provider, I always.....</i>			
CCB8	speak to my friends about my bad experience with the service provider.	.808	
CCB9	speak to my relatives about my bad experience with the service provider.	.781	
CCB10	convince my friends not to do business with the service provider.	.910	
CCB11	convince my relatives not to do business with the service provider.	.862	
CCB12	tell my friends never to use this service provider’s service again.	.732	
CCB13	tell my relatives never to use this service provider’s services again.	.697	
CCB14	write on my internet social interactive mediums accounts to tell others about my bad experience with this service provider.	.428	
CCB15	use this service provider when I absolutely have to.	.855	
CCB16	decided to use other service provider next time.	.895	
Eigenvalues		4.638	1.268
Variance Explained		51.400	13.843
Reliability coefficient		.906	.775

### 3.3 Confirmatory Factor Analysis

Worthington and Whittaker (2006) in their study of scale development mentioned that researchers typically use CFA after an instrument has already been assessed using EFA in order to know if the factor structure produced by EFA fits the data from a new sample. In this study, a usable data of 230 complainers and 280 non-complainers of mobile phone users were used to conduct the CFA. The standardized estimates are reported to interpret parameters in the measurement model. Table 8 shows the fit indices tested for complainers and non-complainers and the results indicate good fit for all indices.

Table 8. Fit Indices and the result for complainers and non-complainers

Test	Thresholds	Complainer		Non-complainer	
		Initial	Final	Initial	Final
Chi-square ( $\chi^2$ )		682.408	114.263	561.728	17.201
Relative Chi-square, $\chi^2/df$ (CMIN/DF)	< 5.0	8.124	1.970	29.565	2.457
GFI	> 0.90	0.779	0.939	0.670	0.975
AGFI	> 0.90	0.684	0.904	0.375	0.925
RFI	> 0.90	0.744	0.932	0.577	0.966
Normed Fit Index (NFI)	NFI > 0.9	0.795	0.949	0.713	0.984
Comparative Fit Index (CFI)	CFI > 0.90	0.814	0.974	0.718	0.991
Root Mean Square Error of Approximation (RMSEA)	<0.07 or 0.03< RMSEA < 0.08	0.158	0.058	.353	0.080

Table 9. The result of construct reliability, average variance extracted and Cronbach's Alpha

Construct	Items	Standardized Loadings	Construct Reliability	Average Variance Extracted	$\alpha$
<i>Complainer</i>					
Soft Public Action	CCB1	0.63	0.72	0.59	0.810
	CCB2	0.75			
	CCB3	0.90			
Extreme Public Action	CCB4	0.83	0.73	0.55	0.821
	CCB5	0.68			
	CCB6	0.73			
	CCB7	0.72			
Soft Private Action	CCB9	0.63	0.89	0.74	0.918
	CCB10	0.83			
	CCB12	0.96			
	CCB13	0.98			
Extreme Private Action	CCB15	0.82	0.67	0.62	0.762
	CCB16	0.75			
<i>Non-Complainer</i>					
Soft Private Action	CCB9	0.60	0.88	0.84	0.911
	CCB10	0.79			
	CCB12	0.98			
	CCB13	0.97			
Extreme Private Action	CCB15	0.75	0.67	0.62	0.761
	CCB16	0.82			

### 3.4 Validity of the Constructs

The validity of the constructs has met the requirement of average variance extracted (AVE), construct reliability, convergent validity and discriminant validity. In order to further confirm on the reliability of the construct, the

average variance extracted (AVE) and construct reliability (CR) are calculated based on the formulas by Fornell and Larcker (1981).

Accordingly, construct validity is confirmed based on goodness-fit-indices (Hsieh and Hiang, 2004) reported in the earlier section. Evidence of convergent validity is found based on high factor loadings (greater than 0.50) of all factors (Anderson and Gerbing 1988; Cunningham, Holmes-Smith and Coote, 2006). In addition, the results of AVE provide further support for convergent validity. In the case of discriminant validity, the correlations between factors in the measurement model do not exceed 0.85 as recommended by Kline (2005). Table 9 shows the result of construct validity for complainer and non-complainer.

#### 4. Conclusion

Due to different definitions and underlying dimensions of CCB, this paper is intended to provide an empirically validated construct of CCB that can be used by those interested in this matter. The findings provide the empirical evidence that there are four underlying factors of CCB for complainers and two factors for non-complainers. The main factors for complainers are public action and private action. However, the results of EFA show that public and private actions are divided into two categories. Since there is inconsistency with regard to the names of the factors based on the previous studies, reference has been made to the highest loadings and the factors have been named as soft public action, extreme public action, soft private action and extreme private action. The result of CFA confirmed that these factors to be the underlying dimensions of CCB for complainers. On the other hand, since the non-complainers do not involve in complaining directly to the service provider or firm, this type of consumers are left with one choice of CCB that is private action.

The results of EFA also suggest that private actions for non-complainers to be divided into two groups. Similar to the complainers, we named the categories as soft private action and extreme private action since there is no difference of items used. The CFA results also confirm these two factors as the dimensions of CCB for non-complainers. The coefficient alphas that exceed 0.60 for all factors in exploratory factor analysis support the factorial validity of the CCB scale. Such findings suggest acceptable reliability and validity of the instrument. The results of confirmatory factor analysis provided the evidence of construct validity based on the tests of significance and assessment of the measurement model fit. Consequently, the subscales can be regarded as useful instruments in examining the CCB construct in Malaysian setting. The instrument can be used by Malaysian researchers in assessing CCB as all of the items measure what they are supposed to measure.

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# A Marking Scheme Rubric: To Assess Students' Mathematical Knowledge for Applied Algebra Test

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Received: March 25, 2014 Accepted: June 17, 2014 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p18

URL: <http://dx.doi.org/10.5539/ass.v11n24p18>

## Abstract

Students' ability in mathematics mainly relies on their performance in the assessment task such as tests, quizzes, assignments and final examinations. However, the grading process depends on the respective mathematics teacher who sets a marking scheme in assessing students' learning. How do these teachers assign grades to their students' problem solving work? What does it mean by five marks or ten marks for a mathematics problem? How does a teacher evaluate a student's mathematical knowledge and skills based on the grades? These questions address the vagueness of the grading process that gives no concrete evidence about a student's mathematical thinking. Hence, this paper aims to discover the effectiveness of using a marking scheme rubric to assess students' mathematical knowledge. The paper begins by reviewing different types of scoring rubrics in assessing mathematical problem solving tasks. A marking scheme rubric was proposed to assess samples of actual students' problem solving work in an applied algebra test. The rubric serves as an assessment instrument to gather information about students' achievement level in demonstrating both knowledge and skills in the test. Based on the findings, the score reflected the quality of the students' work rather than just a numerical representation. It showed the students' comprehension of adapting the mathematical concepts and problem solving strategies. In a nutshell, the implementation of rubric marking scheme has improved the consistency in grading and made the scoring points as a "meaningful figure" that describes the quality of a students' performance.

**Keywords:** marking scheme rubric, mathematical knowledge, assessment

## 1. Introduction

Students' exposure to mathematical thinking and problem solving begins from their primary education. The mathematics curriculum at the pre-tertiary education in Malaysia has been systematically structured to provide opportunities for students to develop mathematical knowledge and problem solving skills throughout their academic years (Malaysian New Integrated Mathematics Curriculum, 2003). Nevertheless, students are obliged to take part in a series of formal and informal mathematics assessments such as quizzes, assignments and tests at school, to evaluate their proficiency in mathematics learning. At the end of primary, lower secondary and upper secondary levels of education, students are obliged to sit for common public examinations under the jurisdiction of the Ministry of Education Malaysia. The final result of each examination indicates students' pre-requisite background knowledge before proceeding to the next level of education. The recognition as a talented mathematics student depends on the performance in mathematics subjects at these public national examinations. Thus, assessment is part of educational practices that provides evidence of students' achievement in mathematics. It cannot be separated from students' learning and plays a critical role in monitoring students' competency level when they have successfully completed a certain topic or module. Grades are often assigned to each assessment task that indicates how well a student has performed. The final grade determines the standard of students' learning attainment. In other word, students learning ability is normally judged based on how well they do in the assessment task.

## 2. Problem Statement

Assessment is an integral part of the learning and teaching process. However, the teacher is the key assessment grader who determines the score of a student's work. The grading process depends on the respective mathematics teacher who sets a marking scheme in assessing students' learning. Vasquez-Levy, Garofalo and Timmerman (2001) conducted assessment workshop with a group of teachers where they were assigned to grade samples of actual students' problem solving work. These teachers' justifications for giving points in the evaluation of a student's work were not the same. For example, one teacher gave one point for student A's computation effort, while another teacher allocated five points. Some teachers expressed a belief that mathematics is about getting the right or wrong answer, and did not take account of the students' mathematical effort. However, some believed that credits should be given to students' attempt for solving the problem. This results in the inconsistency in the grading process. Besides the various marking habits, another issue of the grading system is the scoring point. What does it mean by five points or ten points for a mathematics problem? How does a teacher evaluate a student's mathematical knowledge and skills based on the final grades? How much mathematics is known by two students whose scores are comparatively the same? In general, the score assigned to each student simply describes how he or she did relative to other students in a class and carries little information about the students' strengths and weaknesses in learning mathematics (Romagnano, 2001). The grading process gives no concrete evidence about a student's mathematical thinking. It is important to consider ways to make the scoring points as a "meaningful figure" that describes the quality of students' performance in the mathematics assessment, and a rubric seems to be the perfect instrument to assist teachers in identifying the important scoring guides of a good solution. It consists of specific performance descriptions in a hierarchy order to analyze and grade students' work explicitly (Mertler, 2001). Hence, this paper aims to discover the effectiveness of using a marking scheme rubric to assess students' mathematical knowledge.

## 3. Literature Review

Mathematics assessment with rubric specification plays a significant role to both teachers and students as a descriptive feedback of performance levels across a scoring scale. Rubric can be accommodated into a variety of assessment scales that depends on the purpose of the assessment (Moskal, 2000). It is developed with its own design features that fit into a specific assessment instrument such as group work, peer or individual assessment (Tierney & Simon, 2004).

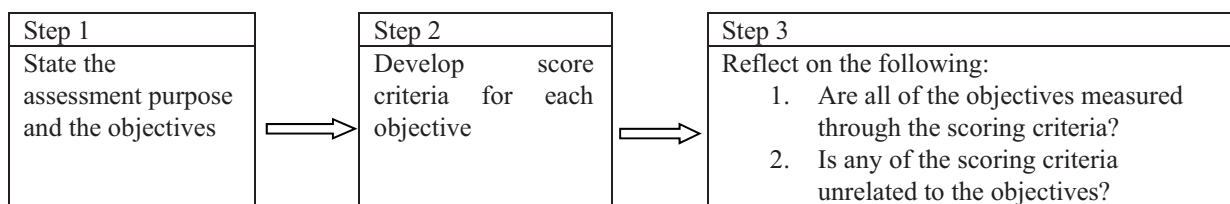


Figure 1. The process for developing a scoring rubric

Moskal and Leydens (2000) have prescribed three steps for developing a scoring rubric as illustrated in Figure 1. The most important feature in the process was to state clearly the learning objectives of a module. According to them, the instructor should be aware of the level of knowledge and skills that the students should attain and how they should demonstrate their proficiencies. The verbs used in the learning objectives serves as guidance in setting performance criteria for a scoring rubric, with appropriate assessment task. Thus, well-defined objectives ensure the fairness in both testing and grading process (Blumberg, 2009).

Some researchers use the phases of a problem solving model as the scaling criteria and guidelines for the rubric development to assess the quality of a student's mathematical problem solving work (Szetela & Nicol, 1992; Gadanidis, 2003; Egodawatte, 2010). For example, Charles, Lester and O Daffer (1987, cited in Szetela & Nicol, 1992) devised an analytic scale that assigned separate scores to each of three stages in problem solving i.e. understanding the problem, solving the problem and answering the question. Such system allowed teachers to analyze students' responses and identify their mathematical knowledge development in attempting a mathematics task. The hierarchical level of the rubric explained why the students received the score and what they should do in order to improve their performance in future (Szetela & Nicol, 1992; Moskal, 2000). Toh et al. (2009) developed a scoring rubric based on Polya's model and Schoenfeld's framework to assess students' problem solving in a practical worksheets that highlighted the problem solving processes i.e. understand the problem, devise a plan, carry out the plan and, check as well extend. Student who did not obtain a correct answer

but showed evidence of responses to the cycle of problem solving processes earned some marks.

Docktor and Heller (2009) designed a problem solving rubric to evaluate students' written solutions to physics problems. The scoring scale assessed five problem solving processes i.e. translating information into a useful description, selecting appropriate physics approaches, applying physics concepts, using mathematical procedures to execute toward the solution and giving logical reasoning of the solution. Approximately 300 students' written solution to the first semester introductory physics tests were analyzed and scored using the rubric. The grading process produced reasonably valid and reliable scores. Moreover, the numerical values provided meaningful information about students' work in key categories associated with the problem solving processes. Thus, a rubric exhibits the qualities that need to be displayed in a student's work and this transparency makes the assessment task as objective as possible (Moskal, 2000).

The focus of this study is to propose a marking scheme rubric to assess samples of actual students' problem solving work in an applied algebra test. The main objective of this exercise is to improve the consistency in grading and make the scoring points as a "meaningful figure". In other word, a final grade of a mathematics task is no more to reflect a quantity of students' work but to provide the information that helps to see the quality of students' work.

#### 4. Proposed Marking Scheme Rubric

Applied algebra with the module code F40APA is one of the core mathematics subjects in the Engineering Foundation program of the University of Nottingham, Malaysia Campus. This module provides basic concepts of matrix algebra and vectors that require mainly solving practical linear systems of equations and the analytical geometry of space that appear in engineering and science. It gives a thorough grounding of mathematics and abilities to deal with real life application problems. Assessment tasks consist of take-home test, classroom written test and final examination with the weightage of 10%, 20% and 70% respectively. In this study, the rubric development is focused on the vector component of the classroom written test.

The test measures three learning objectives on vectors, which are:

- Perform standard operation on vectors in two-dimensional space and three-dimensional space.
- Apply the concept of dot product and cross product of vectors and interpret it geometrically.
- Derive parametric equations of lines and equations of planes in 3 spaces and use these equations to solve geometric problems.

The attainment of learning objectives can be identified through the use of Bloom's taxonomy revised in Anderson's et al. (2001, cited in Blumberg, 2009). The verbs used in the learning objectives determine the levels of cognitive processes such as remember, understand, apply, analyze, evaluate and create. For example, the cognitive level of "understand" is defined by the verbs "interpret", "exemplify", "classify", "summarize", "compare" and "explain" while "apply" describes the activities like "solve", "apply", "implement", "execute" etc. (Blumberg, 2009). Table 1 shows the revised taxonomy of the cognitive domain for categorizing the levels of learning.

Table 1. Structure of the cognitive process dimension of the revised taxonomy (cited in Krathwobl, 2002)

Categories	Cognitive Process
Remember	Retrieving relevant knowledge from long term memory (recognizing, recalling)
Understand	Determining the meaning of instructional messages, including oral, written and graphic communication (interpreting, exemplifying, classifying summarizing, inferring, comparing, explaining)
Apply	Carrying out or using a procedure in a given situation (executing, implementing)
Analyze	Breaking a material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose (differentiating, organizing, attributing)
Evaluate	Making judgment based on criteria and standards (checking, critiquing)
Create	Putting elements together to form a novel, coherent whole or make an original product (generating, planning, producing)

By going through the phrasing of the learning objectives of F40APA, the role of assessment in this module is to examine students' cognitive skills of remembering, understanding and applying the concept of vectors at the end



of their learning experiences. However, these cognitive skills demand a sequence of cognitive activities of problem solving, for example, reading and understanding the problem, planning, performing the plan and getting the answer.

Based on the cognitive skills and activities required to meet the learning objectives, four main criteria with each having four levels of performance from 0 to 3 is proposed, as shown in Table 2. A zero indicates the lowest level of performance while a three indicates the highest level.

Table 2. Scoring rubric for an applied algebra test

Characteristics	3	2	1	0
Understand information given (Do I understand the problem? What information do I know?)	Appropriate mathematics information (including, graphs or diagrams) is identified. Appropriate symbol or/and formula are defined.	Mathematics information identified but symbol or/and formula are partially defined.	Some mathematics information identified. Symbol or/and formula are not defined.	No mathematics information and no formula or symbol used.
Work out proper strategies (Do I use the correct strategy to tackle the problem?)	Can pick a good strategy and approach the problem systematically. No conceptual errors.	Can pick a good strategy but cannot approach the problem systematically. Minor conceptual error.	Can use somewhat good strategy but cannot approach the problem systematically. Major conceptual error.	Apply a strategy that does not work. Conceptual error.
Perform calculation accurately (Are my working and calculation accurate?)	Work shown is logical. Calculations are completely correct.	Work shown has gaps. Calculations are mostly correct, may contain minor errors.	Work is partially shown. Calculations contain major errors.	A limited amount of work shown. Calculations are completely incorrect.
Answer the problem (Do I answer the question with proper working and give appropriate statement?)	Can get a correct answer and give a perfect answer statement.	Can get a correct answer but cannot give an appropriate answer statement.	Can give an appropriate answer statement despite the incorrect answer.	Incorrect answer and no answer statement

The proposed rubric analyzes the students' responses to problems on the basis of four characteristics i.e. identifying the information given, working through proper strategies, performing a calculation accurately and answering the problem. Each characteristic is attached with a set of guiding questions to examine how well the students have responded.

### 5. Examining Students' Problem Solving Work

The test was conducted on the tenth week of the Spring Semester 2013. There were four questions in the test and two questions were regarding vector problems, with a total of 20 marks each. Each question consisted of two to three sub-questions. The students were given one hour to complete the test. However, the discussion in this section is restricted to question No.2 part (a), as it would be lengthy to discuss the students' responses for all the questions. This problem examines the students' understanding on applying the concept of scalar and vector product to write an equation for a plane in space, as shown below.

*Question 2 (a): A plane contains the point A (-4, 9, -9) and B (5, -9, 6) and is perpendicular to the line which joins B and C (4, -6, q). Evaluate q and find the equation of the plane.*

#### 5.1 Students' Responses for Question 2 Part (a)

Five students' problem solving works were considered in the following discussion.

##### Student P

The actual worksheet of student P attempting to solve the problem is shown in Figure 2.

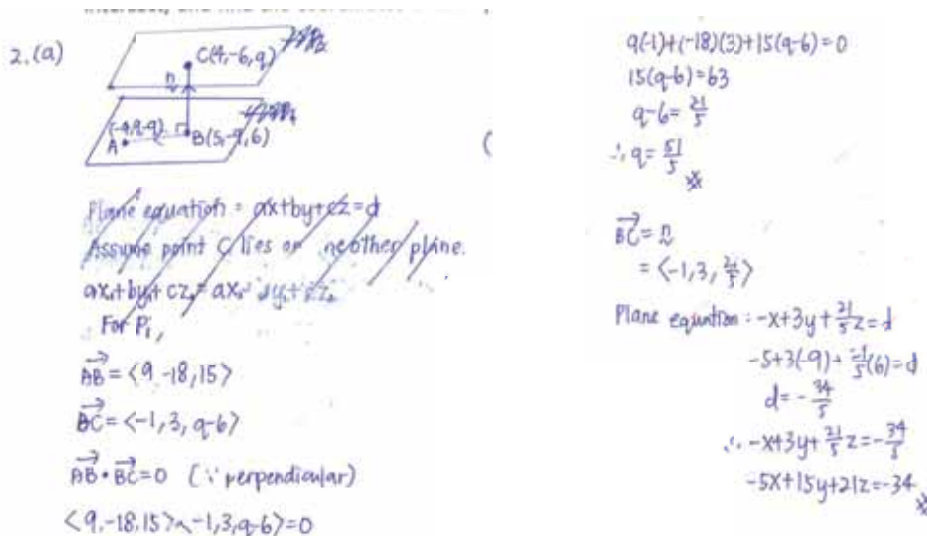


Figure 2. Student P’s problem solving work

Student P’s work showed a thorough understanding of the problem. The student managed to extend the concept of perpendicularity by drawing a diagram with two planes and two arrows to indicate the two orthogonal vectors. The student used appropriate symbols to label the vectors and utilized the concept of scalar products to determine the value of  $q$ . Student P approached the problem systematically with no error in his computation. He finally arrived at a correct answer although he did not supply an appropriate answer statement to the question.

Student Q

Figure 3 shows student Q’s responses to the problem. The student took the symbol “ $\perp$ ” to indicate the perpendicularity of the two vectors  $\vec{AB}$  and  $\vec{BC}$ , and compute the value of  $q$  by applying the concept of scalar product. Student Q seemed to spot the relevant information but the work showed conceptual error in finding the normal vector of the plane. The student could not visualize the problem situation and applied an invalid strategy. Student Q’s calculation was incomplete and obtained an incorrect answer.

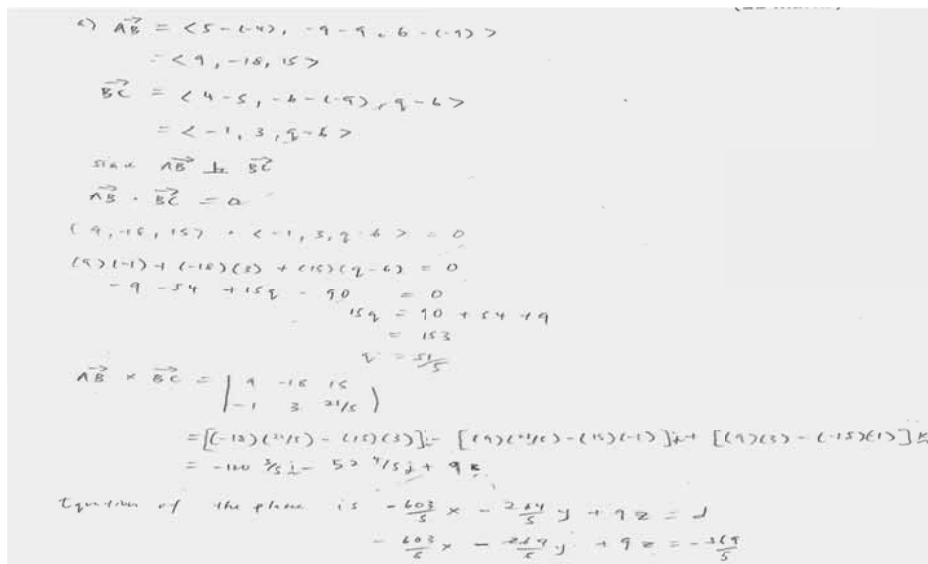


Figure 3. Student Q’s problem solving work

Student R

This student has correctly revealed the important aspects of the problem by sketching a simple diagram. The diagram enabled student R to see the situation more easily. The student took the same strategy as student P to compute the value of  $q$  and obtained the normal vector of the plane, as presented in Figure 4. However, student

R's work was not clearly organized and has done minor computation errors in finding the plane equation.

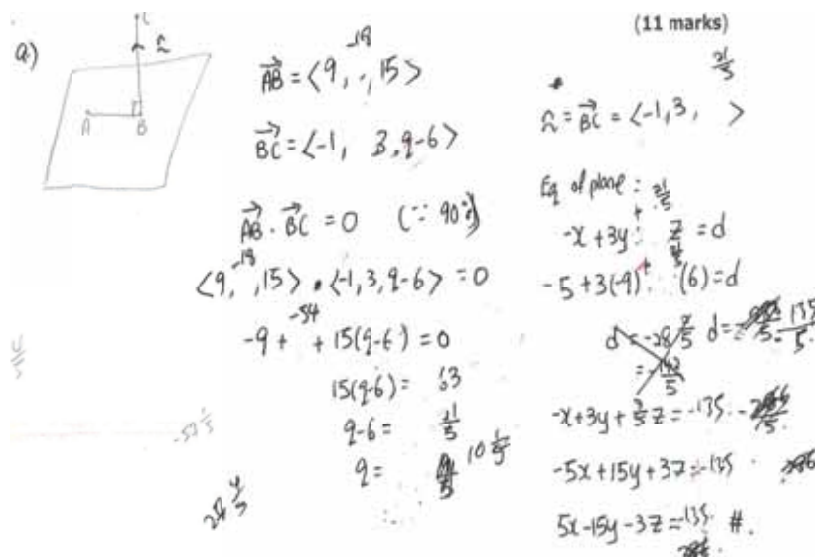


Figure 4. Student R's problem solving work

Student T

This student applied different approach to solve the problem and Figure 5 shows his style of working towards the final solution. Student T could recognize the vector  $\vec{BC}$  as a normal vector of the plane. But he skipped the work of applying the perpendicularity concept of the two vectors. Instead, he transformed the problem into a system of linear equations with two unknown variables  $q$  and  $d$ . Student T solved the system algebraically and managed to gain the value of  $d$ . However, he made a minor computation error in getting the value of  $q$ .

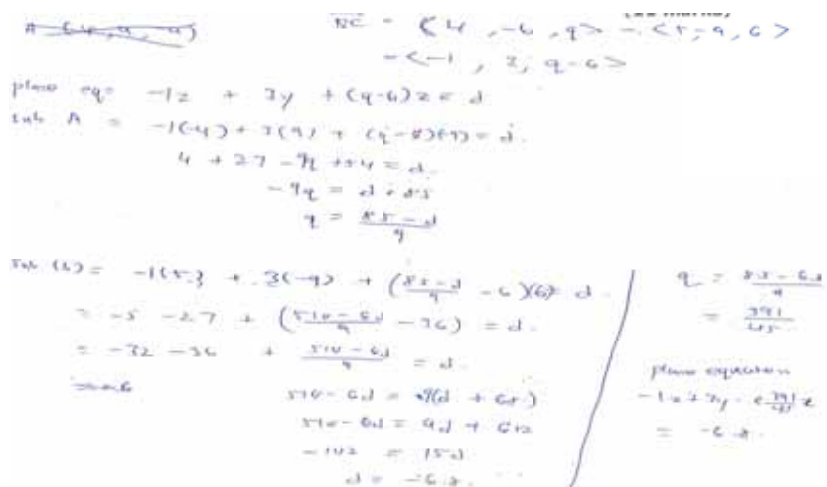


Figure 5. Student T's problem solving work

Student U

Figure 6 demonstrates student U's problem solving procedures. The student noticed the relation of the two vectors at the right angles to one another and applied the concept of dot product to compute the value of  $q$ . However, he has mistakenly assumed that all the points A, B and C were located on the same plane. He employed the tactic of cross product to work out the normal vector of the plane. This has jeopardized his efforts of getting the equation of the plane and worst of all, he has mistakenly adopted the Cartesian equation of a line as the plane equation.

$\vec{AB} = \vec{OB} - \vec{OA}$ , or  $\vec{AB} = 0\mathbf{i} - 18\mathbf{j} + 15\mathbf{k}$   
 $\vec{BC} = \vec{OC} - \vec{OB}$ , or,  $\vec{BC} = \begin{pmatrix} 4 \\ 9 \\ 7 \end{pmatrix} - \begin{pmatrix} 5 \\ 2 \\ 2 \end{pmatrix}$   
 $\vec{BC} = -\mathbf{i} + 7\mathbf{j} + (9-2)\mathbf{k}$   
 we  $\vec{AB}$  and  $\vec{BC}$  are perpendicular to each other  
 $\vec{AB} \cdot \vec{BC} = 0$   
 $\therefore \langle 0\mathbf{i} - 18\mathbf{j} + 15\mathbf{k} \rangle \cdot \langle -\mathbf{i} + 7\mathbf{j} + (9-2)\mathbf{k} \rangle = 0$   
 $\therefore -0 - 54 + 15(9-2) = 0$   
 $\therefore 15q - 90 = 60$   
 $\therefore 15q = 150$   
 $\therefore q = 10$   
 Hence,  $C(4, -6, 10)$   
 Equation of plane:  
 $= \vec{AB} \times \vec{BC} = \begin{vmatrix} \mathbf{i} & \mathbf{j} & \mathbf{k} \\ 0 & -18 & 15 \\ -1 & 7 & 7 \end{vmatrix}$   
 $\therefore \vec{n} = 0\mathbf{i} - (-72 - 45)\mathbf{j} - (-36 + 15)\mathbf{k} = 117\mathbf{j} + 21\mathbf{k}$   
 $\therefore \vec{n} = -117\mathbf{j} + 21\mathbf{k}$   
 Equation of plane  $\Rightarrow \frac{x-5}{-117} = \frac{y+2}{21} = \frac{z-2}{21}$   
 $\Rightarrow \frac{x-5}{-117} = \frac{y+2}{21} = \frac{z-2}{21}$

Figure 6. Student U's problem solving work

### 5.2 The Students' Score Using the Proposed Rubric

After each student's response has been examined, students' works were rated by means of the proposed scoring rubric. Reliability for the grading process was achieved through an additional reviewer who analyzed ten samples of students' work in problem solving. He played the role of cross-checking the scoring process in order to ensure fairness, accuracy and consistency in grading. Table 3 demonstrates the performance of each student in solving the problem at the respective criteria.

Table 3. The students' score using the proposed marking scheme rubric

	Identify information given	Work through strategies	Perform calculation accurately	Answering the problem	Total score
Student P	3	3	3	2	11
Student Q	2	1	2	0	5
Student R	3	3	2	2	10
Student T	3	3	2	2	10
Student U	1	1	1	0	3

Student P, R and T demonstrate high level of performances in their problem solving works. Their responses revealed excellent implementation of a good plan. Student P and R used the drawing tactics to visualize and understand the problem situation. The diagram assisted them to discover the essential features of the problem easily. They extended the problem by applying the proper concept and worked on an appropriate strategy. On the other hand, student T presents a different solution strategy in his problem solving work. The student demonstrated his ability of exploring other successful mode of solving the problem. His work displayed his flexible thinking in interpreting information more than one way and looking for alternative approach rather than rote execution of mathematical procedures. However, student T did not reread and recheck his solution plan. He overlooked the verifying stage of problem solving process which plays an important role to increase one's mathematical problem solving experience (Polya, 1957).

Students Q and U performances were graded low due to incomplete representation of the problem explicitly. Although they recognized the principle of perpendicularity of two vectors and the concept of scalar product, they failed to integrate the given information and what was requested. They demonstrated conceptual error in their calculation that led them to an incorrect answer. Hence, their low level of performances indicate inadequate understanding of the problem and limited use of problem solving strategies such as drawing diagrams, identifying patterns, working backward and etc.

## 6. Conclusion

The above exercise exhibits the practical value of a rubric for learning and assessment. The score becomes a meaningful figure that describes the students' strength in comprehension of mathematics. With each assessment, it shows whether the students have learned thoroughly regarding a concept or theory. The rubric also targets to minimize the discrepancy of different graders' beliefs about the grading practices. This improves the consistency

in grading and gives a fair judgment about students' problem solving works. Thus, a well-designed rubric offers more than an assessment of "right" and "wrong" answer. It makes the standard performance and expectation clear to instructors and students. It facilitates instructors' and students' awareness of the learning objectives and helps them to be thoughtful about the quality of teaching and learning. This will change their conception entirely from valuing a letter grade as an end product to a significant grade that values the learning outcomes achievement.

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## Exploring the Elements of Housing Price in Malaysia

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Received: July 8, 2014 Accepted: March 3, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p26

URL: <http://dx.doi.org/10.5539/ass.v11n24p26>

### Abstract

This informative study explores the elements of housing price in Malaysia and found the price is affected by many factors. This study of great practical significance has shown that house prices are determined by the demand for attributes, not only of the dwelling units themselves, but also of the region in which the units are located. There are many structural, neighborhood and locational attributes that could have brought impacts on house prices (Chin, Chau, & Ng, 2004). Structural characteristics, location-specific factors, and neighbourhood characteristics may define various sub-markets. Sub-markets may be defined by structure type (e.g. single-family detached, row house, town home, and condominium), by structural characteristics (property age housing consumers may have strong preferences for newly constructed properties or for historic properties), or by neighbourhood characteristics (e.g., public education and public safety). Results show that the housing price in Malaysia evidently depends on population, demand and supply, location, physical characteristic, accessibility, developer, cost of material and income. It is also influenced by neighbourhood factors as people nowadays will likely choose a better neighbourhood. These factors determine whether the housing price will be high or low. In summary, the government must take an active role to monitor and take appropriate measures to control property prices.

**Keywords:** elements, housing, ownership, price

### 1. Introduction

Housing price is closely related to the affordability of buyers to own a house. In this matter, government plays a role to ensure that the housing price is proportionate to overall income levels. The increase in house prices have boosted the property sector and also attracted many of new development for residential building. The growth of the Malaysian housing sector has been underpinned by the interface between three forces; growing population, high rates of urbanisation and growing economy (Wan, Singaravelloo, & Hanif, 2010). Unaffordability in buying a house and the increasing of the housing price has currently become the main issue in Malaysia. The larger urban centres have been identified as areas where the need and demand for housing are more pressing. These urban centres are experiencing rapid population growth as well as the entering of migrants from the countryside to enhance the quality of life. The increasing number of low and medium-income groups in the urban centres has exerted pressures on the part of State and Federal governments to provide affordable housing for the group to own a house.

However, from another point of view this housing price is not affordable since the income is also not increasing. Thus, the people are facing savings bubble and rising living costs. Salary is not on par with living standards. Thus, this creates inflations to the people. This paper will try to explore the elements of housing price in Malaysia to resolve the current issue of unaffordable housing and the solutions undertaken by government and to suggest some solution to the problems.

### 2. Issues in Housing Ownership in Malaysia

Property prices in urban areas such as Penang are opened to speculative market. Since, return-on-investment was not attractive in Penang, most investors buy properties for capital appreciation reasons and not for rental yields. According to the Penang Institute, some 40% of the Penang population are in the middle-income category earning between RM3,500 and RM7,100. Under the new loan conditions from banks, which take into account a person's net income and other commitments, this middle-income group is eligible to take up loans for properties up to RM245,000 with a 10% deposit. The price benchmark for housing that comes under the affordable

category will be RM400,000 for units built on Penang island, and RM250,000 for those built on the mainland. From the date of the signing of the Sale and Purchase Agreement (SPA), these houses cannot be sold within five years.

In order to help Malaysians to own a house, the Prime Minister Datuk Seri Najib Tun Razak launched several housing programs to help Malaysians solve this crisis. Among the program implemented is First Home Scheme (SRP), the 1Malaysia People's Housing Project (PR1MA) and the 1Malaysia People-Friendly Homes (RMR1M). However, the price offered is sometimes speculated by the developers for bigger margin. Those with a salary below certain rates such as the private sectors income salary below RM5,000 still cannot afford of having the house and it also creates inflation.

This shows that Malaysians purchasing power are still at low level when almost only half of the 1,642 applicants was found to be eligible to receive a loan from the bank to buy a house under the First Home Scheme. This is because of the banking industry found that those who have salary income of RM3,000 and below failed to qualify for a loan worth RM400,000 for the loan repayment scheme by 80 percent, the applicant must pay a deposit of RM80,000 and most applicants under this scheme does not have sufficient financial means to pay a depositor monthly loan payment detail. According to Real Estate and Housing Developers' Association Malaysia (REHDA), the increases in prices of building materials have also affected the housing price. This creates a gap between the low-income and high-income Malaysians that have the ability to own a house in the increasingly inflated housing market.

### **3. The Relations between Housing Ownership and Housing Price within Current Situation**

The increase in house price has created unaffordability to the lower and medium class income to own a house. The increase in cost of living and a stagnant income has made it harder for them to support their livings if they buy a house.

From the statement of the Deputy Finance Minister Datuk Donald Lim, which he considered the increasing in about 10-20% per annum to be healthy and affordable can only be supported by those who have higher income. However, 10-20 % annual increase in property price is not healthy for Malaysian public as a whole when the income level of wage earners generally doesn't even touch 5% annually, not discounting inflation. Thus, there is an argument regarding the housing price and housing affordability in Malaysia. Unfortunately, affordable housing is not easily available. House prices have soared to exorbitant levels in major cities of Malaysia so that even the middle class cannot afford to own a house or apartment, let alone the lower classes. In 2009, the average house price in almost 6 to 8 times the average household income. Clearly, this is beyond the reach of the average family.

### **4. Methodology**

In this research, quantitative and qualitative analysis will be conducted to explore the elements of housing price in Malaysia. Data from various reports particularly from National Property Information Centre (NAPIC) has been compiled and calculated for this paper. After the analysis, conclusion and the recommendations will write up to provide the research output.

### **5. Exploring the Elements of Housing Price in Malaysia**

#### *5.1 Population, Demand and Supply*

Housing price like any other goods and services in a market economy, are determine by the interactions of demand and supply (Hashim, 2010).The increased population and income will lead to the increase in housing demand (Mohd. Tawil et al., 2011). High demand in housing and low people's demand for owner occupied housing is primarily determined by price of housing, population growth and household formation rate and income growth (Flavin & Yamashita, 2002).

Changes in the quantity of housing demanded will affect the housing supply, thus cause a direct impact of housing price. Migration of rural population to the towns such as Klang Valley as well as long term investment and requires a lot of houses to accommodate this situation (Lit & P.K., 2008). Based on supply and demand curve, there is the possibility that house prices will drop to an affordable levels because there are no buyers who can afford to buy the house, and vice versa (Kementerian Perumahan dan Kerajaan Tempatan, 2010). The demands for houses are determined by variables such as monthly income and household expenditure. Sometimes over demanding makes the prices of houses increase because there is lack in supply of houses.

In exploring the elements of housing price in Malaysia, Penang state will be used as a case study. Housing growth in housing stock is important to accommodate Penang growing population and to facilitate growth in the economy. Below shows the analysis of housing demand and supply in Penang on 2013 with the expected

demand and supply for further 3 and 5 years. According to Table 1, average household size of 3.98 and estimated population of 1.60 million require 402,010 homes by the year of 2013. The housing demand in Penang increases on 2015 and 2020 respectively. Assuming that future supply will be ready by 2015 or 2016 based on potential launches, it is observed that there will be a surplus of 44,844 units for 2015. The gap starts to pick up and narrows to 22,144 units by 2020 with the condition that there are no more unannounced new projects coming on stream.

Furthermore, the tighter loan requirements enforced Bank Negara Malaysia (eliminating BLR) lately and by the state will slow down residential transactions in the state. Whether this oversupply affects property values in Penang will depend on increasing demand by expatriate and foreigners (Property Quotient, 2013).

Table 1. Penang residential analysis

	2013	2015f	2020f
Estimated population average household	1.6 million	1.66 million	1.75 million
Average household	3.98	3.98	3.98
Residential unit needed (housing demand)	402,010	417,000	439,700
Residential unit existing stock (house supply)	367,158	461,844	461,844
Differences between housing supply	(34,852)	44,844	22,144
Condition	demanding	Oversupply	oversupply

Source: Property Quotient (2013).

Table 2. Breakdown supply of residential units by type between Mainland and Penang Island

Item	Penang	Mainland			Island		
		Landed properties	Low cost house & flat	Condo/Soho service apt.	Landed properties	Low cost house & flat	Condo/Soho service apt.
A	Existing stock	105,007	60,552	7,278	36,997	121,326	33,214
	Total existing	105,007	60,552	7,278	36,997	121,326	33,214
B	Completions	3,258	427	614	1,104	2,331	1,637
C	Incoming supply	21,313	4,447	1,773	2,545	7,809	6,838
	Total by 2015	129,578	65,426	9,665	40,646	131,466	41,689
D	Starts	3,526	0	835	1,369	1,444	2,240
E	Planned supply	18,043	5,166	2,411	5,168	8,054	3,717
F	New planned supply	5,926	794	916	647	2,430	2,255
	Total by 2020	157,073	71,386	13,827	47,830	143,394	50,313
	Grand total		242,286			241,537	
Total for Penang state		483,823					

Source: <http://www.penangpropertytalk.com/2014/05/penang-past-present-and-future/>

Table 3. Breakdown of current and future demand of residential properties in Penang

Item	Mainland	Island
Total Penang population as at 2012 (No expat count)	845,000	773,148
A		
Average household	3	3
Current demand of homes	281,667	257,716
Differences between housing supply and demand	108,830*	66,179*
Total Penang population as at 2015 (No expat count)	875,000	801,316
B+C		
Average household	3	3
Demand of homes in 3 years' time	291,667	267,105
Differences between housing supply and demand	86,998*	53,304*
Total Penang population	930,000	850,563
D+E+F		
Average household	3	3
Demand of homes by 2020	310,000	283,521
Differences between housing supply and demand (*oversupply)	67,714*	41,984*

Source: <http://www.penangpropertytalk.com/2014/05/penang-past-present-and-future/>



### 5.2 Housing Price Based on Location

Other than the level of demand, the values of land in urban areas are also determined by its location and availability for various development projects (Seeley, 1983). The location of adequate housing, whether urban or rural, must permit access to employment opportunities, health care, schools, child care and other social facilities. To protect the right to health of the occupants, housing must also be separated from the polluted sites or pollution sources (<http://www.hrea.org>).

The medium income group is more focus on high rise building such as apartment while high income group is more focus on landed properties. Currently, the price range of landed property in Penang Island mostly is around RM700,000-RM1.6 million. There are several factors that should be taken into account for example land matters especially in Penang Island (299.65 sq km) in comparison to Mainland Seberang Perai (738.41 sq km). According to the NAPIC's property market report 2013, the house price for Penang area is being distributed according to district. Penang Island consists of 2 districts (Timur Laut and Barat Daya) while Mainland Seberang Perai consists of 3 districts (Seberang Perai Utara, Seberang Perai Tengah and Seberang Perai Selatan). The highest house prices in Penang are mainly located in Timur Laut, Penang Island while in Mainland Seberang Perai area the highest house prices can be found in Seberang Perai Utara. According to Raine & Horne, in Timur Laut the property prices range between RM800 per sqft (psf) to RM1,200 psf, while in Barat Daya, prices range from RM550 to RM900 psf. For the sub-sales market, the prices are between RM500 and RM800 psf for Timur Laut, and RM450 to RM750 psf for Barat Daya. According to Henry Butcher, in Seberang Prai, property prices are between RM200 and RM390 psf while the sub-sales prices range between RM150 to RM360 psf.

Table 4 shows the average house price while Table 5 shows the annual percentage growth of average house price in Penang Island from Q42009 to Q42014. These are the changes of residential property prices for over 5 years and after the Global Financial Crisis (GFC) in 2008. In 2013, it was a very good year for house prices in Penang, average prices in Penang appreciated highest in Penang Island. All property type in 2013 generated positive growth from year-over-year. The strength was led by Timur Laut where prices were highest for Detached houses (RM3,289,522) with an increase of 73.78% year-over-year, followed by 2-3 Storey Semi-Detached houses (RM1,670,416) with an increase of 33.55% year-over-year and 2-3 Storey Terraced (1,256,000) with an increase of 26.67% year-over-year. This is followed by Barat Daya which also posted strong gains in 2013 with the highest price for 2-3 Storey Semi-Detached homes (RM1,264,869) with an increase of 12.67% year-over-year followed by Detached (RM1,097,111) with an increase of 97.28% year-over-year and 2-3 Storey Terraced (RM813,810). Within 5 years (2009-2014), the price for the all residential property type has increased more than 50% in both district except for 1-1 1/2 Storey Semi-Detached and Detached in Timur Laut and 1 - 1 1/2 Storey Terraced, Detached and Low-Cost Flat in Barat Daya.

In 2014, the highest growth in house price after the GFC within Timur Laut was Condominium/Apartment with prices up a hefty 125.98% followed by 2-3 Storey Semi-Detached (125.69%) and Flat (97.54%). Meanwhile in Barat Daya, the highest growth in house price was 1-1 1/2 Storey Semi-Detached (174.04%) followed by Condominium/Apartment (114.83%) and Flat (111.40%).

Table 4. Average House Price (Q42009-Q42014<sup>P</sup>) in Penang Island

Timur Laut District	Q42009 (RM)	Q42010 (RM)	Q42011 (RM)	Q42012 (RM)	Q42013 (RM)	Q42014 <sup>P</sup> (RM)
1 - 1 1/2 Storey Terraced	434,222	469,000	528,417	712,855	781,941	750,333
2 - 3 Storey Terraced	682,736	764,441	888,771	991,550	1,256,000	1,225,309
1 - 1 1/2 Storey Semi-Detached	682,368	706,214	732,000	1,073,500	1,186,333	978,600
2 - 3 Storey Semi-Detached	873,847	1,134,100	1,180,286	1,250,750	1,670,416	1,972,222
Detached	2,276,391	1,717,190	1,885,556	1,892,900	3,289,522	2,442,000
Low-Cost House	176,000	340,000	132,000	ND	499,600	ND
Low-Cost Flat	69,763	77,333	78,603	77,450	87,401	107,906
Flat	149,186	157,799	167,160	200,706	263,448	294,703
Condominium/Apartment	362,521	423,870	463,163	592,221	794,640	819,232

Barat Daya District	Q42009 (RM)	Q42010 (RM)	Q42011 (RM)	Q42012 (RM)	Q42013 (RM)	Q42014 <sup>P</sup> (RM)
1 - 1 1/2 Storey Terraced	387,083	368,308	370,600	504,182	599,875	577,600
2 - 3 Storey Terraced	549,768	616,947	667,260	736,121	813,810	933,232
1 - 1 1/2 Storey Semi-Detached	230,000	ND	378,600	285,000	664,000	628,000
2 - 3 Storey Semi-Detached	753,350	785,480	1,080,000	1,122,600	1,264,869	1,147,227
Detached	823,538	960,000	601,667	556,120	1,097,111	1,117,250
Low-Cost House	ND	182,000	ND	119,667	145,000	122,750
Low-Cost Flat	77,800	85,615	75,500	81,187	97,577	95,520
Flat	124,678	138,927	169,856	208,385	277,905	263,571
Condominium/Apartment	268,978	264,949	322,300	382,978	542,841	577,836

Source: Author's compilation from Property Stock Report, NAPIC (Q42009-Q42014<sup>P</sup>)

Table 5. Annual Percentage Growth of Average House Price (Q42009-Q42014<sup>P</sup>) in Penang Island

Timur Laut District	Q42009	Q42010	Q42011	Q42012	Q42013	Q42014 <sup>P</sup>
1 - 1 1/2 Storey Terraced	11.01%	8.01%	12.67%	34.90%	9.69%	-4.04%
2 - 3 Storey Terraced	18.42%	11.97%	16.26%	11.56%	26.67%	-2.44%
1 - 1 1/2 Storey Semi-Detached	-12.48%	3.49%	3.65%	46.65%	10.51%	-17.51%
2 - 3 Storey Semi-Detached	11.61%	29.78%	4.07%	5.97%	33.55%	18.07%
Detached	117.95%	-24.57%	9.80%	0.39%	73.78%	-25.76%
Low-Cost House	-	93.18%	-61.18%	-	-	-
Low-Cost Flat	11.73%	10.85%	1.64%	-1.47%	12.85%	23.46%
Flat	9.55%	5.77%	5.93%	20.07%	31.26%	11.86%
Condominium/Apartment	-8.08%	16.92%	9.27%	27.86%	34.18%	3.09%
Barat Daya District	Q42009	Q42010	Q42011	Q42012	Q42013	Q42014 <sup>P</sup>
1 - 1 1/2 Storey Terraced	6.93%	-4.85%	0.62%	36.04%	18.98%	-3.71%
2 - 3 Storey Terraced	27.48%	12.22%	8.16%	10.32%	10.55%	14.67%
1 - 1 1/2 Storey Semi-Detached	-54.90%	-	-	-24.72%	132.98%	-5.42%
2 - 3 Storey Semi-Detached	13.04%	4.26%	37.50%	3.94%	12.67%	-9.30%
Detached	74.11%	16.57%	-37.33%	-7.57%	97.28%	1.84%
Low-Cost House	-	-	-	-	21.17%	-15.34%
Low-Cost Flat	10.80%	10.04%	-11.81%	7.53%	20.19%	-2.11%
Flat	-2.16%	11.43%	22.26%	22.68%	33.36%	-5.16%
Condominium/Apartment	31.55%	-1.50%	21.65%	18.83%	41.74%	6.45%

Source: Author's calculation from Property Stock Report, NAPIC (Q42009-Q42014<sup>P</sup>)

In Mainland Seberang Perai, people prefer to live on landed properties as the prices are affordable. Table 6 shows the average house price while Table 7 shows the annual percentage growth of average house price in Mainland Seberang Perai from Q42009 to Q42014<sup>P</sup>. In 2014, the strength was led by Seberang Perai Utara where prices were highest for Detached (RM791,320) with an increase of 19.32% year-over-year from 2013, followed by 2-3 Storey Semi-Detached (RM678,825) in Seberang Perai Selatan with an increase of 55.87% year-over-year and 2-3 Storey Terraced (RM650,375) in Seberang Perai Tengah with an increase of 0.66% year-over-year. For 2014, Seberang Perai Tengah has the most positive increase year-over-year.

Within Seberang Perai Utara, the highest growth in housing price after the GFC was Detached (67.05%), followed by 1-1 1/2 Storey Terraced (44.82%) and Low-Cost House (31.34%). Within Seberang Perai Tengah,

the highest growth in housing price was Condominium/Apartment (143.62%), followed by 2-3 Storey Semi-Detached (83.24%) and 2 - 3 Storey Terraced (73.69%). For Seberang Perai Selatan, the highest growth in housing price was 2-3 Storey Semi-Detached (146.91%) followed by 1-1 1/2 Storey Terraced (118.10%) and 1-1 1/2 Storey Semi-Detached (106.20%).

Table 6. Average House Price (Q42009-Q42014<sup>P</sup>) in Mainland Seberang Perai

Seberang Perai Utara	Q42009 (RM)	Q42010 (RM)	Q42011 (RM)	Q42012 (RM)	Q42013 (RM)	Q42014 <sup>P</sup> (RM)
1 - 1 1/2 Storey Terraced	152,853	163,450	170,565	176,864	201,151	221,363
2 - 3 Storey Terraced	264,536	265,103	294,929	300,156	360,180	320,957
1 - 1 1/2 Storey Semi-Detached	269,250	166,909	210,816	222,300	350,500	299,500
2 - 3 Storey Semi-Detached	376,624	349,032	432,310	525,800	669,169	358,233
Detached	473,714	555,000	498,472	519,500	663,200	791,320
Low-Cost House	67,000	69,333	82,200	72,500	74,750	88,000
Low-Cost Flat	58,300	55,600	57,500	57,286	65,889	55,500
Flat	106,313	98,500	116,400	112,077	115,286	138,700
Condominium/Apartment	166,181	130,316	-	161,762	218,640	214,983
Seberang Perai Tengah	Q42009 (RM)	Q42010 (RM)	Q42011 (RM)	Q42012 (RM)	Q42013 (RM)	Q42014 <sup>P</sup> (RM)
1 - 1 1/2 Storey Terraced	133,828	128,702	144,249	171,560	189,042	198,818
2 - 3 Storey Terraced	229,786	250,946	268,077	290,368	368,340	399,118
1 - 1 1/2 Storey Semi-Detached	208,075	194,000	266,016	259,370	342,108	350,033
2 - 3 Storey Semi-Detached	352,947	432,250	418,613	484,387	496,300	646,742
Detached	425,580	465,000	538,111	571,880	646,111	650,375
Low-Cost House	95,021	121,458	105,659	121,322	148,924	144,386
Low-Cost Flat	54,568	57,471	50,792	55,952	60,093	59,147
Flat	82,778	87,000	70,000	81,000	94,286	99,000
Condominium/Apartment	89,600	95,000	139,967	124,545	149,810	218,286
Seberang Perai Selatan	Q42009 (RM)	Q42010 (RM)	Q42011 (RM)	Q42012 (RM)	Q42013 (RM)	Q42014 <sup>P</sup> (RM)
1 - 1 1/2 Storey Terraced	108,123	107,091	118,821	136,943	155,962	235,811
2 - 3 Storey Terraced	192,282	210,595	196,059	233,630	277,982	286,247
1 - 1 1/2 Storey Semi-Detached	161,648	182,857	208,990	228,230	252,133	333,314
2 - 3 Storey Semi-Detached	274,923	357,118	307,854	351,002	435,516	678,825
Detached	387,063	249,000	283,500	369,210	981,143	490,000
Low-Cost House	83,071	93,250	78,333	137,022	101,880	78,333
Low-Cost Flat	42,000	42,750	40,000	45,800	48,667	50,500
Flat	ND	ND	ND	ND	ND	ND
Condominium/Apartment	ND	ND	ND	205,000	ND	ND

Source: Author's compilation from Property Stock Report, NAPIC (Q42009-Q42014<sup>P</sup>)

Table 7. Annual Percentage Growth of Average House Price (Q42009-Q42014<sup>P</sup>) in Mainland Seberang Perai

Seberang Perai Utara	Q42010	Q42011	Q42012	Q42013	Q42014 <sup>P</sup>
1 - 1 1/2 Storey Terraced	6.93%	4.35%	3.69%	13.73%	10.05%
2 - 3 Storey Terraced	0.21%	11.25%	1.77%	20.00%	-10.89%
1 - 1 1/2 Storey Semi-Detached	-38.01%	26.31%	5.45%	57.67%	-14.55%
2 - 3 Storey Semi-Detached	-7.33%	23.86%	21.63%	27.27%	-46.47%
Detached	17.16%	-10.19%	4.22%	27.66%	19.32%
Low-Cost House	3.48%	18.56%	-11.80%	3.10%	17.73%
Low-Cost Flat	-4.63%	3.42%	-0.37%	15.02%	-15.77%
Flat	-7.35%	18.17%	-3.71%	2.86%	20.31%
Condominium/Apartment	-21.58%	-	-	35.16%	-1.67%
Seberang Perai Tengah	Q42010	Q42011	Q42012	Q42013	Q42014 <sup>P</sup>
1 - 1 1/2 Storey Terraced	-3.83%	12.08%	18.93%	10.19%	5.17%
2 - 3 Storey Terraced	9.21%	6.83%	8.32%	26.85%	8.36%
1 - 1 1/2 Storey Semi-Detached	-6.76%	37.12%	-2.50%	31.90%	2.32%
2 - 3 Storey Semi-Detached	22.47%	-3.15%	15.71%	2.46%	30.31%
Detached	9.26%	15.72%	6.28%	12.98%	0.66%
Low-Cost House	27.82%	-13.01%	14.82%	22.75%	-3.05%
Low-Cost Flat	5.32%	-11.62%	10.16%	7.40%	-1.57%
Flat	5.10%	-19.54%	15.71%	16.40%	5.00%
Condominium/Apartment	6.03%	47.33%	-11.02%	20.29%	45.71%
Seberang Perai Selatan	Q42010	Q42011	Q42012	Q42013	Q42014 <sup>P</sup>
1 - 1 1/2 Storey Terraced	-0.95%	10.95%	15.25%	13.89%	51.20%
2 - 3 Storey Terraced	9.52%	-6.90%	19.16%	18.98%	2.97%
1 - 1 1/2 Storey Semi-Detached	13.12%	14.29%	9.21%	10.47%	32.20%
2 - 3 Storey Semi-Detached	29.90%	-13.79%	14.02%	24.08%	55.87%
Detached	-35.67%	13.86%	30.23%	165.74%	-50.06%
Low-Cost House	12.25%	-16.00%	74.92%	-25.65%	-23.11%
Low-Cost Flat	1.79%	-6.43%	14.50%	6.26%	3.77%
Flat	-	-	-	-	-
Condominium/Apartment	-	-	-	-	-

Source: Author's calculation from Property Stock Report, NAPIC (Q42009-Q42014<sup>P</sup>)

The above tabulation show the comparison of housing price and growth base on the different distance from the city. The price offered in Penang Island for all types of houses (except for Apartment/Condominium) is very high compared to Mainland. Only high income group can afford to buy a house in Penang Island with a very expensive value. Low income and middle income group have a chance to rent a house in Penang Island or choose to buy house in Mainland. Price normally starts to decline when outside the city area. Usually living in high density area with only basic accommodation can sometime be quite uncomfortable and hence some may choose to stay away from the city.

In 2013, the housing price in Penang increased year-over-year for all type of houses except for low cost house in Seberang Perai Selatan District as shown in Table 6 and Table 7 above. According to CA Lim and Co principal, Lim Chien Aun, the increase in housing price did not cause by the foreign buyers because they only contribute a small percentage (8%) in the country property market.

### 5.3 Neighbourhood

Neighbourhood will also determine the housing price in Malaysia. When determining the location of their residence, consumers will prioritise the environment and public facilities and services offered by the house's neighborhood (Lee & Hui, 2012). House prices vary from one neighbourhood to the other depending on neighbourhood characteristics and environments (Islam, 2012). Many studies conducted in Europe, Asia and the US evaluate the impact of environmental qualities, such as green space provision (Tyrvaenen, 1997; Tyrvaenen & Miettinen, 2000; Tajima, 2003; Jim & Chen, 2006), proximity to parks (Bolitzer & Netusil, 2000), and views of green space and water (Luttik, 2000; Jim & Chen, 2006) on house prices.

The house which offers a good neighbourhood characteristic such as green space area and quality environment will be high in value. A household normally considers the quality of its potential neighbourhood such as its location and the public services provided to that neighbourhood, in taking a decision about the housing unit it will reside in (Aluko, 2011). The presence of low income group in the neighbourhood is to be related with social nuisance and less demand for better neighbourhood environment. In addition, high-income group prefer neighbourhood that are populated with high-income group with high desire to have high-quality neighbourhood services and environments. Lynch and Rasmussen (2004) and Tiebout (1956), using income as a single criterion, asserted that households demanding high quality services have natural incentives to exclude relatively low-income households from the neighbourhood.

There are many types of neighbourhood attributes that house buyers can choose from such as environmental qualities within and around the neighbourhood, gated guarded area, peace area and also suitable for recreation activities. House buyers are willing to pay more to live in a gated guarded neighbourhood because of the security provided in such area. House buyers nowadays generally want to live in the neighbourhood with a freehold tenure besides the secured and exclusive gated-guarded landscape compound neighbourhood (Tan, 2011). Higher-income households may be willing to pay more for housing to maintain neighbourhood homogeneity (Goodman & Thibodeau, 1998).

### 5.4 Physical Characteristic

Physical characteristic of the house itself also influence the housing price. A house which has a special design will increase the house price. The most common structural attributes that are included in measuring property prices are the built-up area, the size of the living area or the dining area, number of bedrooms or bathrooms in a house, the car porch and the internal or external structure of a house (Arimah, 1992; Laakso & Loikkanen, 1995; Tiwari & Parikh, 1998; Wilhelmsson, 2000; Tse & Love, 2000). People with many family members will demand for a bigger size of housing area with many numbers of bedrooms. People with low income groups who have many family members have no choice to demand because they cannot afford to own it. In addition, types of design and finishes that a particular property offered to buyers also influenced the housing price. House with a special finishes and modern design can lead to a higher value.

### 5.5 Accessibility

Another factor that affects the price of housing is accessibility. Accessibility (or just access) refers to the ease of reaching goods, services, activities and destinations, which together are called opportunities (Levinson & El-Geneidy, 2006). Adequate housing must be accessible to those entitled to it. This includes all disadvantages groups of society, who may have special housing needs that require extra consideration. Increased accessibility tends to reduce transport costs and improve economic opportunities (better shopping, schooling and employment options), particularly for people with disabilities and low incomes (Todd, 2013).

Accessibility is hypothesized to increase the likelihood that households choose a particular community (Bayoh, 2006), including access to transportation, retail establishments (shopping facilities, etc.) and job opportunity (Longjuan & Lihua, 2002). The problem of accessibility to housing becomes more critical among the middle income group earners given that the lower income group housing needs are addressed by the governments in developed and developing countries. With respect to the locational attributes of housing, distance to the workplace, schools, retailing outlets and public transportation stations have been found to significantly affect house prices (Poudyal, Hodges, & Merrett, 2009).

### 5.6 Developer

The main cause of surging prices of properties in Malaysia is the high amounts of premiums that developers need to pay to the federal and state government for every housing project. Government need to cut down premiums payable by the developers so that their construction costs are lower which allow them to build more affordable homes. If the developers have to pay very high construction premiums, the cost will be transferred to

house buyers. However, if the government reduces the premiums that need to be paid, the developers could also reduce their prices. Government should design a new system where developers need to pay a discounted rate in premiums for any affordable low cost housing projects.

### 5.7 Cost of Material and Land

The higher material costs mainly occurs due to the 20 cents rise in the price of RON95 petrol and diesel. Besides, the absenteeism of foreign workers recently also increases the cost of producing local construction materials and the construction process itself. As reported in The Star Online 5<sup>th</sup> September 2013, the President of Penang Master Builders and Building Materials Dealers Association-Datuk Lim Kai Seng says it expected construction costs was to rise by 3- 5%, the cost of transportation was likely to rise 10-20% and the prices of sand and cement by 5-10%. This rising of cost in construction industries is not a new issue. From International Construction Cost Survey 2012 that was held by Turner and Townsted, the price of construction materials in 2011 increase drastically compared to the previous year 2010.

### 5.8 Income

The relationship between house price and income is important to describe the housing affordability of Malaysians. This is one of the factors that will lead to the affordability of each individual to either own or rent a house. The price gains have been largely supported by higher household income over the past three years. The house prices in Penang had increased at a 3-year CAGR of 8.1% to exceed income growth of 4.7% over the same period. Taking a longer horizon of eight years, both house prices and income have narrowed the gap. An even longer view of 13 years shows income growth is still lagging behind housing prices with house prices growing at 5% p.a. vs. 3.8% for household income. There seem to be affordability issue in long term. Current the apartment rental in Penang per month is in the range RM1,500 to RM4,000 and to buy apartments price per square meter is range RM4,305.56 to RM10,000.00. So, this show housing in Penang Malaysia is very expensive and compare with average monthly disposable salary after tax is RM2,000 to RM4,400. At this range we can know the range expenditure by consumer in Penang is high cost of subsistence but some of people afford to buy housing in Penang because of city centre that have many job opportunities.

Table 6. Income growth versus house price increases Malaysia

States	Average household income			House price index		
	13-yr CAGR	8-yr CAGR	3-yr CAGR	13-yr CAGR	8-yr CAGR	3-yr CAGR
Selangor	5.0%	3.9%	5.6%	4.8%	5.4%	12.2%
Kuala Lumpur	5.8%	7.0%	16.1%	6.2%	7.0%	11.8%
Pahang	7.4%	5.7%	4.5%	6.4%	6.4%	10.5%
Sabah	5.9%	6.7%	9.0%	7.9%	8.8%	10.5%
Terengganu	7.2%	9.0%	9.6%	6.2%	7.0%	10.2%
Malaysia	5.6%	5.5%	7.5%	4.8%	5.5%	9.4%
Perak	5.6%	6.1%	8.1%	5.3%	5.3%	8.8%
Pulau Pinang	3.8%	4.6%	4.7%	5.0%	5.6%	8.1%
Negeri Sembilan	5.3%	5.9%	8.9%	4.3%	4.6%	7.7%
Sarawak	5.0%	5.8%	6.2%	4.7%	5.8%	7.0%
Perlis	7.2%	7.1%	10.6%	4.9%	4.7%	6.6%
Johor	4.4%	5.3%	6.7%	1.8%	3.4%	6.0%
Kelantan	7.0%	7.1%	7.7%	4.3%	4.4%	6.0%
Kedah	6.0%	6.1%	8.7%	4.5%	4.0%	5.5%
Melaka	5.9%	6.9%	4.4%	3.7%	3.8%	5.0%

Source: CIMB Property Market Report 2012

Issue of affordability is one of the issues that often arise among consumers who want to own a home. Between aspects that need to be addressed for this is the average income to support the debt load to be received when owning your own home. Examining the salary levels of middle income professions over the years, demonstrates that wage growth has been relatively static, which supports a view that middle income groups are being squeezed by lack of growth in wages, while facing increasing costs of living and declining housing affordability.

Based on the range salary people staying in Penang, we can assume most of people only afford to buy apartments housing. This is because the price for bungalow, terraced or semi-detached houses is more expensive compare to the apartments housing. Besides, to buy the landed properties housing need to include the land price and this is one factor why the landed properties are high cost. Furthermore, the demand of housing in Penang is increase every year but unfortunately most of people are not be able to buy houses at Penang and only rich people can live luxurious in this town.

## **6. Role of Government**

As stated, the affordability level of the people in owning houses is determined by the income of the people and the prices of houses in the market. In order to improve housing sector in Malaysia especially in homeownership among renters and buyers, Ministry of housing and local government have introduce National Housing Policy (NHP). The aim of this policy is to provide adequate housing, comfort, quality and affordable to improve the ability of living (National Housing Policy, 2010).

The fulfillment of housing is a major social objective of national development. The aim is to ensure that all Malaysians in particular the lower income groups, have access to adequate housing. According to National Housing Plan (NHP), housing developments are concentrated in high-density urban and suburban areas where the purchasing power and market are significantly immense. However, in order to balance up current housing needs especially for the low-income and middle-income groups, the Government and the private sector must play their roles to fulfill social responsibility to the people. Government has taken many initiatives in order to make sure that housing price did not be an obstruction for the medium and low income group to get their own house.

Herewith is the solution taken by the government as a cooling measure to curb speculation towards homeownership:

### *6.1 My First Home Scheme or Skim Rumah Pertamaku*

The scheme of My First Home Scheme or Skim Rumah Pertamaku has been effective from 1 January 2012. This scheme is to help those who do not capable of having their first house. It is the scheme that is for those who are financially ready for the monthly mortgage installments but have not enough of savings money as down payment for house. The SRP will increase the house prices limit from RM220,000 to RM400,000 as announced in the Budget by Prime Minister Datuk Seri Najib Tun Razak in Parliament on 7 October 2011.

### *6.2 PRIMA*

PRIMA is a programme that has been introduced to provide middle-income earners in cities nationwide the opportunity to own their first home costing between RM150,000 and RM300,000, depending on the location. This is to enable more Malaysians to own their first house which will be improved by increasing the income limit for individual loans from RM3,000 to RM5,000 per month or joint loans of husband and wife of up to RM10,000 per month. In July 2011, the Malaysia People's Housing (PRIMA) Bill 2011, was launched to assist low and medium income and the youth buying their first homes. This is one of the step taken by the government to ensure that everybody has the rights to own a house. Developers are currently teaming up with the PRIMA scheme, switching from high-end developments to mid-range ones to lure first time buyers with easier financing and reduced stamp duty for houses below RM400,000. Borrowers with monthly income up to RM7,000 per month qualify for the scheme. This is such a very good initiatives that made by the government to suit with the affordability of the individual.

### *6.3 Revision of Real Property Gain Tax (RGPT)*

Speculative activities have led to limited supply of real property, especially in urban areas. To address the problem, for gains on properties disposed within the holding period of up to 3, 4 and 5 years, RPGT rate is increased to 30%, 20% and 15% respectively for citizens and company. Company will also be charged 5% for properties sold in the sixth year and later. The RPGT rate for non-citizens are 30% for properties held for one to five years and 5% for properties sold in the fifth year and later.

#### 6.4 Shared Ownership Scheme (SOS)

The state government will offer 30% interest-free loans and households who cannot obtain sufficient financing to buy low-cost homes need only raise capital for the remaining 70%. The 30% loan can be repaid at any time or the home can remain in shared ownership where the loan is only paid off when the property is sold. (iproperty.com)

#### 6.5 Levy

By 2014, levy is not applicable to affordable housing. Sales which are conducted within three years from the date of the signing of the SPA will get a 2% levy. Non-citizens are only allowed to buy strata-titled properties (more than RM1,000,000) and landed properties (RM2,000,000) with and added 3% levy.

#### 6.6 Low-cost/Low-medium Cost

Those who wish to sell their low-cost (up to RM42,000) and low-medium cost (up to RM72,500) homes within 10 years from the date of the signing the SPA should appeal to the state government.

### 7. Conclusion

Results show that the housing price in Malaysia depends on population, demand and supply, location, physical characteristic, accessibility, developer, cost of material and income. It is also influenced by neighbourhood factors as people nowadays will likely to choose a better neighbourhood. These factors determine whether the housing price will be high or low. Developers play a big role to ensure that all the buyers need had been taken into consideration in producing a house. Developers also need to be aware of the greener lifestyle concept of a house. Security services of a housing area such as gated guarded house are very important matters that need to be considered as people tend to be more concern about their security. Future trend of house also need to be taken into consideration for the developer in providing a house.

In order to meet the demands and needs of the increasingly affluent house buyers, instead of just offering dream homes in main locations, housing developers should provide intangible benefits in the neighbourhood that are just as people's demand for today such as a sense of security, a feeling of harmony with one's surroundings, and an infrastructure which supports an eco-friendly lifestyle. For the private housing sector, the government must take a leading role to monitor property prices and take appropriate and timely measures to avoid unhealthy and unsustainable run up in property prices. One lesson of the recent financial crisis is central banks and policy makers have focused narrowly on consumer price and wage inflation and neglected to monitor and regulate asset price inflation. It is time to recognize that asset inflation (property and stocks) has posed a greater threat to financial and economic stability. The recent measure by Bank Negara to limit buyers of third property to a 70% loan to value ratio is not enough to curb excessive investment and speculation. We suggest that loan ratio be reduced to a much lower level to test the market reaction.

The government should stop the sale of landed properties to foreigners. As for non-landed properties, foreigners should not be eligible for local housing loans, unless they are permanent residents. Ultimately, the single most important thing the Government can do to help the property industry in Malaysia is to take away the burden of low cost quota from the private sector, and develop an alternative business model to provide and finance quality low cost housing. In short, the government's priority should be to put the needs of the majority of Malaysians ahead that of banks, developers, speculators and rich foreigners. Government should take action to the investors and speculators by creating a law against property insider trading. Besides, the sales system of affordable low cost housing should be more transparent and fair with priority given to the real home buyers and less corruption could took place in property selling process.

#### Acknowledgements

This paper is part of the research title 'Government Role towards Homeownership: The Case of Penang' funded by NAPREC under National Institute of Valuation (INSPEN). The support is greatly acknowledged.

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## Islamic Practice among Polytechnic Ungku Omar Students

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Received: November 2, 2014 Accepted: July 1, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p39

URL: <http://dx.doi.org/10.5539/ass.v11n24p39>

### Abstract

The purpose of Islamic education is to impart knowledge of Islamic teachings for students to practise in their daily lives. Islamic Education is a compulsory course for all Polytechnic students in Malaysia. However, there has not been any study on its effectiveness on the Islamic practice of students in their daily lives. Hence, this research is to measure the effectiveness of implementing this course on the Islamic practice among students of one of the polytechnics in Malaysia, Ungku Omar Polytechnic (PUO), Ipoh, Malaysia. The purpose of this research is to study the level of Islamic practice among students in terms of *aqidah* (belief), *ibadah* (worship) and *akhlak* (moral/ character). This research is a study survey. The research instrument used to measure the level of Islamic practice among Muslim students is the Islamic Practice Instrument (IPI-Fariza). 60 male and 40 female students are selected as research respondents. Data obtained through questionnaire forms is analysed using SPSS software and research findings are explained using descriptive statistics displayed in mean scores. The Alpha Cronbach reliability value for the whole of the question items in the questionnaire is high, that is, 0.923. Research outcome shows that the level of Islamic practice among respondents is high in all aspects, that is *aqidah* 100.0 percent, *ibadah* 94.0 percent and *akhlak* 96.0 percent. In conclusion, overall research findings show that the level of Islamic practice among students in PUO is high. This shows that the Islamic Education course taught has a favourable effect on Islamic practice among students of Ungku Omar Polytechnic (PUO), Ipoh, Malaysia.

**Keywords:** *practice, Aqidah* (Belief), *Ibadah* (Worship), *Akhlak* (Morals/ Character), Islamic Education

### 1. Introduction

Islamic education implemented in Malaysia aims to impart knowledge to students on how to practise Islamic teachings in daily life. The concept of Islamic practice has three components, that is, *aqidah* (belief), *ibadah* (worship) and *akhlak* (morals/ character). These three components are closely related as a sign of a Muslim's faith and servitude to God (Sabiq, 1992). The course Islamic Education which covers the three components is compulsory on all Muslim students at Politeknik Ungku Omar (PUO), Ipoh. The purpose of this course is to teach students how to apply Islamic knowledge in their daily lives. One of the methods used to measure the effectiveness of this course is by studying the level of Islamic practice among students. This article displays the outcome of research conducted on Islamic practice among students in PUO, Ipoh. This research studies the level of Islamic practice among Muslim students in this institution in terms of *aqidah* (belief), *ibadah* (worship) and *akhlak* (morals/ character).

Islamic education is a physical, spiritual and mental guidance or process towards the formation of a good Muslim character (Mustafa, 1999). According to Zakiah Daradjat (1992), Islamic education is the formation of a Muslim character through belief and practice. The course is one of the living subjects which encompass all aspects of human life. It is not just a compulsory subject but more importantly, it aims to develop a humane personality. Religious/Islamic education is very important in teaching children to distinguish between what is beneficial and what is harmful (Salasiah et al., 2014). Based on present reality, students do not fully practise theory learnt in their daily lives. According to Mohd @ Mohamed (2000) students still fail to translate religious theory learnt and understood into a practical way of life. In fact, some of the students avoid religious teachings while appreciation of Islam among students is increasingly lax (Fauzi, 2003).

Some research conducted at the level of higher learning institutions (IPT) find that Islamic practice among students is still at a low level, such as research done by Mohd @ Mohamed (2000) on Islamic practice among students of private institutions of higher learning. Research done by Ahmad Diniah (1995), finds that trainees lack appreciation of moral values towards Allah s.w.t., themselves and society. Research by Alias (2010) in a polytechnic finds that *aqidah* of students are at a high level, but practice levels of *ibadah* and *akhlak* are only at average level. This shows that the effectiveness of Islamic Education has not reached the desired high level of effectiveness in practice. Research by Shamshuddin (1990) finds that achievement of the objectives of Islamic Education at PUO is not yet satisfactory. His research finds that 58 percent of respondents lack interest in the Islamic Education course and that only 62 percent of them have mastered the basic Islamic knowledge. A variety of new methods and modules have been introduced in the course at PUO. In efforts to strengthen the course, specifically to guide PUO students in the practical aspect, research needs to be done from time to time to determine the extent of Islamic practice among the students. In this regard, Ahmad Munawar (2009) states that the subject Islamic Education needs constant upgrading from time to time so that students are motivated to make Islam a practical way of life.

## 2. Concept of Islamic Practice

The practice of Islam is a responsibility given by Allah s.w.t to every Muslim and it must be fulfilled by every Muslim without any doubt. Human beings are creatures of Allah and it is the best creation of all and when they are first born they are purely born without any sin. As a human being, they are created and equip with various senses, having brain to think reason out what's right and wrong. With these, Islam has come upon them to perform their duties as servants to their creator and be a Khalifah of Allah in the surface of the earth. Their responsibility to Allah is clearly stated in the Qur'an in Surah al-Zariyat verse 56.

*Means: I have only created jinns and men, that they may serve Me.*

In practice the teachings of Islam, there are three aspects or components that need to be understood and at the same time practiced by the Muslim which is *aqidah*, *ibadah* and *akhlak*.

In Islam, *aqidah* is the most important aspect in all practice. This is stressed by al-Ghazali (2000:198) who stated that *aqidah* or belief are the most honorable or noble matters in Islamic teachings and the source of all goodness. *Aqidah* means complete belief or faith in the truth or reality, without doubt, as prescribed by Islam (al-Jaza'iri, non date). This is the reason why we need to measure the level of *aqidah* practice among muslim because *aqidah* is very important for Muslims.

In the context of this study, *ibadah* practice highlighted as obligatory in the daily life of a Muslim student include the obligatory of five times daily prayers, fasting in Ramadan, paying *zakah*, cleansing of impurities and covering the *aurat*. The purpose of performing specific *ibadah* in Islam such as prayers (*solat*), reading al-Quran, fasting in Ramadan, paying *zakah* and performing *Haj* are not merely requirements of Islamic teachings, but also to improve moral character and behavior. According to Abdul Karim Zaydan (1972), each action done by a Muslim in his life in compliance with Allah's command is considered as *ibadah* and purification of his or her soul

*Akhlak* is closely linked with implementation of the *ibadah* aspect because a good *akhlak* will lead to doing good and leaving that which is prohibited by Allah.s.w.t. (Ibn Taimiyyah, 1981; Zakaria, 2001). This discussion explains that *akhlak* is among that which cannot be neglected in the life of a student. The Prophet pbuh was deeply concerned about the importance of an honorable character as stated in a hadith:

*"There is nothing which outweighs more on a weighing scale than an honorable character and one with such a character may achieve the rank of he who fasts and prays "* (Hadith riwayat al-Tirmidhi, Kitab (23) al-Bir wa al-Silah, Bab (60) ma Ja'a fi al-Husn al-Khuluq).

Faith in Islam (*iman*) would not be complete without *aqidah*, *ibadah* and *akhlak*. Either strong or weak a person's faith can also be measured or known from his *akhlak*. With strong *iman* also will eventually produce a strong believer with good *aqidah*, *ibadah* and *akhlak*. This because of the strong faith expressed human worship and virtuous and so otherwise.

*Iman* is the basic foundation needed in one soul and with *iman* comes the good practices of Islam. *Akhlak* comes from one thought and needs. Doing a perfect and truthfully practice of Islam, we need a good *akhlaq*. At the same time having a good practice of Islam, keep one's *akhlaq* in a good level as prayers (*solat*), fasting can make people more devoted (*taqwa*) while *zakah* can help purify one soul and body (Jawiah et al., 2008).

The discussion above clearly shows that there is the relationship between *aqidah*, *ibadah* and *akhlak*. These three components also affecting each other in determining the extent of one's to its creator (Allah s.w.t). It is

correct and appropriate to assess one belief in the teaching of Islam through the aspects of *aqidah*, *ibadah* and *akhlak*. Religious/Islamic practice can strengthen the personality and spirituality of students (Fariza, 2015).

Hence, this research is conducted to study the effectiveness of the Islamic Education course being implemented in the Polytechnic by measuring the level of Islamic practice in the three aspects of *aqidah* (belief), *ibadah* (worship) and *akhlak* (morals/character).

### 3. Research Design

This research is designed as a study at Politeknik Ungku Omar (PUO), Ipoh, Malaysia. The polytechnic is selected as research location because it is the first polytechnic in Malaysia. Hence, it has the benefit of experience and older teaching system in comparison to other polytechnics in Malaysia.

### 4. Participants

Research participants are 100 students of semester II, Department of Civil Engineering, PUO, Ipoh. This group is selected because they have followed the Islamic Education course for 2 semesters. Selection is by convenience sampling.

### 5. Measuring Instrument

The research instrument to measure the level of Islamic practice is the *Islamic Practice Instrument* (IPI-Fariza) produced by a research group panel of the Faculty of Islamic Studies (FPI), National University of Malaysia (Fariza, 2011). IPI-Fariza is formed to specifically measure the level of Islamic practice among Muslim adolescents. It consists of 3 components, *aqidah* (belief), *ibadah* (worship) and *akhlak* (morals/ character) each containing 30 items. Each item has a Likert scale with a selection of answers ranging between 1= strongly disagree to 5= strongly agree. IPI-Fariza has been modified to suit research respondents by selecting 45 suitable items, that is of 15 items for each of the three components.

A pilot study was conducted on 30 Muslim students in Semester II, Department of Mechanical Engineering, PUO, Ipoh with the purpose of testing the suitability of the measuring instrument on selected respondents. The *Alpha Cronbach reliability value* for *aqidah* practice was 0.801, *ibadah* practice was 0.890 and *akhlak* practice was 0.821. The *Alpha Cronbach* reliability value for the whole of the question items in the questionnaire was high at 0.923. Thus, the reliability of this research instrument is validated for its applicability to this research.

### 6. Data Analysis

Data obtained from questionnaires is analysed using SPSS software and study findings explained by using descriptive statistics in the form of mean scores. To determine the level of Islamic practice in terms of *aqidah*, *ibadah* dan *akhlak* and the overall level of Islamic practice among respondents, three levels are categorised at high, average and low. Table 1 below displays the score range of categories in the level of student Islamic practice.

Table 1. Determination of Islamic Practice Level

Component	Score Range	Level
Aqidah, Ibadah and Akhlak	55-75	High
	35-54	Average
	15-34	Low
Overall	166-225	High
	106-165	Average
	45-105	Low

Source: Questionnaire 2011

### 7. Result

The research outcome obtained is described in three components of Islamic practice, in terms of *aqidah*, *ibadah* and *akhlak*. The research outcome is as follows:

#### 8. Respondent's Aqidah Practice

Analysis of answers given by respondents based on items provided shows that the highest mean score is 5.00 as

the maximum mean score whereas the lowest mean score is 4.22. Overall, all items have a mean score > 4.00 which shows the mean score of each item is at a high level.

Table 2. Respondent's Aqidah Practice

No.	Item	Mean
1	I believe that Allah s.w.t. exists.	5.00
2	I am able to declare my faith (shahadah).	5.00
3	I have a fear of doing something prohibited by Allah.	4.81
4	When in distress, I hasten to pray (doa) to Allah.	4.85
5	I am constantly vigilant because angels will record everything I do.	4.56
6	I make Prophet Muhammad (pbuh) as a 'role model' in my life.	4.74
7	Reading historical accounts of Prophet Muhammad (pbuh) increases my love for him.	4.82
8	Reading al-Quran brings me peace of mind.	4.88
9	I constantly hope for Allah's mercy.	4.81
10	I constantly work hard to achieve success.	4.82
11	I am constantly vigilant against doing anything in violation of the Islamic law.	4.55
12	I dislike to see male and female go out as a couple without legitimate ties (mahram).	4.22
13	I constantly pray to Allah to forgive all my sins.	4.87
14	I fast during Ramadan because I believe it is sinful not to.	4.89
15	I feel peaceful when doing obligatory prayers (solah).	4.90

Source: Questionnaire 2011

Analysis of respondent's aqidah practice shows that all respondents (100.0 per cent) are at high score level. This shows that the course Islamic Education has a good effect on Islamic practice in the aspect of aqidah. This finding is supported by findings of research interviews conducted. According to a lecturer of the course, none of the PUO students has done anything which would revoke or taint his *aqidah* (Mohd Azrul Jaafar, 2011).

Table 3. Level of Respondents' Aqidah Practice

	Level	Score	N	Percent
Aqidah	High	55-75	100	100.0
	Average	35-54	-	-
	Low	15-34	-	-
	Total		100	100.0

Source: Questionnaire 2011

### 9. Respondent's Practice of *Ibadah* (Worship)

Research findings of respondents' ibadah practice are displayed in Table 4 below. The lowest mean score is 3.81 while the highest is 4.79 and all items are at a high level of mean score.

Table 4. Respondents' Ibadah Practice

No.	Item	Mean
1	I perform the obligatory prayers five times a day.	4.15
2	I do the obligatory prayers five times a day wherever I may be.	4.05
3	I perform the obligatory prayers on time or early.	3.81

4	I do not skip obligatory prayers even if pressed for time for class.	3.99
5	I fast during the month of Ramadan.	4.79
6	I never skip fasting in Ramadan without legitimate excuse.	4.49
7	I make sure to pay fitrah zakah (annual head tax).	4.66
8	I take the obligatory bath when there are signs of major impurities (hadath).	4.77
9	I supplicate (doa) to Allah after every prayer.	4.78
10	I always perform the sunnah which may me bring merit ( for example, sunnah prayer and fasting, charity, zikir, reading al-Quran)	4.53
11	I always ensure that the food I eat is halal (lawful).	4.76
12	I always cover my aurat wherever I go.	4.43
13	I dislike watching television shows which reveal aurat.	4.13
14	I read 'Bismillah' (In the name of Allah) before eating.	4.68
15	I make an effort to know Islamic law more in depth.	4.68

Source: Questionnaire 2011

In the context of this study, ibadah practice highlighted as obligatory in the daily life of a Muslim student include the obligatory five times daily prayer, fasting in Ramadan, paying zakah, cleansing from impurities and covering the aurat. The item with the highest mean score is fasting in Ramadan (4.79), obligatory bath (4.77), reading Bismillah before eating or drinking (4.68) and knowing Islamic law more in-depth (4.68). And the lowest mean score is performing daily obligatory prayers on time or early (3.81). This means that most students do not perform obligatory prayers on time or early.

This finding is supported by outcome of interview with a lecturer who states that there are PUO students who do not perform their obligatory five times daily prayers (Ruslinawati, 2011). Based on observation during study recess from 1.15 to 2.15 pm. at the PUO mosque, there are many female students in the mosque, praying Zuhur or resting. But not many male students are in the mosque during this time. Many of the students also return home or to the hostel at this time. According to Azhar (2006) the young generation of today face a problem in being consistent with their obligatory five times daily prayers (Azhar, 2006).

Analysis of the overall level of ibadah practice is as in Table 5. Research findings show 94.0 per cent of respondents are at a high level of ibadah practice, 6.0 per cent of respondents are at average level and none of the respondents are at a low level of ibadah practice. This shows that on the whole the level of ibadah practice of the majority of respondents (94 percent) is high.

Table 5. Level of Respondents' Ibadah Practice

	Level	Score	N	Per cent
Ibadah	High	55-75	94	94.0
	Average	35-54	6	6.0
	Low	15-34	-	-
	Total		100	100.0

Source: Questionnaire 2011

## 10. Respondents' Akhlak Practice

Research findings show respondents' akhlak practice in Table 6. The highest mean score is 4.69 while the lowest mean score is 4.18. This shows that the mean score for every item is at the high mean level. The highest mean score is doing well for others (4.67), invoking blessings for the Prophet (pbuh) (4.66) and watching one's words (4.69). And the lowest mean score is going out as a couple with a lover (4.18). Research outcome shows that the course Islamic Education has a good effect in terms of student moral character.

Analysis of the level of akhlak practice shows 96.0 percent which represent 96 respondents is at a high score

level and only 4.0 percent representing 4 respondents is at average level of akhlak practice. And none of the respondents 0.0 per cent is at a low level of akhlak practice. This finding is in line with the interview outcome with a lecturer, according to whom; the students on the whole behave well towards the lecturer (Wan Muhammad Hafiz, 2011). Even though there are students who may do something contradicting the values of Islamic akhlak, they are but few in number.

Table 6. Respondent's Akhlak Practice

No.	Item	Mean
1	I seek Allah's pleasure by doing well to others.	4.67
2	Whenever I hear someone invoke blessings for the Prophet (pbuh), I immediately respond to it.	4.66
3	I constantly watch my words when talking to my parents.	4.69
4	I always give salam greetings when meeting my teacher.	4.58
5	I make haste to help others in need.	4.62
6	I watch my conduct so as not to offend others.	4.51
7	I am open to accepting other's criticism to correct me.	4.58
8	I do not get easily angry in difficult situations.	4.41
9	I like showing good conduct.	4.61
10	When I give or help someone, I do it without expecting anything in return.	4.57
11	I would not take someone's possessions without asking for permission first.	4.57
12	I do not feel happy when going out with my steady as a couple.	4.18
13	If a friend borrows my money, it is not ethical for me to ask for more in repayment.	4.56
14	I would rightaway apologise if I did something wrong.	4.57
15	I always tell the truth.	4.40

Source: Questionnaire 2011

Table 7. Distribution of Respondents' Akhlak Practice Levels

	Level	Score	N	Percentage
Akhlak	High	55-75	96	96.0
	Average	35-54	4	4.0
	Low	15-34	-	-
		Total	100	100.0

Source: Questionnaire 2011

## 11. Overall Level of Respondents' Islamic Practice

Table 8. Distribution of Respondents' Level of Islamic Practice

	Level	Score	N	%
Overall Islamic Practice	High	166-225	98	98.0
	Average	106-165	2	2.0
	Low	45-105	-	-
		Total	100	100.0

Source: Questionnaire 2011



Analysis outcome of the overall level of Islamic practice researched in terms of akidah, ibadah dan akhlak is showed in Table 8. Research findings show that 98.0 per cent of respondents have a high score of Islamic practice and only 2 per cent of respondents have an average score. And none of the respondents, 0.0 percent is at a low level of Islamic practice. This means that the overall level of respondents' Islamic practice in the three aspects of aqidah, ibadah and akhlak is high, 98 percent this shows that on the whole, the Islamic Education course taken by the students for 2 semesters has a favourable effect on the Islamic practice of Muslim students.

Outcome of interview with lecturers state the overall Islamic practice among PUO students is good (Jamayah, 2011). Through the researcher's observation of the PUO campus environment, Islamic practice among students is good and no students have been found to act openly against Islamic teachings.

## 12. Discussion

Research findings show that the level of Islamic practice of PUO students in the three aspects (aqidah, ibadah, akhlak) is high. This high level achievement is due to the factor of respondents having attended the Islamic Education course for two semesters. The course contents emphasize theoretical and practical aspects for a period of 30 lecture hours (15 hours of theory and 15 hours of practical) per semester. These research findings are similar to study findings of Islamic Education curriculum at polytechnic level in Malaysia by Ahmad Mohd Salleh (1990). His research finds that the curriculum implemented then achieved its objectives because 90.0 per cent of respondents understood the teachings imparted and 68.6 per cent of respondents stated Islamic Education as the course they had most interest in while 96.2 per cent of respondents stated that the syllabus suited student capability (Ahmad, 1990).

Data shows that practice of aqidah is the highest in comparison to ibadah and akhlak. This means that students keep their belief or aqidah practices. In Islam, aqidah is the most important aspect in all practice. This is stressed by al-Ghazali (2000) who stated that aqidah and faith are the most honorable or noble matters in Islamic teachings and source of all goodness (al-Ghazali, 2000). Aqidah means complete belief or faith in the truth or reality, without doubt, as prescribed by Islam (al-Jaza'iri, without date). This is the reason students have a high level of aqidah practice because they understand the importance of aqidah for a Muslim. This finding is in line with the research finding by Alias (2010) which is related to the Evaluation of Curriculum Implementation in Polytechnic Islamic Education, Ministry of Higher Education, Malaysia. His research shows that level of the behavior of Polytechnic students in terms of aqidah is high whereas it is average in terms of ibadah and akhlak (Alias, 2010).

The interesting thing about this research outcome is that students have almost the same level of practice in terms of akhlak and ibadah, that is, 94.0 percent of respondents are at a high level of ibadah practice, 6.0 percent of respondents have an average level of ibadah practice and none (0.0 percent) at a low level. And 96.0 percent which represent 96 respondents are at a high score level of akhlak practice and only 4.0 percent which represent 4 respondents are at an average level, and none (0.0 percent) at the low level of akhlak practice. This shows that ibadah practice influences student behavior. The higher the ibadah practice, the better their akhlak. This is proven in a study by Asmahan (2009). The purpose of performing specific ibadah in Islam such as prayers, reading al-Quran, fasting in Ramadan, paying zakah and performing Haj are not merely requirements of Islamic teachings, but also to improve moral character and behavior. According to Abdul Karim Zaydan (1972), each thing done by a Muslim in his life in compliance with Allah's command is considered as ibadah and purification of his or her soul. Hence, akhlak is closely linked with implementation of the ibadah aspect because a sound akhlak will lead to doing well and leaving that which is prohibited by God (Ibn Taimiyyah 1981, Zakaria, 2001).

This discussion explains that akhlak is among that which cannot be neglected in the life of a student. The Prophet (pbuh) was deeply concerned about the importance of an honourable character as stated in a hadith:

“There is nothing which outweighs more on a weighing scale than an honourable character and one with such a character may achieve the rank of he who fasts and prays ” (al-Tirmidhi, *Kitab (23) al-Bir wa al-Silah*, Bab (60) *ma Ja'a fi al-Husn al-Khuluq*)

This explains that all knowledge learnt would be meaningless if it were not applied in life. A learned person who does not practise his knowledge would find it difficult to attain happiness because as al-Ghazali (2000) stated, true happiness is part of happiness achieved through *al-nafsiyyah* factor such as knowledge (especially gnosis of Allah s.w.t) and practice which comprise of ibadah and honourable character (al-Ghazali, 2000). It also explains that the relationship of these three aspects is very crucial in a person's life. Al-Ghazali (2000) concludes that an honourable character is half of religion and training for those who practise ibadah.

## 13. Conclusion

Islamic teachings which is contained in the Qur'an and Sunnah are to be practiced by Muslims themselves. There are three aspects of the teachings in Islam that need to be practiced, which is *aqidah* (belief), *ibadah* (worship) and *akhlak* (moral character). In the context of research, sometimes it is difficult to measure the level of one's religious practices. With the establishment of the Islamic Educational it can measure the level of religious practice among the adolescents. There will be more in-depth research and several measurement instruments could be developed further and use in the field of Islamic studies. Analysis of respondent's *aqidah* practice shows that all respondents (100.0 per cent) are at high score level. Meanwhile, research findings about the level of *ibadah* practice, show 94.0 per cent of respondents are at a high level of *ibadah* practice. This shows that on the whole the level of *ibadah* practice of the majority of respondents (94 percent) is high. The level of *akhlak* practice shows 96.0 percent which represent 96 respondents is at a high score level. Outcome of the overall level of Islamic practice researched in terms of *aqidah*, *ibadah* and *akhlak* is showed that 98.0 per cent of respondents have a high score of Islamic practice. This finding shows that the course Islamic Education has a good effect on Islamic practice in the aspect of *aqidah*, *ibadah* and *akhlak*. Finally, this research finds that some improvement of the curriculum is required to improve the level of religious practice among youth. This research suggests that the syllabus of Islamic education implemented in the polytechnic stress more on practical sessions, especially in specific *ibadah* exercises and morals/ character in daily life. Practical sessions or hands-on learning suit the objectives of Islamic education as a form of Islamic practice among students and is suitable for technical stream students who are more exposed to teaching and learning through the hands-on method. In addition, it is suggested that the *akhlak* aspect be part of the marking scheme as the objectives of Islamic Education is not only to produce knowledgeable practising students but also to nurture a suitably Islamic student character. It is suggested that drafters of the Islamic Education curriculum should not only measure the knowledge aspect of students since secondary school days, but more importantly, use reinforcement on students to practise Islamic teachings throughout their lives.

#### Acknowledgements

This research received a grant from Research University(GUP), University Kebangsaan Malaysia. Project Code(UKM-GUP-TKS-07-08-076).

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# The Development of a Provincial Green and Happy Society Index in Thailand: The Richer You Are, the Happier You Are

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Received: December 16, 2014 Accepted: March 9, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p48

URL: <http://dx.doi.org/10.5539/ass.v11n24p48>

## Abstract

This paper aims to develop the GHI at the provincial level, in order to reflect obvious levels of development under the eleventh National Economic and Social Development plan (2012–2016), which can be used to monitor, evaluate, and report the performance of a green and happy society. It will also encourage awareness and the formation of networks in the development of the GHI in each province. There are six dimensions of the GHI, the values and levels of which depend on data availability, benchmarking, and index classification. The panel data along with the random analysis implies that the provincial GHI calculation, using area approach benchmarking, is more accurate than the national calculation. In addition, this analysis also implies that wealthier people in the provincial areas are more likely to be happier than their poorer counterparts.

**Keywords:** Green and Happy Society Index, Provincial GHI, Thailand

## 1. Introduction

Since World War II, nations have equated economic growth with an increase in the production and consumption of goods and services, which are indicated by increasing Gross Domestic Product (GDP). Therefore, GDP has become the standard measure of economic progress, even though it was only intended to be a macroeconomic accounting tool. All nations generally applaud increases in GDP. However, the problem with GDP is that it does not separate costs from benefits, but rather, it simply adds them together under the generic heading of economic activity. Using GDP to gauge progress is indicative of an increase in well-being, but this is dependent on whether the social costs of such an increase outweigh the benefits. At the individual level, economic activity is required for well-being. However, this relationship becomes very weak after a low per capita GDP is achieved. Simon Kuznets, the Nobel laureate who developed the GDP measurement, warned the U.S. Congress in 1934 that, "the welfare of a nation can scarcely be inferred from a measurement of national income." Later on, different alternatives for measuring economic progress were introduced.

The United Nations Development Programme (2009) measures a nation's achievement in terms of three different aspects relating to human development: (i) a long and healthy life, as indicated by life expectancy at birth; (ii) knowledge, as indicated by literacy; and (iii) school enrollment rates, and a decent standard of living as indicated by GDP per capita. Although the first two components of HDI address specific societal goals, the GDP component is not an adequate proxy for well-being. Herman and John (1994) developed a genuine progress indicator (GPI), which was a refined version of the index of sustainable economic welfare. GPI begins with the same personal consumption data as GDP, but it can be adjusted so that it accounts for factors such as income distribution, and also adds factors such as the value of household and volunteer work, whilst subtracting factors such as the costs of crime and pollution.

The Global Footprint Network (2009) uses an ecological footprint to measure how much land and water area a human population requires to produce the resources that are consumed and to absorb its waste under the prevailing technology. The New Economics Foundation uses a Happy Planet Index (HPI), which measures the ecological efficiency through which human well-being is attained. It is calculated by multiplying the indices relating to life and life expectancy and dividing that product by the ecological footprint. Nations score well when they achieve high levels of satisfaction and health, while only lightly impacting environmental resources (Marks et al., 2006).

A survey of economic and ecological news from around the world illustrates that human economies have entered a phase of growth wherein costs are outpacing benefits. Evidence of these costs are demonstrated in terms of climate disruption, extinction of species, intense competition for natural resources, declining ecological services, widespread unemployment and poverty, and massive inequity in respect to the wealth distribution. The global economy and GDP of many nations has grown consistently for many years, but human well-being and ecological health have not kept pace with such growth. These scenarios are also prevalent in Thailand.

The developmental direction of Thailand has been geared towards well-being as laid out in the eighth and ninth National Economic and Social Development Plans, and towards the formation of a green and happy society as detailed in the tenth Plan. The National Economic and Development Board (NESDB), as the national central planning agency, developed the “Well-Being Index” during the Eighth Plan, along with the “Economic Strength Index” and “Sustainable Development Index” during the Ninth Plan. However, the NESDB was still unable to evaluate the impact of development towards a green and happy society, which was the primary focus of the Tenth Plan, influenced by the Sufficiency Economy Philosophy (SEP) of His Majesty King Bhumibol Adulyadej. In this regard, the country’s capital must be enhanced in order for people to live in peace within the existent human and natural resources. Through developing social capital, such as health, education, and culture, Thai people will enjoy a better quality of life and also attain integrity and knowledge capital. In addition, the economy will become efficient, stable, and equitable through economic enhancement. Biodiversity, natural resource bases, and environmental quality will also be attained as a result of the conservation of natural resources. Good governance at all levels must be exercised in the development process. In light of these developments, the office of NESDB developed the Green and Happiness Index (GHI), to monitor and evaluate the developmental impact of the tenth Plan’s on the well-being and happiness of Thai people and society as a whole at the national level.

During the eleventh Plan (2012–2016), the office of NESDB increases its efforts to lift GHI development at the provincial level, and targeted two main objectives: (i) to develop and test the validity of the constructed GHI at the provincial level, in order to reflect the obvious levels of development under the guidelines of the eleventh Plan. The development index will be used to assess socio-economic and environmental changes and also measure the developmental impact at the provincial level; and (ii) to encourage awareness and the formation of networks in the development of the GHI in each province. These networks are expected to contribute to the sharing of knowledge, understanding, and the acceptance of GHI as a tool for furthering common development in all the provinces. In light of the above objectives and developments, the author was assigned to conduct this development project.

The remainder of this paper will tackle the following topics. Section 2 will describe the concept relating to a Green and Happy Society, the correlation between income and happiness, and related methodologies. In Section 3, the results of the provincial GHI calculations will be presented. This section will also elaborate and discuss the validity of the developed the Green and Happy Society Index (GHI) and the implication of its relationship with provincial income and per capita gross provincial product. Finally, Section 4 will document the conclusions for each topic.

## **2. Concept and Methodology**

### *2.1 The Concept of a Green and Happy Society*

Using the application of His Majesty King Bhumibol Adulyadej’s SEP, the NESDB laid out the GHI at national level with the aim of balancing six domains in a holistic manner. Creating happiness is a process which stretches from micro to macro levels. Firstly, individuals should be happy because they are self-reliant, and this contentment should then be further developed to groups and networks. Subsequently, this will then influence outside communities, and reach higher levels of society. With respect to the individual level, the focus is placed on health and family, and in particular, the relationships among family members. Empowering members is the main concern at the community level, while at the national level, economic, social, natural resources, and the environment are the major issues, as well as good governance. Therefore, all the factors including health, family, community, economic, social, natural resources, the environment, and good governance are closely related, in order to create a sustainable and happy society. Living conditions and societal development are shared values, which place stress on the ethical mind. Happiness is experienced from that inner part of ourselves, which is concerned with freedom, having a peaceful mind, being a good person, and from the outer part that is related to relationships with other people, having a warm family, and security in life. GHI is reflective of the ends that are linked to the means of development. As aforementioned, the definitions and components of the index are set up to enable the calculation of GHI.

**A Green and Happy Society** means a state of well-being for Thai people, with a good quality of life, that is both

physically and mentally well balanced. The economic, social, and environmental aspects are integrated to form a peaceful and harmonious society.

In this respect, six fundamental dimensions are included: (i) health, (ii) a warm and loving family; (iii) community empowerment; (iv) economic strength and equity; (v) the surroundings and ecological systems; and (vi) democratic society with good governance.

**Health** is used in reference to the state of an individual who is healthy and enjoys longevity, and upholds morals, ethics, and conscience, and who is willing to learn, and has the capability to carry out “conceptual thinking and practical skills”, which are reasonable, and who is able to live peacefully in a society. In this respect, there are two sub-components: (1) physical and mental health, which includes physical health and proper behaviour, as well as the ability to control emotions and adjust to changes; and (2) intelligence, which includes the ability to learn, apply knowledge and skills, and uphold morals and ethics.

**Warm and loving family** refers to two persons who at least, have mutual affection and aim to live together peacefully, and have proper roles and maintain good relationships. In this respect, there are three sub-components: (1) the family role concerns appropriate family roles and responsibilities among family members and takes into account the love and care that is given, especially for children and older persons; (2) family ties concerns the strong relationships and support for others and takes into account their intentions to build families and problem-solve; and (3) self-dependence is inclusive of income, housing and adequate infrastructure and also takes into account income, and the existence of a permanent dwelling.

**Community empowerment** refers to a community that is peaceful and empowered. Members of a community are united and self-reliant. A community has learning processes, and maintains local traditions, culture, and wisdom. There are two sub-components: (1) self-reliance, which concerns unity, effective problem-solving, and having learning processes in place within the community, the upgrading of living standards, and the development of the local economy; (2) a supportive community, which concerns the existence of a loving, caring, and harmonious community, respectful minds by taking into consideration local welfare provisions and also caring and sharing.

**Economic strength and equity** refers to individual employment, adequate income, and job security and also considers whether the economy is sound and stable, provides fair incomes with adequate distribution and if it is able to reduce the income gap and poverty. The three sub-components are: (1) good work, which includes having a job, productivity, safety, sufficient income by means of considering employment, and work security; (2) economic strength is related to stable economic growth, self-reliance, productivity, and the ability to adjust to global changes by considering stability and sustainability; and (3) equity is related to poverty reduction, prosperity, and fair income distribution.

**Surroundings and ecological systems** refers to access to basic needs, enjoying safety in respect to life and property, a quality environment and well-balanced ecological systems, which support quality of life and sustainable society. There are three important sub-components, which are namely: (1) security in life and property in respect to the reduction of crime and drug problems, having effective laws and a sound judicial system by considering legal cases, especially those related to crime and drugs; (2) good environmental quality in respect to the control of pollution, which affects quality of life; (3) ecological systems in respect to the existence of measures to facilitate a balance between the preservation and utilisation of natural resources for maintaining the ecosystem.

**A democratic society with good governance** is a state in which an individual has rights, freedom, dignity, and relationships based on justice and equality, as well as participation in the national administration in order to create good governance with transparency, value for money, and equity, which will in turn lead to a harmonious and peaceful society. In this respect, there are three sub-components: (1) democratic awareness concerning the awareness of rights, responsibilities, freedoms, and having dignity, especially in regard to politics, as well as active participation in politics and public administration by considering the respective rules and regulations, protecting rights, and participating in development; (2) good governance and transparency in the public and private sectors, along with the participation of developmental partners, fair distribution, and decentralisation; and (3) a harmonious society is a society which lives together regardless of culture, race, ethnic group, or religion through consideration and acceptance of the differences in respect to race, religion, and culture.

For the provincial study, GHI development follows the above mentioned national defined level for the purpose of comparing GHI levels and changes across the country.

## 2.2 Correlation between Income and Happiness

Several academics have long investigated the correlation between income and happiness, using certain inter-changeable words for happiness, such as well-being, quality of life, and life satisfaction. The use of such words is likely to be dependent on the level of study; macro or aggregate and micro.

For the study at aggregate level, Easterlin (2003); Frey and Stutzer (2002) found that increases in income have a mostly transitory effect on an individuals' reported satisfaction with life. However, large increases in income for a given country over time, are not associated with increases in average subjective well-being. Easterlin (1995) also found that the fivefold increase in real income in Japan between 1958 and 1987, did not coincide with an increase in the average self-reported happiness level. Although average life satisfaction in countries tends to rise with GDP per capita at low levels of income, there is little, or no further, increase in life satisfaction once GDP per capita exceeds \$10,000.

At the micro level, several scholars found there was a low correlation between life satisfaction and household income. The correlation between personal income and the average happiness rating was only 0.01, while family income was significantly positively correlated, with the following: (i) anger/hostility ( $r = 0.14$ ); (ii) anxiety/tension ( $r = 0.14$ ); and (iii) excitement ( $r = 0.18$ ). Thus, higher income was associated with more intense negative experienced emotions and greater arousal, but it did not provide greater experienced happiness (P. Schnall, J. Schwartz, P. Landsbergis, K. Warren, & T. Pickering, 1998). There are several explanations as to why income has a weak effect on subjective well-being. Duesenberry, 1949; Easterlin, 2003; and Frank, 1999 argued that relative income, rather than the level of income, affects well-being i.e., earning more or less than others, has a greater influence than how much one earns. As society grows richer, the average rank does not change, and so the relative income hypothesis could explain the stability of average subjective well-being despite national income growth (Clark & Oswald; 1996; Ferrer-i-Carbonell, 2005; Luttmer, 2005). Additionally, Easterlin (1995; 2003) argued that individuals adapt to material goods, while Scitovsky (1976) also argued that material goods yield little joy for most individuals. Thus, increases in income, which are expected to raise well-being by raising consumption opportunities, may have little lasting effect, because the consumption of material goods has little effect on well-being above a certain level of consumption. Stutzer and Frey (2004) and Kahneman et al (2004) explained that many people seek high income, because they over predict the increase in happiness, due to the illusion that changes in relative income are associated with strong emotional responses. However, the long-term effects of these changes are relatively small, because attention eventually shifts to less novel aspects of daily life.

The relationship between well-being and income is still controversial. The Easterlin Paradox, a key concept in happiness economics discussed by Easterlin (1974) suggested that "high incomes do correlate with happiness, but long-term, increased income doesn't correlate with increased happiness". Contrarily, Hagerty and Veenhoven (2003) published an analysis based on various sources of data, and concluded that there is no paradox and populations were indeed happier with increased income. Diener & Seligman (2004) also found that even though GDP has tripled over the past 50 years in the United States, life satisfaction has remained unchanged. In contrast, rates of depression and anxiety have increased dramatically (Klerman et al., 1985; Robins et al., 1984; Twenge, 2000). The overabundance of available goods and services in developed nations does not therefore reflect the subjective well-being of the population. This situation has been described as the "progress paradox" (Easterbrook, 2003). In 2008, Stevenson and Wolfers published a paper in which they reassessed the Easterlin Paradox using new time-series data. As with Veenhoven et al., they concluded that, contrary to Easterlin's claim, the increases in absolute income are clearly linked to increased self-reported happiness, both for individuals and entire countries (Abdullah, 2012; Stevenson & Wolfers, 2008). Easterlin et al. (2010) published data reaffirming the paradox using a sample of 37 countries in a report prepared for the United Nations in 2012.

Regarding income, Layard, Clark and Senik (2012) suggested that happiness is not only affected at the absolute level. People compare their income to others, so relative income also has an impact. Higher levels of income inequality may therefore reduce happiness. They also pointed out that other variables covary with wealth, including social trust which may influence the drive towards the association of GDP per capita with well-being. Helliwell, Layard and Sachs (2015) concluded that among the more "external" factors, key determinants of happiness include: income, work, community and governance, together with values and religion. Among the more "personal" features, key determinants include: mental health, physical health, family experience, education, gender and age.

There are several determinants of well-being, both macro/micro and external/internal. At an early stage of study on provincial happiness, the author attempts to develop the GHI at provincial level and investigate the relationship between such index and per capita provincial product as a proxy of provincial income in Thailand.

## 2.3 Methodology

### 2.3.1 Selection of Indicators

Even though this study applies the GHI indicators based on a national approach, there may be some differences; particularly, those indicators which reflect the context of each area. Therefore, the indicators are divided into two types: generic indicators (G) at the national level which are appropriately applied for provincial level, while specific indicators (S) which are selected by the public and concerned authorities to reflect the well-being and happiness of people in provincial areas. In summary, a total of 44 indicators comprising 28 generic and 16 specific are included in the GHI (Table 1). In addition, benchmarking for some indicators is also applied for two cases at national and provincial level and these will be discussed later.

### 2.3.2 Construction of the Provincial GHI

Simple and composite methods are used to calculate equally-weighted GHI. The benchmarks for the calculation of each indicator may be divided as follows: 1) after the national GHI has been set, several methods will be used, such as planning, strategy and international benchmarks which are denoted as  $\sum(G+S)_n$  and  $G_n$ ; 2) data available from the Tenth or Eleventh Plan, and from each province denoted as  $\sum(G+S)_f$ ,  $G_f$  and  $S_f$ , as shown in Table 2.

### 2.3.3 Classification of the Provincial GHI Level

This study uses the coefficient of variation (CV) to classify the development level of the GHI for each province instead of the interval value, since the maximum value of the GHI is not captured at 100 resulting from the differential types and/or benchmarks of each indicator. The GHI is classified into five levels according to the CV: less than 100-CV for low level, more than 100-CV to 100-CV+I for moderately low level, more than 100-CV+I to 100-CV+2I for moderate level, more than 100-CV+2I to 100-CV+3I for moderately high level, and more than 100+CV for high level, where I is the interval value for the calculated GHI based on various types and benchmark indicators during the study period (2007–2012).

### 2.3.4 Validity of the Constructed Provincial GHI

Adopting the random effect method, panel data is used to analyse the relationship between income wealth, GPP per capita as a proxy, and the GHI. The results should reveal the cause and effect as well as reflecting the validity of the calculated GHI based on various types and benchmark indicators.

Table 1. Dimensions, components, and categories of selected indicators of GHI at the provincial level

Dimensions	Components	Indicators	Type of Indicator
Health	Physical and mental health	Illness rate per 1,000 population	Generic (G)
		The success rate of suicide per 100,000 population	Generic(G)
		Life expectancy at birth	Specific (S)
	Morality, intelligence and curiosity	Proportion of criminal cases per 1,000 population	Generic(G)
		Achievement in 4 core-subjects of pupils in primary and secondary school (average scores)	Generic(G)
		Population aged 15 years and older graduate secondary school	Specific(S)
Warm and loving family	Appropriate family roles	Rate of juvenile detention by the prosecution per 1,000 youths	Generic(G)
		Ratio of the elderly to labour	Specific(S)
	Family relationship and support	Number of incidents of family violence	Generic(G)
		Proportion of divorces per 1,000 population	Specific(S)
	Family self-reliance	Ratio of debt to household income	Generic(G)
		Percentage of households with stability in the housings and permanent dwellings	Generic(G)
Community empowerment	Community self-reliance	Percentage of households with adequate clean water consumption throughout the year	Generic(G)
		Financial stability and security of the community organizations	Generic(G)
		Proportion of community enterprises with good potential level of operating performance	Generic(G)



Dimensions	Components	Indicators	Type of Indicator	
	Supportive community	Proportion of villages with self-learning process	Generic(G)	
		Percentage of households with family members to be community organization's members that provide social welfare per 1,000 households	Generic(G)	
		Ratio of community organization's social welfare expenses to number of its members	Specific(S)	
Economic strength and equity	Employment and job security	Employment rate	Generic(G)	
		Ratio of workers who receive welfare to total labour forces	Generic(G)	
		Number of accidents, dangers, and occupational diseases per 1,000 workers	Generic(G)	
	Economic stability	Ratio of total demand to GPP	Generic(G)	
		Proportion of saving - investment gap in GDP	Generic(G)	
		Growth rate of GPP	Generic(G)	
		Inflation rate	Generic(G)	
	Economic equality	Gini coefficient (expenditure approach)	Poverty incidences (expenditure approach)	Generic(G)
			Growth rate of labour productivity	Specific(S)
			Growth rate of labour productivity	Specific(S)
Surroundings and ecological system	Safety in live and property	Number of cases concerning the safety in life and property per 1,000 population	Generic(G)	
		Rate of deaths from traffic accidents per 1,000 population	Generic(G)	
	Quality of environment	Amount of carbon dioxide emissions per capita (tons)	Generic(G)	
		Proportion of water sources with low quality standards in the province	Generic(G)	
		Proportion of management of solid waste under appropriate-principle	Generic(G)	
		Proportion of date with particles not larger than 10 microns (PM10) under the benchmark	Generic(G)	
		Proportion of solid waste that can be utilized by 3R principle	Specific(S)	
	Balanced ecological system		Proportion of conservation forest areas to the total province's areas	Generic(G)
			Quantity of fresh water fishery from natural sources	Specific(S)
			Quantity of fresh water fishery from aquaculture	Specific(S)
			Proportion of renewable energy uses per capita	Specific(S)
			Ratio of safety agricultural areas under GAP standard to total agricultural areas	Specific(S)
Democratic society with good governance	Democratic awareness	Number of pesticide stores	Specific(S)	
		Proportion of the voters	Specific(S)	
		Number of complaints of anti-corruption (from the date of the NACC's resolution)	Specific(S)	
		Number of complaints about human rights	Specific(S)	

### 3. Result and Discussion

#### 3.1 The Constructed and Differentiation of the GHI in the Studied Provinces

The development of the GHI utilises secondary data in the tenth Plan (2007–2011) and in the first year of the eleventh Plan (2012). Information retrieved from related databases, discussions, and workshops involving concerned governments, and private and public representatives in Ratchaburi province, are the major sources used to acquire the appropriate indicators for GHI at the provincial level. In fact, eight targeted provinces are included in this GHI development project. Among those, Ratchaburi is used as the pilot province for organising discussions and workshops in conjunction with the government and private and public representatives concerned, in the search for appropriate provincial green and happiness indicators. The additional seven provinces are selected

as the representatives for four regions, which are Phra Nakhon Sri Ayutthaya in Central Thailand, Kamphaeng Phet and Tak in the North, Nakhon Phanom and Nong Bua Lamphu in the Northeast, and Phuket and Yala in the South. It should be noted that these eight provinces were purposely selected in accordance with their various individual contexts including socio-economic and environmental factors. Therefore, the findings in this study are not inferential as in some case studies.

During the study period from 2007–2012, Nakhon Phanom had the highest GHI at 109.15–156.53, a moderately high to high level. Meanwhile, Kamphaeng Phet had the lowest GHI, equal to 91.35–104.09, a moderately low to moderate level. Ratchaburi, Tak, Phuket, and Yala all had moderate to high levels of GHI. In Phra Nakhon Sri Ayutthaya, the GHI fluctuated from a low to high level. Nong Bua Lamphu had a moderately high to high GHI level, although this finding was based on incomplete data. It can be seen that the GHIs of the eight provinces vary greatly depending on three factors. Firstly, when including the components of the two categories of generic and specific indicators, either together or separately. Secondly, the calculation of the GHI based on benchmarking, following the national GHI and the data available from each province in the Tenth or Eleventh Plan. Finally, classification of the GHI when the CV is applied. For these calculations, the GHI is therefore denoted as  $(G+S)_n$ ,  $(G+S)_f$ ,  $G_n$ ,  $G_f$ , and  $S_f$ , as shown in Table 2. The GHI varies both within and between each province. These results are inconclusive regarding the relationship tendency between happiness and provincial income. Therefore, further in-depth investigation is required through panel data analysis.

Detailed descriptive findings (not presented in this paper), show that factors contributing to a green and happy society at the provincial level involve community empowerment, which reflect complementary and self-reliant social conditions. These involve partnerships with community organisations, strong development networks, generosity, unity, a harmonious peaceful existence, the upholding of traditional values, unique culture, and local wisdom. However, health is a debilitating factor. These results are consistent with Helliwell, Layard and Sachs (2015) who indicated several factors determining happiness.

### 3.2 Validity and Relationship of the Constructed Provincial GHI

This study employs 48 observations (8 provinces, 6 years) to analyse the relationship between calculated GHI and GPP per capita. The result in Table 3 shows that most F-statistics are statistically significant at the .01-1% level. This indicates that both fixed and random effect models are better than the pooled OLS model. Furthermore, the Hausman statistic is statistically significant at a level higher than chi-square, indicating that the random effect model is more suitable than that of the fixed effect. It is noted that the GHI, using a benchmark based on the data available from the Tenth or Eleventh Plan, namely,  $(G+S)_f$ ,  $G_f$ , and  $S_f$  in equations (2), (4) and (5), has a positive relationship with GPP per capita. However, its coefficients are minimal at 0.0000146, 0.00000274, and 0.0001059, respectively. Only the specific index ( $S_f$ ) has a significantly positive influential effect on GPP per capita. These results imply that the calculation of the provincial GHI, using a benchmark based on the area approach concept, is more accurate than those which follow the national GHI. In particular, the calculation of a specific index reflects the context of each province. These results also highlight the fact that wealthier people in the provincial areas are more likely to be happier; consistent with the Easterlin Paradox (1974), since a set of data for 6 years (2007–2012) is employed which should be considered as a short-term period correlation of income and happiness in the eight study provinces.

All the above results indicate that when the GHI is used for implementation, monitoring, evaluation, and network creation, the following factors should be taken into consideration:

- 1) The level of the GHI depends on several factors, such as data availability, benchmarking, and index classification. Therefore, various methods that reveal the relationship between the GHI and any hypothesised variable should be investigated for validity. This study uses panel data analysis, with a random effect model, to reveal the relationship between the calculated GHI and GPP per capita. The results imply that the calculation of the provincial GHI, with a benchmark based on the data available in each area, is more accurate than those calculations which follow the national GHI. In particular, the calculation of a specific index should truly reflect the context of each province. With regards to the development of the GHI, where the maximum value of any index is not captured at 100, a coefficient of variation should be used to classify the development level of a green and happy society for each area.

- 2) In addition, this study has the following suggested guidelines in respect to network creation for the development of the provincial GHI:

- 2.1) The central planning government agency which is responsible for green and happy society development, should support the GHI construction by providing a concrete conceptual framework, indicator compilation, and index calculation. The Provincial Office of Statistics, and/or the Provincial Office of Community Development,

should be assigned as the coordinators for all the concerned agencies to compile data and information for the construction of the provincial DHI, and for monitoring, and evaluations based on a well-developed GHI. These processes should consequently be submitted to the Office of the NESDB, which will serve as a guideline for the establishment of a new appropriate policy, and eventually achieving the objective of a green and happy Thai society at a higher level.

2.2) The selection of indicators for the GHI should take into account their status. Some environmental indicators do not indicate the difference between the quality of life and the happiness of the people in the whole country and in the individual provinces, i.e., indicators for public good or public bad should measure the overall level, rather than any specific area, and the relatively constant indicators from the BMN database should not be included. Measuring the total number should be replaced by proportion. In addition, indicators for children and the perceived health status should also be included.

2.3) The results of this study show that the application of national level indicators as a framework at the provincial level, may not be appropriate as a top-down guideline for such development. Therefore, the indicators should be developed from an area, or bottom-up, approach. Therefore, the office of the NESDB should support GHI development wherein the area approach is used to obtain indicators that truly reflect the geography, society, lifestyle, culture, economy, environment, and natural resources of each province. A standard questionnaire should be constructed and used as a tool for data collection, and it should be valid in terms of content and indexing accuracy, which are consistent with the contexts of the provincial areas. In addition, most prior-determined indicators are physical, despite the efforts taken to use physical indicators to reflect mentality. Additionally, mental indicators should also be included to indicate the real quality of the minds of the people.

2.4) A national database should be set up to report and collect data for suggestions regarding the timely and continuous development of the GHI at the provincial level. This study also concerns the development of a preliminary database which is not presented in this paper, but should be a basis for further development.

#### 4. Conclusion

Since the Eighth Plan, Thailand has geared itself towards improving the well-being of its citizens in accordance with the guidance provided by the SEP under the direction of His Majesty King Bhumibol Adulyadej, and through which the NESDB has developed the GHI to measure the well-being and happiness of Thai people and society at a national level. GHI development has risen steadily at the provincial level culminating in the advent of the Eleventh Plan. This study develops the provincial GHI in accordance with the national approach, by using a total of 28 generic and 16 specific indicators to reflect the well-being and happiness of people in provincial areas. An equally-weighted GHI was calculated, based on the two benchmarks of national and area levels for the period from 2007–2012. This shows that GHI values levels in eight pilot provinces vary greatly from moderately low to high, depending on data availability, benchmarking, and index classification.

The results of the panel data analysis, using a random effect model, reveal that the specific index ( $S_f$ ) is the only one which has a significantly positive influential effect on GPP per capita. This implies that the calculation of the provincial GHI, using a benchmark based on data that is available from the provincial areas, is more accurate than those which follow the national GHI. It should also be noted that these results show that the wealthier people in the provincial areas are more likely to be happier. However, this pilot project contains limit data, and thus, all the happiness of people in all the provinces in Thailand should be further investigated. In addition, when using the GHI, the following factors should also be considered, i.e., the indicators for public good or public bad, and the constant BMN indicators should not be included. The application of national level indicators as a framework for the provincial level, may not be appropriate as a top-down guideline for this development. In addition, there should be support for GHI development based on the area approach. In addition, the development process should focus mainly on improving physical and mental health, morality, and intelligence. Health status and mental indicators for children should be included in order to reflect the individual intellectual ability of the people. The determination of provincial happiness rather than income should be investigated at an aggregate and individual level, as well as in the short and long-term.

In conclusion, these results, proposed approach, and analytical tools provide a good basis for researchers, developers, practitioners, and local people in deciding how best to improve the GHI development at provincial level. These practical guidelines, however, should further prove useful for concerned networks in all areas.

Table 2. Provincial levels of green and happiness society as classified by the coefficient of variation adjusted GHI index

Province	Periods	Ranges of GHI index											Average GHI	GHI Level						
		GHI based on benchmarking																		
		2007	2008	2009	2010	2011	2012	CV	Interval	low	Moderately low	Moderate			Moderately high	High				
Ratchaburi	(G+S)n	81.62	92.52	124.57	119.01	144.72	117.00	20.12	13.41	79.88	79.88	93.29	93.29	106.71	106.71	120.12	120.12	113.21	Moderately high	
	(G+S)f	100.00	109.12	134.10	124.73	156.21	112.87	16.50	11.00	83.50	83.50	94.50	94.50	105.50	105.50	116.50	116.50	112.83	High	
	Gn	63.42	59.28	105.98	86.36	96.93	131.43	29.96	19.97	70.04	70.04	90.01	90.01	109.99	109.99	129.96	129.96	90.57	Moderate	
	Gf	100.00	102.52	133.99	115.95	134.98	127.49	12.97	8.65	87.03	87.03	95.68	95.68	104.32	104.32	112.97	112.97	119.16	High	
	Sf	100.00	140.52	153.03	168.64	215.78	95.72	30.87	20.58	69.13	69.13	89.71	89.71	110.29	110.29	130.87	130.87	145.61	High	
	GPP per capita (1,000 Baht)	126.09	135.28	144.03	160.32	165.00	162.39													
	Phra Nakhon Si Ayutthaya	(G+S)n	94.28	85.71	96.19	89.94	111.14	136.85	18.55	12.36	81.45	81.45	93.82	93.82	106.18	106.18	118.55	118.55	102.35	Moderate
		(G+S)f	100.00	100.97	104.22	106.57	123.26	137.84	13.52	9.02	86.48	86.48	95.49	95.49	104.51	104.51	113.52	113.52	112.14	High
		Gn	99.79	72.82	79.97	88.27	86.60	84.23	10.56	7.04	89.44	89.44	96.48	96.48	103.52	103.52	110.56	110.56	85.28	Low
		Gf	100.00	97.65	93.66	115.18	109.43	101.99	7.71	5.14	92.29	92.29	97.43	97.43	102.57	102.57	107.71	107.71	102.99	Moderately high
Sf		100.00	123.49	133.32	106.86	180.79	265.37	41.27	27.51	58.73	58.73	86.24	86.24	113.76	113.76	141.27	141.27	151.64	High	
GPP per capita (1,000 Baht)		336.64	429.44	373.86	422.98	364.75	377.24													

Table 2 (Continued)

Province	GHI based on benchmarking	Periods														Average GHI	GHI Level			
		Ranges of GHI index																		
		2007	2008	2009	2010	2011	2012	CV	Interval	low	Moderately low	Moderate	Moderately high	High	CV					
Kamphaeng Phet	(G+S)n	87.88	77.80	88.33	115.61	123.04	105.58	17.83	11.89	82.17	82.17	94.06	94.06	105.94	105.94	117.83	117.83	99.71	Moderate	
	(G+S)f	100.00	90.35	93.37	107.75	103.31	102.54	6.56	4.37	93.44	93.44	97.81	97.81	102.19	102.19	106.56	106.56	99.55	Moderate	
	Gn	81.25	68.87	85.54	123.80	113.18	75.44	24.10	16.07	75.90	75.90	91.97	91.97	108.03	108.03	124.10	124.10	91.35	Moderately low	
	Gf	100.00	92.82	94.96	134.05	105.38	97.31	14.71	9.81	85.29	85.29	95.10	95.10	104.90	104.90	114.71	114.71	104.09	Moderate	
	Sf	100.00	98.78	94.52	98.94	105.24	115.98	7.39	4.93	92.61	92.61	97.54	97.54	102.46	102.46	107.39	107.39	102.24	Moderate	
	GPP per capita(1,000 Baht)	89.15	96.50	90.30	96.90	114.90	140.22													
	Tak	(G+S)n	96.32	108.72	109.11	143.77	110.64	133.85	15.28	10.19	84.72	84.72	94.91	94.91	105.09	105.09	115.28	115.28	117.07	High
		(G+S)f	100.00	109.30	110.21	114.26	106.92	136.43	11.05	7.37	88.95	88.95	96.32	96.32	103.68	103.68	111.05	111.05	112.85	High
		Gn	79.22	81.35	95.93	127.64	92.57	96.66	18.18	12.12	81.82	81.82	93.94	93.94	106.06	106.06	118.18	118.18	95.56	Moderate
		Gf	100.00	104.94	107.69	103.32	98.70	115.80	5.89	3.93	94.11	94.11	98.04	98.04	101.96	101.96	105.89	105.89	105.08	Moderately high
Sf		100.00	110.26	122.29	134.12	123.44	141.98	12.54	8.36	87.46	87.46	95.82	95.82	104.18	104.18	112.54	112.54	112.02	High	
GPP per capita(1,000 Baht)		56.42	56.81	58.71	67.60	69.91	73.43													

Table 2 (Continued)

Province	GHJ based on benchmarking	Ranges of GHJ index													Average GHJ	GHJ Level				
		Periods																		
		2007	2008	2009	2010	2011	2012	CV	Interval	low	Moderately low	Moderate	Moderately high	High						
Nakhon Phanom	(G+S)n	131.54	110.25	131.15	145.33	186.76	234.14	29.24	19.49	70.76	70.76	90.25	90.25	109.75	109.75	129.24	129.24	156.63	High	
	(G+S)f	100.00	104.60	97.30	118.47	117.96	116.59	8.83	5.89	91.17	91.17	97.06	97.06	102.94	102.94	108.83	108.83	109.15	High	
	Gn	137.93	73.63	138.07	102.60	173.89	247.54	41.59	27.73	58.41	58.41	86.14	86.14	113.86	113.86	141.59	141.59	145.61	High	
	Gf	100.00	100.76	108.35	96.91	119.19	120.18	9.41	6.27	90.59	90.59	96.86	96.86	103.14	103.14	109.41	109.41	107.57	Moderately high	
	Sf	100.00	99.85	94.49	129.85	132.74	134.03	16.35	10.90	83.65	83.65	94.55	94.55	105.45	105.45	116.35	116.35	115.16	Moderately high	
	GPP per capital(1,000 Bath)	32.45	36.60	43.67	48.80	51.78	62.76													
	Nong Bua	(G+S)n	83.77	98.66	564.46	568.56	424.50	557.65	60.68	40.45	39.32	39.32	79.77	79.77	120.23	120.23	160.68	160.68	382.93	High
		(G+S)f	100.00	99.48	106.61	110.08	107.87	174.33	24.66	16.44	75.34	75.34	91.78	91.78	108.22	108.22	124.66	124.66	116.4	Moderately high
		Gn	61.95	48.07	871.62	613.66	455.22	610.85	74.25	49.50	25.75	25.75	75.25	75.25	124.75	124.75	174.25	174.25	443.56	High
		Gf	100.00	100.39	110.84	102.84	108.27	185.22	28.20	18.80	71.80	71.80	90.60	90.60	109.40	109.40	128.20	128.20	117.93	High
Sf		100.00	96.87	97.09	114.80	126.84	149.83	18.46	12.31	81.54	81.54	93.85	93.85	106.15	106.15	118.46	118.46	114.24	Moderately high	
GPP per capital(1,000 Bath)		28.88	28.38	31.53	35.87	38.56	41.47													

Table 2 (Continued)

Province	GHF based on benchmarking	Ranges of GHI index														Average GHI	GHI Level			
		Periods												low				high		
		2007	2008	2009	2010	2011	2012	CV	Interval	low	Moderately low	Moderate	Moderately high	high	CV					
Phuket	(G+S)n	105.45	162.77	69.63	115.61	82.81	98.15	30.61	20.41	69.39	69.39	89.80	89.80	110.20	110.20	130.61	130.61	105.74	Moderate	
	(G+S)f	100.00	95.65	109.05	109.42	126.62	159.78	20.22	13.48	79.78	79.78	93.26	93.26	106.74	106.74	120.22	120.22	116.75	High	
	Gn	132.05	253.91	47.75	120.21	65.12	48.14	70.82	47.21	29.18	29.18	76.39	76.39	123.61	123.61	170.82	170.82	111.20	Moderate	
	Gf	100.00	102.37	113.88	115.37	130.86	160.28	18.60	12.40	81.40	81.40	93.80	93.80	106.20	106.20	118.60	118.60	120.46	High	
	Sf	100.00	91.39	93.29	86.90	107.12	126.00	14.13	9.42	85.87	85.87	95.29	95.29	104.71	104.71	114.13	114.13	100.78	Moderate	
	GPP per capita (1,000 Baht)	201.95	201.49	174.76	185.68	201.10	224.38													
	Yala	(G+S)n	89.45	83.79	138.78	75.83	129.52	119.78	24.90	16.60	75.10	75.10	91.70	91.70	108.30	108.30	124.90	124.90	106.19	Moderate
		(G+S)f	100.00	101.69	115.73	120.76	138.01	137.88	14.02	9.35	85.98	85.98	95.33	95.33	104.67	104.67	114.02	114.02	119.01	High
		Gn	84.46	61.10	142.45	79.22	137.24	133.93	33.31	22.21	66.69	66.69	88.90	88.90	111.10	111.10	133.31	133.31	106.4	Moderate
		Gf	100.00	97.11	109.16	138.76	161.27	183.55	27.01	18.01	72.99	72.99	91.00	91.00	109.00	109.00	127.01	127.01	131.64	High
Sf		100.00	99.87	109.04	98.65	119.04	114.61	8.12	5.41	91.88	91.88	97.29	97.29	102.71	102.71	108.12	108.12	106.87	Moderately high	
GPP per capita (1,000 Baht)		86.79	89.25	83.41	118.12	134.25	112.21													

Table 3. The relationships between generic and specific indices for GHI and GPP per capita

Independent variable	(1) (G+S)n	(2) (G+S)f	(3) Gn	(4) Gf	(5) Sf
GPP per capita	-0.000211 (-0.73)	0.0000146 (0.56)	-0.000318 (-0.86)	0.00000274 (0.07)	0.0001059* (1.94)
Constant term	176.5304*** (3.17)	111.6050*** (24.65)	189.2353*** (2.91)	113.2416*** (17.36)	105.4898*** (11.13)
No. of observation	48	48	48	48	48
Adjust R-squared	0.0976	0.0062	0.0836	0.0011	0.1118
F-test	F(7,39)=6.36***	F(7,39)=1.84*	F(7,39)=4.87***	F(7,39)=2.71*	F(7,39)=1.71
Hausman test	Chi2(1)=1.75	Chi2(1)=5.57**	Chi2(1)=0.97	Chi2(1)=7.82***	Chi2(1)=0.58

Notes: 1. t-statistics in parentheses

2. \* sig. at 5%, \*\* sig. at 1%, and \*\*\* sig. at 0.1%, respectively

### Acknowledgements

This research was funded by the office of NESDB as part of the provincial green and happy society index development project, 2014. The author would like to thank all participants for their time and provided information, and all those who facilitated the research. This paper states the author's personal views, and does not necessarily reflect the office of NESDB.

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# The Development of Teachers' Career in Relationship to OCB and Justice: A Study in Malaysia

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Received: February 4, 2015 Accepted: March 14, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p62

URL: <http://dx.doi.org/10.5539/ass.v11n24p62>

## Abstract

This study is conducted to examine the relationship between organizational citizenship behaviour (OCB) and teachers' Career Advancement (CA) in the context of the Malaysian teachers. Two aspects of teachers' CA such as number of promotion (NOP) and career satisfaction (CS) have been investigated in this study. This study also explores the roles of justice (distributive justice, procedural justice, interactional justice) as moderator in the relationship between OCB and CA. The data was gathered through mail survey method from 390 respondents. First, the result showed that OCB was not significantly related to NOP as well as to CS. Second, this study found that all factors of justice were the predictor to CS but not to NOP. The results also found that there was a significant interaction between OCB and distributive justice to NOP and CS. This study contributed some new knowledge which can be channeled to the Ministry of Education (MOE) to improve the level of OCB, justice and teachers' CA, particularly in the Malaysian context.

**Keywords:** career, OCB, justice, teacher

## 1. Introduction

### 1.1 Introduction

There are several reasons for the growing interest in career research. Given that, the present study explores one of the most current research topics that is, CA. As defined by Zhao and Zhou (2008) CA is one of the objectives that all employees are looking forward throughout their career. Based on the existing literature, there are two types of CA which can be categorized as the extrinsic and intrinsic career. Previous researchers acknowledge that the extrinsic CA comprises several visible outcomes such as pay, promotion and ascendancy. Meanwhile the intrinsic CA comprises several invisible outcomes such as CS, life satisfaction and job satisfaction.

Apart from that, an important dimension which may be taken into consideration in the performance appraisal process is termed OCB (Christensen & Whiting, 2009). Since Grubb (2007) stated that performance appraisal may provide the basis for pay and promotion; hence it would have very much effect toward employees' rewards and career path (Yee & Chen, 2009). DiPaola, Tarter and Hoy (2004) call for a study to look on how OCB may be rewarded in the school context. Thus, the researcher tries to add some new knowledge regarding the relationship between OCB and CA. The core business for the Malaysian teachers is to engage them with teaching and learning (Malakolunthu & Malek, 2008). The Malaysian teachers are also expected to guide students to behave into good moral behavior (Mohd Shahrom, 2009). Given that, the Malaysian teachers are expected to demonstrate the voluntarily behaviours or OCB that are not formally part of their job. Hence, this study tries to fill in the gap on how OCB may be rewarded to teachers particularly in the Malaysian context.

Moreover, this study intends to contribute to the current literature by including organizational justice (OJ) as a moderator in the relationship between OCB and CA. To demonstrate support to the proposed moderator, this research needs to show the relationship between OJ and the predictor variables (OCB), as well as the relationship between OJ and the criterion variable (CA). In general terms, a moderator is a qualitative or quantitative variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable (Baron & Kenny, 1986). Therefore, this study attempts to examine the influence

of teachers' OCB on NOP (e.g. extrinsic CA) and CS (e.g. intrinsic CA). Next, the role of OJ as a moderator has been investigated in this study.

### *1.2 Career Advancement (CA)*

Examinations of several empirical works reveal several predictors of CA such as gender roles (Akhtar, 2010), mentoring (Okurame & Balogun, 2005), career commitment (Ballout, 2009), acquisition of social capital (Metz & Tharenou, 2001), and upward influence tactics (Zainal, 2009). Several scholars (Bergeron, 2005; Carmeli, Shalom, & Weisberg, 2007) propose the factor of OCB as a predictor of individuals' CA. However, there were inconsistent link between the relationship of OCB and CA based on the previous studies. For example, Bergeron (2005) finds that four dimensions of OCB (e.g. research OCB, advising OCB, professional service OCB, service OCB) are positively and negatively related to CA (e.g. promotion, speed to CA). However, Carmeli et al. (2007) present that there are no significant relationship between OCB (e.g. altruism, compliance) and CA (e.g. career mobility, promotion prospect). Therefore, the inconsistent results regarding the relationship between OCB and CA do not permit much knowledge to the existing literature. Thereby, it warrants a further empirical examination.

A few empirical investigations addressing individuals' CA have been reported in Malaysia (Malakolunthu & Malek, 2008; Mohd Shahrom, 2009). However, there is still lack of knowledge regarding the effect of OCB on both categories of individuals' CA. As reported in *Harian Metro* (30 September 2010), the Malaysian teachers are responsible to manage the works regarding curriculum and co curriculum. They are also expected to give the extra cares in guiding students not only during the school hours but also after school. Hence, it may mean that teachers need to perform beyond the official role of their duty, or OCB. This means that task performance alone may not be enough for teachers to fulfill their job requirements. Therefore, some works such as OCBs (e.g. stay after school hours to help students with class materials) require them to perform beyond the formal job requirements.

According to DiPaola et al. (2004), teaching is a complex activity that requires professional discretion. Thus, OCB is a useful term to describe voluntary teachers' behaviours that go the 'extra mile' to help students and colleagues. OCB is essential because schools cannot anticipate through formally stated in-role job descriptions for achieving goals. The core business for the Malaysian teachers is based on teaching and learning (Malakolunthu & Malek, 2008). However, the Malaysian teachers are often expected to be dynamic in action as resource managers, facilitators of learning and guide to good moral behavior (Mohd Shahrom, 2009). Given that, teachers' roles may not limit to perform the core business such as teaching and learning (e.g. task performance) since teachers are also expected to guide students to behave in good manners during and after school (e.g. OCB). Since DiPaola et al. (2004) call for a study to look on how OCB may be rewarded in the school context, the researcher tries to add some new knowledge regarding the impact of OCB on CA.

In Malaysia, several empirical investigations supported that there were dissatisfactions regarding teachers' CA. Muda and Omar (2006) stated that the issue of job satisfaction became important. It received a lot of complaints particularly in terms of teachers' promotion. Most teachers claimed that their salary was quite low and promotion under MOE was quite limited (Mohd Shahrom, 2009). Existing literature suggests that OJ will enhance teachers' satisfaction in performance appraisal. Teachers' performance appraisal provided the basis for teachers' career under MOE. Thus, this leads to the assumption that the presence of OJ will enhance teachers' satisfaction in their career outcomes as well. Empirical evidence suggests that employees who perceive higher level of justice tend to demonstrate more OCB. Thus, this study proposes that higher level of justice may increase the level of teachers' OCB. Hence, this study is carried out to examine the impact of OCB on CA, particularly in the context of the Malaysian teachers. In addition, the role of OJ as a moderator had been tested in this study.

### *1.3 Organizational Citizenship Behaviour (OCB)*

Over the past decade OCB research has received considerable attention because of the good impact of OCB that is believed can contribute to major success towards organization effectiveness and functioning (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Research on OCB has produced some interesting insights in organizational setting, but until recently the concept has been neglected in the study of schools (DiPaola & Hoy, 2004). Most of OCB studies prefer to focus on employees who work in a commercial setting such as hotels (Khalid & Ali, 2005), banks (Karatepe & Uludag, 2008) and manufacturing industries (Hsieh & Hsieh, 2003) rather than employees who work in a non-commercial setting such as schools. OCB research in schools is still limited (DiPaola & Tschannen-Moran, 2001). Thus, this study would like to contribute some information on the consequences of teachers' OCB especially in the Malaysian schools. Therefore, this study is designed to examine whether OCB may create any impact on teachers' CA in the Malaysian context. Teachers' OCB may include

extra effort to make lessons enjoyable and interesting, organizing extra-curricular activities and spending personal time talking with students.

However, there are two potential problems in studying OCB in the educational context. Therefore, the construct of teachers' OCB needs to be carefully operationalized (Hannam & Jimmieson, 2002). The study of OCB in teaching and other helping professions has largely been ignored. This may be because OCB is defined as helping behaviours, which makes it difficult to determine which behaviours in the helping professions are 'extra role'. As such, the construct of OCB in the teaching profession first needs to be clearly identified and unambiguously operationalized. It was not only important to categorize the various types of OCB but also to determine the level at which OCB is aimed (e.g. organization, team members, or students). OCB pitched at different levels may be motivated by different factors (Hannam & Jimmieson, 2002).

Thus, in this study the single dimension of teachers' OCB is used. OCB in school context benefits the organization, the team members and students as well (DiPaola et al., 2004). Therefore, OCB in school have been combined into a single construct. To this end, the single dimension of DiPaola et al. (2004) OCB in school scale has covered the levels at which OCB are aimed including the organization, the team members and the students. OCB is a useful term to describe voluntary teachers' behaviours that go the 'extra mile' to help students and colleagues to succeed; and that are not performance expectations of their official role (DiPaola et al., 2004).

#### *1.4 Organizational Justice (OJ)*

OJ appeared as an important construct in the Industrial-Organizational psychology in the last decade. OJ is defined as an individual's perception of and reactions to fairness in an organization (Greenberg, 1987). As stated by Cropanzo (1993) OJ is referred to the fair and ethical treatment of individuals within an organization; with many confusing terms and distinctions. In broad terms, OJ refers to perceived fairness of interactions between employees and the organization (Colquitt, 2001). Hence, OJ is conceptualized as a multidimensional construct. The first dimension of OJ is termed distributive justice. Distributive justice is referred by Folger and Greenberg (1985) as the perceived fairness or equity of the manner in which rewards are distributed in organizations.

The second dimension of OJ is known as procedural justice. As stated by Leventhal (1980), procedural justice is defined as the fairness of the processes that leads to outcomes. When individuals feel that they have a voice in the process or that the process involves characteristics such as consistency, accuracy, ethicality, and lack of bias then procedural justice is enhanced. Later, Leventhal and his colleagues (Leventhal, Karuza, & Fry, 1980) redefined the previous definition of procedural justice and referred procedural justice as the fairness of the formal or structural process by which an allocation decision is determined. However, other scholars (Folger & Greenberg, 1985) stated that procedural justice is referred to the perceived fairness or equity of the procedures used in making decisions regarding the distribution of rewards.

The third type of justice is referred as interactional justice. According to Bies and Moag (1986), interactional justice is referred to the fairness of the interpersonal treatment that is received during all allocation decision. Behaving interactionally fair includes showing courtesy and respect, and providing justification for decisions. Interactional justice is also referred to the treatment that an individual receives as decisions are made and can be promoted by providing explanations for decisions and delivering the news with sensitivity and respect.

Although there was a study to examine the relationship between OJ and performance evaluation in the Malaysian context, to the best of researcher knowledge less is known regarding the direct relationship between OJ and individuals OCB particularly among the school teachers. As claimed by several researchers (Johnson, Selenta, & Lord, 2006), employees' perceptions of fairness towards OCB are essential to be investigated since they will ultimately affect the organizational success. A good number of studies have been conducted in Malaysia to examine the effect of OJ on OCB; however it is still under-explored (Hassan & Noor, 2008). Teachers who hold heavy responsibilities should be fairly evaluated by giving the appropriate rewards and advancement. If teachers' performance is not fairly evaluated, then Malaysia may face a demotivated teaching force (Shaari, Yusof, Jamal Khan, Mei, & Teong, 2008). Thus, there is a need to empirically test the impact of OJ particularly on teachers' extrinsic CA as well as teachers' intrinsic CA.

Previous researchers suggest that employees who perceive higher levels of justice will demonstrate more OCB. Thus, the violations of justice have been linked to lower level of OCB. Hence, the perceptions of a fair process may result in improving employees' OCB. In addition, the positive career outcomes may enhance individuals' perception towards the process of fairness. Employees will perceive that they have future career opportunity through the fair promotion process. This is because employees are likely to have positive perceptions towards OJ when they receive such desired career outcomes (e.g. NOP, CS). These may imply the pattern of OJ which may able to influence the decisions towards employees' career outcome such NOP and CS. This study assumes that

teachers should receive career outcomes accordingly to their performance (e.g. OCB). Teachers should be fairly evaluated by the representative of the school. The evaluation should be based on teacher's performance such as OCB. The same approach and information of appraisal process should be applied to all teachers. Teacher who receives the promotion should be seen as a person who can perform well. However, if the evaluation which is made lead to a poor NOP or CS, then the factors of perceived OJ may play some sort of roles in the relationship between performance and career. Given that, OJ would affect the individuals' propensity to engage in OCB and CA. As suggested by Baron and Kenny (1986), a given variable (OJ) may be said to function as a mediator to the extent that it accounts for the relation between the predictor (OCB) and the criterion (CA). Thus, OJ had been tested as a moderator in this study.

Please refer to the proposed conceptualized framework as given in Figure 1.

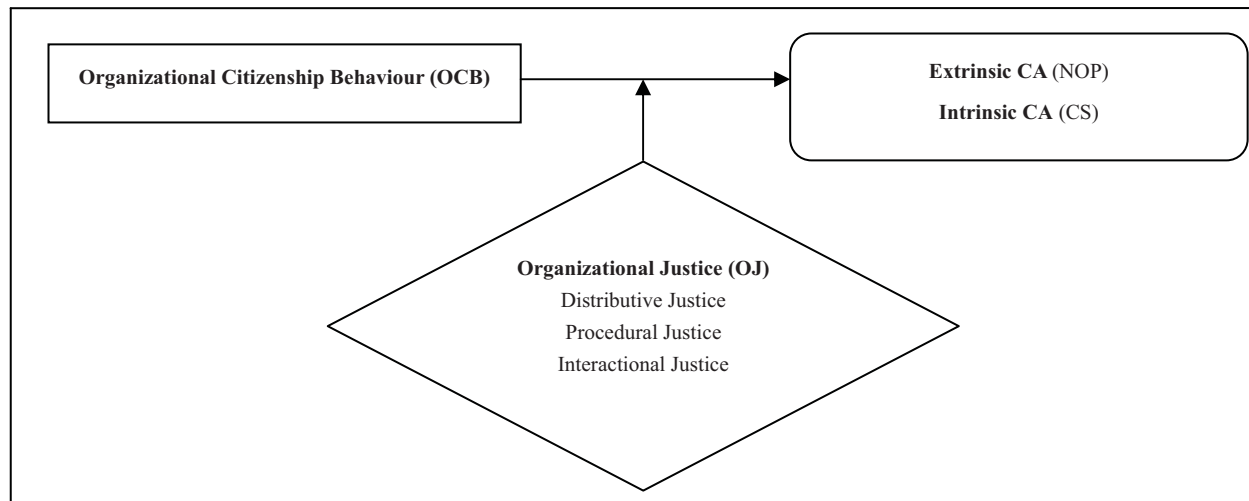


Figure 1. Conceptual framework of the study

## 2. Method

### 2.1 Sample and Data Collection Method

The population of this research includes all teachers from all Primary Schools in one of state located in the northern region of Peninsular Malaysia. The data regarding teachers' NOP, CS, OCB and OJ had been obtained from the perspective of teachers. Focusing on one particular state in doing research among Malaysian teachers is not new in the educational context. The findings of this study may be generalized to the whole country since all teachers in Malaysian need to follow the same procedure towards their promotion. In this study, extrinsic CA is referred to the standard movement of teachers' promotion which has several levels of grade according to the MOE. Hence, it becomes the most practical variable to measure the extrinsic CA of the Malaysian teachers. CS is the most popular measure for the intrinsic component of CA (Hofmans, Dries, & Pepermans, 2008). Hence it may also appropriate to be tested among teachers in this study. The population size of this study is equal to 17,467 teachers. According to Krejcie and Morgan (1970) as cited by Sekaran (2003), a sample size of 375 teachers is acceptable. However, a bigger sample size is needed to overcome the possibility of non-response problem for a mail survey. The researcher distributed 800 set of questionnaires to the respondents. However, the usable number of the returned questionnaires was only 390. Thus, it was greater than the suggestion of Krejcie and Morgan (1970) as cited by Sekaran (2003).

### 2.2 Instrumentation

There are seven (7) questions have been developed to obtain data regarding the demographic background for all respondents. By using nominal scale, three (3) questions concerning teachers' gender, race and qualification has been developed. The next four (4) questions in the demographic section are based on ratio scale. These questions concerning about the respondents' age, the year of the respondents' first appointment as teachers, the year of respondents' first confirmation as teachers, and the total years of respondents' experience as teachers after they get the confirmation. The tests for demographic background were only conducted for a descriptive analysis.

As for the extrinsic CA, the nominal scale has been used. In this study, the criterion of promotion refers to three (3) items. The first promotion item concerns with the data regarding teachers' first grade of appointment. The second promotion item asks respondents to state either they has received the promotion or not. The third promotion item asks respondents to tick the highest grade of their attainment. As for the intrinsic CA, the Greenhaus, Parasuraman and Wormley (1990) scale of CS is fully adopted. Next, the instrumentation of teachers' OCB is adopted from DiPaola et al. (2004) measurements. Meanwhile, instrumentation of teachers' OJ which included four (4) dimensional measures as developed by Colquitt (2001) had been first adopted. However, after researcher conducted the factor analysis test the items emerged into three-factor solution (e.g. distributive, procedural, interactional justice). All Likert Scales range from (1) strongly disagrees to (5) strongly agree for intrinsic CS, OCB and OJ.

Table 1 indicates the measures of the study variables used for the questionnaire in the study.

Table 1. Instrumentation of the study variables

Study Variables	Number of Items	Source of Scale	Type of Scale
Demographics	3		Nominal Scale
	4		Ratio Scale
Extrinsic CA	3		Nominal Scale
Intrinsic CA	5	Greenhaus et al. (1990)	Likert Scale
OCB	12	DiPaola et al. (2004)	Likert Scale
OJ	18	Colquitt (2001)	Likert Scale

### 3. Results

#### 3.1 Descriptive Statistics

The findings show that the distribution of gender is higher for females with a total of 298 female respondents (76.4%). On the other hand, there are 92 male respondents or 23.6 percent out of the total respondents. The age of the respondents show that over half of the respondents (52.05%) are in the range age of '30 to 39 years' old. There are 28.72 percent of the respondents come in the range age of '40 to 49 years' old. Apart from that, 15.13 percent of respondents are in the group of age 'below 30 years' old. The remaining 4.1 percent comes from the category of age which '50 years and above'. Apart from that, only 177 out of 390 respondents (45.4%) stated that they already get the promotion. Meanwhile about 54.6 percent or 213 respondents stated that they did not receive the promotion during their career.

#### 3.2 Means, SD, Minimum and Maximum Value

The results for the related descriptions based on the questionnaires were reported in Table 2. The mean for all variables are relatively high, with the mean all exceeding the scale mid-point of 3. Apart from that, it also shows that teachers have the high level of OCB with the mean score at 4.06. Therefore, it confirmed that all respondents already practiced the high level of voluntary behaviour in the working life even though the work activities were not expected by the management representatives.

The dimension of interactional justice appeared as the highest among the other three dimensions of OJ with the score of mean at 4.01. The other two dimensions of OJ namely; distributive justice and procedural justice reported the score of means at 3.81 and 3.70 each. The minimum of 1.00 for distributive justice and 1.25 for procedural justice indicate that some of the respondents are not comfortable with the level of both perceived OJ factors in the primary school context. This could be due to the failure of the management representative in some aspects of work distribution which is consistent to rewards. Also, this could be due to the failure of the management representative in implementing procedures which is consistent to the allocations of teachers' rewards. However, the minimum of 2.25 for interactional justice shows that some of the primary school teachers were already satisfied with the way management representative interacted with them in term of giving information related to teachers' promotion.

The maximum score of 5.00 for CS, OCB, interactional justice, distributive justice and procedural justice show that some respondents perceived that they are fully committed with the maximum roles for each description of these items. Apart from that, the SD for CS and OCB are at 0.67 and 0.40 each. As for the dimensions of

perceived OJ, the SD's are 0.55 for interactional justice, 0.64 for distributive justice and 0.58 for procedural justice. These results show that most respondents are close to the mean for all these variables.

Table 2. Means, SD, Minimum and Maximum

Variables	N	Means	SD	Min	Max
Career Satisfaction	390	3.56	0.67	2.00	5.00
OCB	390	4.06	0.40	2.92	5.00
Interactional Justice	390	4.01	0.55	2.25	5.00
Distributive Justice	390	3.81	0.64	1.00	5.00
Procedural Justice	390	3.70	0.58	1.25	5.00

### 3.3 Correlations Analyses

The tests for inter-correlation between all variables are presented in Table 3. Both tests of CA dimension which had been measured in the term of extrinsic (e.g. NOP) and intrinsic (e.g. CS) were presented. Correlations between teachers' CS with OCB and all justice factors showed bivariate relationship among all the variables.

Looking at moderator variables, Table 3 supports the notion that all dimensions of perceived OJ are positively correlated with CS. Specifically, interactional justice is significantly more highly correlated with CS ( $r=.33$ ,  $p<.01$ ) followed by distributive justice ( $r=.29$ ,  $p<.01$ ) and procedural justice ( $r=.13$ ,  $p<.05$ ). However, all dimensions of perceived OJ are not correlated with NOP.

Table 3. Inter-correlation between Variables

Variables	1	2	3	4	5	6
Interactional Justice	-(.94)					
Distributive Justice	.28**	-(.95)				
Procedural Justice	.27**	.00	-(.86)			
OCB	.30**	.09	.09	-(.83)		
Number of Promotion	.02	-.02	.05	.17**	-	
Career Satisfaction	.33**	.29**	.13*	.11*	.11*	-(.87)

\*Correlation is significant at the .05 level (2-tailed), \*\*Correlation is significant at the .01 level (2-tailed), \*\*\*Reliabilities are reported in parentheses.

### 3.4 Regression Analyses

Result presented that OCB is not significantly related to NOP ( $\beta=.11$ ,  $t=1.70$ ,  $p=.09$ ) as well as CS ( $\beta=-.03$ ,  $t=-.42$ ,  $p=.68$ ). Although the results presented that there are no significant relationships between interactional justice ( $\beta=.04$ ,  $t=-.79$ ,  $p=.43$ ), distributive justice ( $\beta=-.04$ ,  $t=-.76$ ,  $p=.45$ ) and procedural justice ( $\beta=.04$ ,  $t=.77$ ,  $p=.45$ ) with NOP; however, it shows that there are significant relationships between interactional justice ( $\beta=.21$ ,  $t=4.40$ ,  $p=.00$ ), distributive justice ( $\beta=.28$ ,  $t=6.02$ ,  $p=.00$ ) and procedural justice ( $\beta=.13$ ,  $t=2.76$ ,  $p=.01$ ) with CS. The entry of the two-way interactions show that there is a significant interaction between OCB and distributive justice ( $\beta=.19$ ,  $t=2.62$ ,  $p=.01$ ) to teachers' NOP. Apart from that, there is also a significant interaction between OCB and distributive justice ( $\beta=.11$ ,  $t=1.66$ ,  $p=.01$ ) to teachers' CS according to the entry of two-way interaction report. Based on the split regression, OCB appears as an important determinant of extrinsic CA (NOP) for teachers who perceived high distributive justice ( $\beta=.27$ ,  $t=2.46$ ,  $p=.02$ ) as compared to teachers who perceived low distributive justice ( $\beta=.06$ ,  $t=.80$ ,  $p=.43$ ). Figure 2 revealed the nature of the interaction between OCB and distributive justice in promotion for teachers who perceived high level of distributive justice and low level of distributive justice. The interaction indicated that, an increase in OCB was associated with an increase in teachers' NOP when teachers perceived high level of distributive justice ( $\beta=.27$ ,  $t=2.46$ ,  $p=.02$ ). Among teachers who perceived low distributive justice, OCB seemed to be unrelated to NOP ( $\beta=.06$ ,  $t=.80$ ,  $p=.43$ ). Therefore, the line representing teachers who perceived high distributive justice is more positively sloped than the line

representing teachers who perceived low distributive justice.

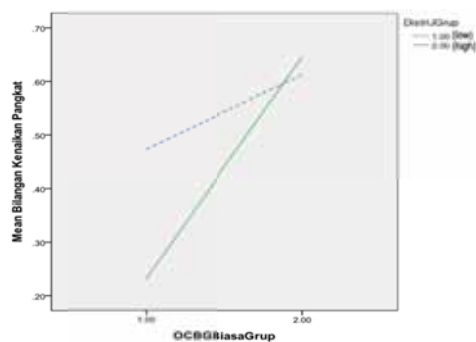


Figure 2. Interaction Plot between OCB and Distributive Justice on Teachers' NOP

Apart from that, based on the split regression, OCB is also an important determinant of intrinsic CA (CS) for teachers who perceived high distributive justice ( $\beta=.27$ ,  $t=2.44$ ,  $p=.02$ ) as compared to teachers who perceived low distributive justice ( $\beta=-.16$ ,  $t=-2.06$ ,  $p=.04$ ). Figure 3 presented the nature of the interaction between OCB and distributive justice in CS, specifically for teachers in the group who perceived high level of distributive justice and low level of distributive justice. The interactions indicated that, an increase in OCB was associated with an increase in teachers' CS when teachers perceived high level of distributive justice ( $\beta=.27$ ,  $t=2.44$ ,  $p=.02$ ). However, among teachers who perceived low distributive justice, OCB seemed to be unrelated to CS ( $\beta=-.16$ ,  $t=-2.06$ ,  $p=.04$ ). Therefore, the line representing teachers who perceived high distributive justice is more positively sloped than the line representing teachers who perceived low distributive justice.

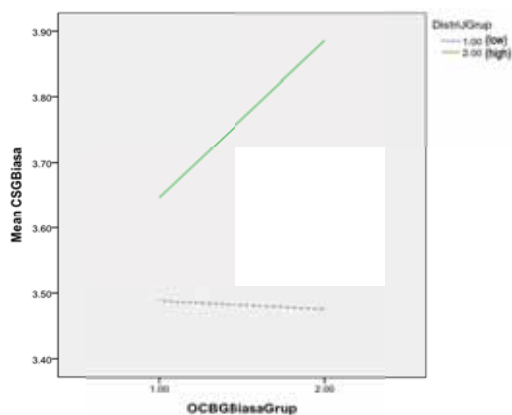


Figure 3. Interaction Plot between OCB and Distributive Justice on Teachers' CS

#### 4. Discussions and Conclusions

There was no significant relationship between teachers' OCB and teachers' extrinsic CA in term of NOP. Similarly, there was also no significant relationship between teachers' OCB and teachers' intrinsic CA in term of CS. Although Bergeron (2004) concludes that OCB may take time to show its benefits towards an individual, the benefits of OCB did not reflect on teachers' rewards in the Malaysian educational context. In this study, half of the respondents (51.02 percent) had less than 10 years of teaching experience. Therefore, they are considered new in servicing the educational institutions. Hence, the benefits for them in practicing OCB; particularly towards the enhancement of the NOP could not be seen in a short period of time. According to the time-based promotion (one of the career paths for teachers under MOE), teachers should at least have 10 years of teaching experience and fulfill several conditions in order to make them entitled to apply for a higher position. Thus, it may present that OCB will be a threat to the Malaysian teachers who are still new in their appointment. This was inconsistent from the findings of Bergeron (2005) who found the relationship between OCB and CA among UK academicians (e.g. Associates Professor, Full Professor rank) who already enjoy the full-time tenured or tenure-track in servicing their university. Therefore, more time is needed for the Malaysian teachers to see the



positive effects of OCB, particularly towards their career outcomes such as promotion. Hence, OCB could be a behaviour that generates frustration to those who are still new in the teaching profession. In addition, OCB in teachers is related to the school's image and a cooperative, collegial school climate (Oplatka, 2009). This may be due to the reason that teachers in Malaysia do not expect that OCB is something that may relate to their personal career expectation particularly towards their NOP or CS levels. Therefore, OCB has been displayed without the expectation to gain any benefits, particularly towards their personal convenience such as NOP or CS. However, OCB has been performed in order to help the school to enhance its performance. Thus, OCB could be a behaviour that generates suffering towards teachers' own benefit at the new stage in the educational sector.

In term of the moderator effect, it was found that all factors of justice are significantly related to teachers' CS but not to teachers' NOP. Therefore, all these justice factors are the set of predictor of teachers' CS in the Malaysian educational context. Therefore, these findings are in line with the findings of Bagdadli, Roberson and Paoletti (2006) who suggest that OJ in the factors of distributive justice and procedural justice are significantly associated with CS. In addition, these findings were also consistent with the findings of Jamali and Nejati (2009) who found that the enhancement of the interactional justice factor can decrease the barriers for CA among academicians in the Iranian society.

Apart from that, this study found that perceived OJ in the school context has such unique interacting effects based on its factor towards both types of teachers' CA. Briefly, this study found that there was significant interaction between OCB and perceived distributive justice to teachers' NOP ( $\beta=.19$ ,  $p=.01$ ). Similarly, this study also found that there was significant interaction between OCB and perceived distributive justice to teachers' CS ( $\beta=.11$ ,  $p=.01$ ). Given that, this study is consistent with the study of Hemdi and Nasurdin (2008) who indicate that distributive justice perception is significantly related to OCB.

This study suggests that MOE should prescribe the activities that involved teachers with voluntary behaviour that may be considered by the managerial side towards the process of teachers' performance evaluation as well as the process of teachers' promotion. In addition, MOE should officially announce the list of performances those are expected from the ministry. Hence, these kinds of performances should be displayed by all primary school teachers who are appointed under MOE. The school representatives should increase the level of distributive justice in the educational context. Specifically, MOE is advised to get the feedback from teachers especially on activities that engage them with the allocation of works that will create the positive impact on their expected CA such as promotion. Therefore, the appearance of distributive justice can be enhanced in the primary school context. Next, MOE is advised to formally inform the school representatives that they are responsible to let all teachers know about the information that relate teachers with the process promotion. For example, Headmasters could conduct a handholding session in order to guide teachers on how to fill in the promotion form. Therefore, the appearance of interactional justice can be enhanced in the primary school context. Finally, MOE should encourage the school representatives to gather inputs from all categories of teachers. Thus, the practice of procedural justice can be improved in the school context.

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## Entrepreneurial Barriers Faced by Disabled in India

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Received: February 4, 2015 Accepted: March 14, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p72

URL: <http://dx.doi.org/10.5539/ass.v11n24p72>

### Abstract

India has witnessed high economic growth rates in the past two decades and there has been a remarkable increase in the per capita income. But unfortunately many sections of the Indian population still remain economically deprived. Disabled persons though constitute a small part of the Indian population but their relative numbers are growing. Disabled lag behind in terms of education and employment which results in poverty. For equitable distribution of wealth and prosperity among all sections of population inclusive growth is necessary. The challenge is therefore not only to achieve higher economic growth rates but also to focus on economic inclusion so that all sections of the society are able to take advantage of opportunities. Promoting entrepreneurship among the disabled is a way to achieve faster and better economic integration. This paper highlights the barriers faced by entrepreneurs with disabilities. Also the paper tries to find out if these barriers are different than those faced by other entrepreneurs. Finally this paper highlights what steps can be taken to prevail over the various types of barriers being faced by disabled entrepreneurs.

**Keywords:** entrepreneurship, disabilities, inclusive growth, barriers, economic integration

### 1. Introduction

As a result of the thrust on economic development the Indian per capita income has increased almost three times from USD 318 in 2002–03 to USD 889 in 2010–11. India stands at third position worldwide in terms of purchasing power parity. But despite the extraordinary increase in rate of economic growth; there is stagnation in key social indicators and millions of the country's underprivileged are still deprived of basic amenities. Majority of Indians (77 percent), live on less than half a dollar a day (World Bank, 2013). Aware of such disparities, the government of India is now giving more consideration towards inclusive growth (in its Eleventh and Twelfth Five Year Plans). The focus is to take the levels of growth to all section of the society.

Disability can be stated as some kind of impairment which results in sustained restriction in daily activities. As per World Health Organisation (2011), disability is growing worldwide due to the rise in ageing population and increase in the incidence of chronic health conditions. In India, during the last decade 2001- 2011 the disabled population has increased from 21.9 million to 26.8 million, which is an increase of 22.4 percent (Census of India, 2011).

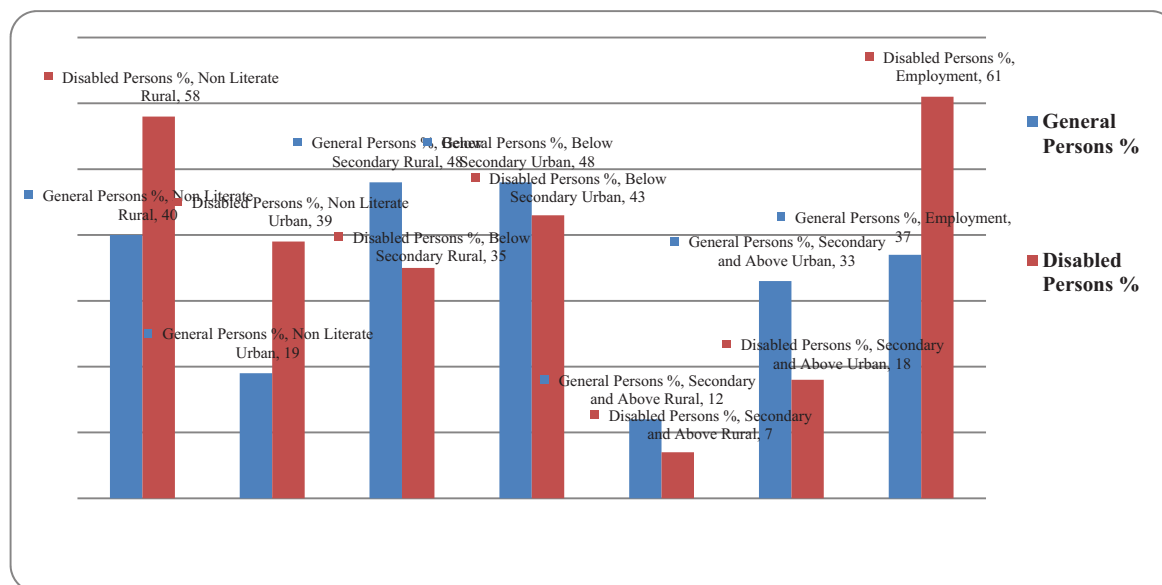
Table 1. Growth of Disabled Population in India 2001- 2011 (By Gender and Region)

Region	Absolute Growth (in millions)			Percentage Growth		
	Persons	Males	Females	Persons	Males	Females
Total	4.90	2.3	2.52	22.4	18.9	27.1
Rural	2.24	0.99	1.24	13.7	10.6	17.8
Urban	2.66	1.38	1.27	48.2	43.3	55.0

Source: Compiled from Census of India, 2011.

Disability is both the cause and the result of poverty. Disabled person lags behind in terms of education and

finding suitable employment which results in poverty. Also the living conditions of poor persons can result in some sort of disability. Disabled persons may be of different types and have diverse abilities and interests but all of them experience one common problem which is their economic exclusion due to disability. The adverse impact of disabilities on education and employment has been highlighted by various researchers (Jones, 2008; Meager & Higgins, 2011) and encouraging entrepreneurship among the disabled to achieve faster and better economic integration has been suggested (Arnold & Seekins, 2002).



Source: Compiled from Census of India, 2011.

Figure 1. Educational and Employment Status of Disabled Persons

## 2. Literature Review

In many parts of the world such as in Europe and America the entrepreneurship rates are higher among disabled people as compared to others (Boylan & Burchardt, 2002; Meager & Higgins, 2011). Researchers have attributed various reasons to the higher rates of Entrepreneurship such it can provide flexibility in terms of working hours and location enabling better adjustment between disabilities and work (Prescott-Clarke, 1990; Callahan et al., 2002; Doyel, 2002; Pagan, 2009; Jones & Latreille, 2011; Meager & Higgins, 2011). Other researchers emphasize factors such as a lack of alternative employment opportunities and employer discrimination for having a higher rate of entrepreneurship among the disabled (Blanck et al., 2000; Boylan & Burchardt, 2002; Hagner & Davis, 2002; EMDA, 2009; Foster, 2010). The stereotype associated with the disabled also negatively influences the perception of employers and thus reduce their opportunities for employment (Davidson, 2011).

### 2.1 Barriers to Entrepreneurship among the Disabled

In addition to the general barriers disabled people also likely to face specific barriers in entrepreneurship. Many of these barriers are deep-rooted social-structural constraints imposing severe limits on the disabled. These barriers can be summarized as:

#### 2.1.1 Market Prejudices

Entrepreneurs experience market prejudices which may be due to their gender, age, religion and caste. In addition to the above prejudices there is also a reduced demand for goods and services produced by disabled persons. This can reduce the rewards to entrepreneurship to the disabled entrepreneur as compared to other entrepreneur (Boylan & Burchardt, 2002; Jones & Latreille, 2011).

#### 2.1.2 Business Contacts

Entrepreneurs rely on their formal and informal contacts for social influence and experience. Disabled persons may have again have more difficulties in establishing and maintain business contacts (Hoang & Antoncic, 2003).

### 2.1.3 Access to Finance

Entrepreneurs often experience difficulties financing new start-ups due to limited personal financial resources (savings, home ownership). Finance is an important for the establishment and growth of entrepreneurial businesses (Berger & Udell, 2006). Disabled entrepreneurs may face more constraints in collecting funds for business due to reasons such as their stereotypes, poor education, lower employment rates, lack of accessible information on sources of grants and discrimination on the part of banks and other financing agencies (Boylan & Burchardt, 2002; Foster, 2010).

### 2.1.4 Experience

As compared to other entrepreneurs, due to the constraints of education and mobility disabled people often lack management, legal and financial expertise for entrepreneurship. This limits their opportunity to start and run successful businesses (Enabled4Enterprise, 2008).

### 2.1.5 Role Models

The career choice and future course of actions of an entrepreneur are influenced by others. If the person is of the same social group then the chances of being influenced increases. The lack of role models for the disabled entrepreneurs also acts as an additional barrier (Kirkwood, 2009).

### 2.1.6 Self – Belief

An entrepreneur's self-belief helps in identifying and developing the business opportunity. Persons with disabilities often experience exclusion and rejection. The accrual of such repeated depressing experiences creates incapacities like the lack of self-belief. Disabled entrepreneurs therefore often lack the self-belief that they can start and operate businesses successfully. Also encouragement from formal as well as informal sources helps in creating self-belief and the courage to bear the stigma associated with business failure. Often lack of such support discourages disabled entrepreneurs (Rizzo, 2002; EMDA, 2009; Foster, 2010).

### 2.1.7 Government Support

Government support is any course of action which aims at improving the conditions of Entrepreneurship. Government support as it relates to entrepreneurship is targeted at encouraging entrepreneurship by making a favorable environment for the entrepreneurs. Favorable environment can in terms of policies related to infrastructure, regulations, legal framework, financing and taxation. The policies should be perceived to be supportive by the entrepreneur (Kitching, 2014).

## 3. Methodology

### 3.1 Sources of Data

The disabled entrepreneurs were selected from the list of beneficiaries of National Handicapped Finance Development Corporation (NHFDC), India. Data for other entrepreneurs was collected from the Indian Industry Association. A sample size of 150 disabled and 150 other entrepreneurs was selected through systematic random sampling. The method of questionnaire development was based on the literature review and interview with experts. The questionnaire was then tested on a select group of disabled and normal entrepreneurs. Based on the feedback of pre testing some modifications was done. For this study a structured, undisguised questionnaire was used. Each entrepreneur was asked to rate on a scale from 1 (unimportant) to 5 (very important) the severity of several specific barriers.

### 3.2 Objectives of the Research

The purpose of this study was to find

- a) What barriers do people with disabilities face when starting a business?
- b) As compared to other entrepreneurs do the disabled entrepreneurs perceive more difficulties in the various barriers to entrepreneurship?

### 3.3 Statistical Test

Multinomial logit regression was used for analyzing the responses from the disabled and other entrepreneurs. In the Multinomial logit regressions, we focus on finding the probability of an entrepreneur facing problem in entrepreneurship due to a particular barrier. The principle of multinomial logistic regression is based on the probability of membership of each category of the dependent variable. So, in our five category example, the focus is on what the probability of having a particular constraint as being unimportant and important for the disabled and other entrepreneurs.

The way multinomial logistic regression compares the probability of a variable being in each of n-1 categories compared to a reference category. In a way we can say that we are fitting n-1 separate binary logistic models, where we compare category 1 to the reference category, then category 2 to the reference category and so on. The formula for multinomial logistic regression is where  $Pr(y_i = j)$  is the probability of belonging to group j,  $x_i$  is a vector of explanatory variables and  $\beta_j$  are the coefficients, which are estimated using maximum likelihood estimation.

$$Pr(y_i = j) = \frac{\exp(x_i\beta_j)}{\sum_j \exp(x_i\beta_j)}$$

Table 2. Results of multinomial regression

Barriers		B	S.E	Sig	Exp (B)
<b>Market prejudices</b>	Intercept	0.847	0.178	0.000	
	Entrepreneur	0.049	0.259	0.850	1.050
<b>Business contacts</b>	Intercept	0.847	0.178	0.000	
	Entrepreneur	0.373	0.271	0.169	1.452
<b>Access to finance</b>	Intercept	0.027	0.163	0.870	
	Entrepreneur	0.654	0.256	0.011*	1.922
<b>Experience</b>	Intercept	0.816	0.177	0.000	
	Entrepreneur	1.363	0.352	0.000**	1.707
<b>Role models</b>	Intercept	0.547	0.169	0.001	
	Entrepreneur	0.396	0.257	0.124	1.486
<b>Self - belief</b>	Intercept	0.134	0.164	0.415	
	Entrepreneur	1.103	0.273	0.000**	2.014
<b>Government Support</b>	Intercept	0.778	0.207	0.000	
	Entrepreneur	0.599	0.299	0.045*	1.821

\* Significant at 0.05 Percent Level

\*\* Significant at 0.01 Percent Level

#### 4. Findings

The findings are shown in table No.2. We find that statistically significant relationship exists for four barriers to entrepreneurship. The barrier where the disabled face more problem as compared to other entrepreneurs are access to finance, experience, self - belief and Government Support.

1. A disabled entrepreneur is 92.2 percent more likely to face barrier due to lack of access to finance as compared to other entrepreneur.
2. A disabled entrepreneur is 70.7 percent more likely to face barrier due to Lack of experience as compared to other entrepreneur.
3. A disabled entrepreneur is 100 percent more likely to face barrier due to Lack of self-belief as compared to other entrepreneur.
4. A disabled entrepreneur is 82.2 percent more likely to face barrier due to Lack of government support as compared to other entrepreneur.

#### 5. Conclusions and Suggestions

This study analyzed the response from disabled entrepreneurs and other entrepreneurs as related to their perceptions of the barriers faced by them in entrepreneurship. It was found that disabled entrepreneurs are more

likely to face barriers in access to finance, experience, self-belief and government support. The following can be done to overcome the barriers faced by disabled entrepreneurs.

### **Financial Support**

Financial support for the disabled can be in form of financial assistance, loans, subsidised loans and tax exemption. Disabled entrepreneurs need to be informed about the various sources of funds. Disabled people operate on a more flexible basis but financial institutions have a structured working pattern in terms of office time and days. Also there can be discrimination due to disability. Thus there is need to provide more, flexible working hours and sensitize the funding agencies towards the needs of disabled entrepreneurs (Bernard et al., 2006; Greve, 2009; Huang et al., 2009).

### **Lack of Experience**

The disabled face difficulty in accessing education and employment and consequently, do not get opportunity to develop the desirable entrepreneurial skills. Supporting the acquisition of entrepreneurship skills can help overcome this lack of experience. The goal of entrepreneurship training for people with a disability is similar to the mainstream population. Training of persons with disabilities on the aspects of business such as identifying business opportunity, writing a business plan, developing a product/service, dealing with customers, financial management and employing staff will increase their chances of success.

### **Lack of Self - Belief**

Awareness training for the disabled can be used to take care of the barriers to entrepreneurship arising from lack of self confidence among disabled entrepreneurs. Entrepreneurship awareness measure refers to the programmes endeavouring to increase knowledge of entrepreneurship as a career option for the disabled. The institutions related to regulating, government departments, banks and other institutions with which the disabled entrepreneur interacts should be responsive. This will result in bridging the gaps with the disabled entrepreneurs. Also a focused confidence building aimed at start ups can address the barrier of lack of confidence faced by disabled entrepreneurs.

### **Government Support**

The Indian government acknowledges that disabled entrepreneurs need to be encouraged and assisted in entrepreneurship. In the year 1997, under the Ministry of Social Justice and Empowerment the National Handicapped Finance and Development Corporation (NHDC) was set up to promote economic and development activities undertaken by Persons with Disabilities. The Corporation assists the disabled entrepreneurs by providing loans for entrepreneurship and other economic ventures.

Most of the government schemes and policies are generalised to support all types of disabled entrepreneurs. There is a need to understand that generalisation cannot work as there are differences in disabilities such as the type, severity, time period and time of onset of disability. Earlier studies on entrepreneurship for the disabled suggest that concentrated, customized, one-to-one, or small group assistance, may produce the most successful outcomes rather than the generalised government policy support (Arnold & Ipsen, 2005; Enabled4Enterprise 2009; EMDA, 2009; Dotson et al., 2013). Also government can play a significant role in supporting the development and use assistive technology to ensure continual improvement of entrepreneurs with disabilities. Assistive technology are becoming more sophisticated, increasingly portable, less expensive and easier to use, and as result, hold greater potential for improving the inclusion of people with disabilities in economic activities such as entrepreneurship (Angelocci et al., 2008).

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# Relationships between Polarization and Openness in Korean Economy

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Received: April 4, 2015 Accepted: June 29, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p79

URL: <http://dx.doi.org/10.5539/ass.v11n24p79>

## Abstract

International trade usually changes the production patterns of an economy. The share of exporting industries tends to increase and that of importing industries tends to decrease. In the process of industrial restructuring, it is natural for the economy to experience a concentration toward exporting industries. At the same time, this concentration might also occur within separate industries; exporting firms tend to grow and the share of other firms tends to decrease. All these changes can result in a polarization of the economy. This paper investigates if this polarization trend occurred in the Korean economy by using industry and firm level data. In particular, we explore the question of whether there is any relationship between polarization and international trade, as there has been a lot of criticism focused on the idea that international trade has resulted in income inequality and polarization of the Korean economy. We calculated the GINI coefficient and other indices to measure the degree of polarization, and we performed regression analysis on the time series and panel data. This paper finds that there is a positive relationship between export ratio and polarization.

**Keyword:** Korea, polarization, international trade, GINI

## 1. Introduction

It seems undeniable that the rapid growth of the Korean economy during the past 50 years was only possible because of the expansion of international trade, and exports were particularly important in this expansion. According to growth accounting, the economic growth is due to two factors: input growth and productivity growth. Trade with other countries was critical for both, and the Korean economy owes its success to international trade. But international trade has other economic side effects that are not as desirable. First, consider the income distribution problem. In particular, polarization in various areas can emerge in the context of international trade expansion. International trade gives rise to significant gains in the exporting industry, which can result in benefits for holders of capital resources, exporting companies and workers associated with these fields. The Heckscher Ohlin theory of international trade can give us some important ideas about who benefits and who loses in this situation. If the wealthy classes enjoy gains from international trade, undesirable income distribution effects will result. Second, the positive effects from exports have, of late, been decreasing in the Korean economy. It is unknown at present whether there is significant spillover from exports to other areas; for example, in 1990, exports of 1 billion KRW lead to the employment of 58.6 workers in 1990, but this had dropped to 12.6 workers by 2005, and further to 7.7 workers by 2012. (Institute for International Trade, 2014)

This paper investigates the relationship between international trade and polarization. We will look at the relationship between international trade and industry using industry data from whole industries and individual firms. In particular, we calculate GINI-similar coefficients and other measures to obtain the polarization indices, and we perform regression analysis on the time series and panel data of these indices. This paper finds that there is a positive relationship between export and polarization.

There are several ways to define polarization; we consider it to be the gap in peoples' incomes, the gap between exporting industries and other industries, and the gap among firms in a particular industry. These gaps can be widened by international trade. First, the Heckscher-Ohlin theory of international trade states that, in the long run, free trade benefits the factors of production that are abundant and hurts factors of production that are scarce. Second, a gap between exporting industries and importing industries may exist in the short run. Third, within an industry, exporting companies will become larger while the other companies will become smaller. Fourth, if the exporting companies are large firms, the gap between large firms and small and medium sized firms will be

larger. As a result, international trade will result in the polarization of the economy.

Even in many advanced countries, it has been reported that increased trade has negative income distribution effects. This paper uses trade data at the industry and firm levels, and investigates the effects of international trade on the polarization of the economy. This research is expected to determine whether the expansion of international trade in Korea widened the gap in the economy, and to identify the factors affecting polarization.

## 2. Literature

When we consider the relationship between economic growth and income inequality in developing countries, the effects of economy globalization should be investigated. Many empirical studies including Feenstra and Hanson (1997) have addressed this topic. Most of them have pointed to the increases in income differences caused by economic globalization (Sato & Fukushige, 2007). An important study comes from Feenstra and Hanson (1997); they investigated the effects of Foreign Direct Investment (FDI) on the skilled labor share of wages in Mexico from 1975-1988. FDI was found to increase the demand for, and the wages of, skilled labor, and this effect was particularly large in FDI concentrated regions. Another example relates to U.S. industry. Borjas and Ramsey (1995) argued that employment changes in trade concentrated industries can explain the inequality in the U.S. Hanson and Harrison (1999) analyzed the relationship between trade reform and rising wage inequality, focusing on the 1985 Mexican trade reform. Wage inequality in Mexico rose after the reform, which is puzzling in a Heckscher–Ohlin context if we assume that Mexico has a comparative advantage in producing low skill-intensive goods.

More recently, Lim and McNelis (2014) examined the relationship between the Gini coefficient, trade-openness, aid, and FDI flows. Panel data estimates are provided for the overall data set (42 low to middle income countries). It finds empirically that trade openness is more able to change income inequality than either FDI or foreign aid, but that its effectiveness depends on the stage of development. The countries with high labor intensity in production and greater openness generate lower inequality in response to favorable shocks to export demand and trade.

Many papers have attempted to address this question by using data for the Korean economy, but the results are not consistent. For example, even within a single paper we find mixed results. Mah (2002, 2003) studied the impact of changes in trade values and FDI inflows on the Gini coefficients for Korea. Mah (2002) found that Gini coefficients tend to increase with trade liberalization measures and FDI inflows, and concluded that the progress of globalization caused income inequality to deteriorate in Korea, which supports the Feenstra-Hanson (1997) hypothesis. On the other hand, Mah's regression results indicated that neither changes in the openness ratios, regardless of the measures, nor those in the FDI inflows were significant in influencing the Gini coefficients. Sato and Fukushige (2009) analyzed the determinants of the Gini coefficient for income and expenditure for the Korean economy. Their results suggest that the effect of economic globalization has two routes, and two different speeds, in affecting income inequality. Recently, Kang (2014) examined the relationship between globalization and income distribution in Korea (Note 1).

The study investigates the effects of trade openness, inward and outward FDI flows, and per capita GDP on income distribution from 1992 to 2011. It found that, as trade openness and per capita GDP increased, income inequality was reduced. Meanwhile, income equality deteriorates as inward and outward FDI flows increase. The negative effect of inward FDI flows on income inequality is greater than that of outward FDI flows.

This paper differs from those mentioned above in the sense that we do not focus on the relationship between international trade and income inequality, but on the relationship between polarization and international trade. Here, we use concentration as a proxy for polarization; namely, the concentration of industries and the concentration of firms. Thus, we will use concentration indices like HH (Hirschman-Herfindahl) and Gini coefficients. The Gini coefficients used in this paper are not used to indicate income distribution. We report how much concentration occurs among industries and firms, and we explore the effects of international trade on this concentration or polarization. This research, therefore, uses production data instead of wage data or per capita income data, making it relatively unique.

## 3. Changes in Industry Structure

The industry structure of the Korean economy has changed from primary industries such as agriculture and fisheries, to secondary industries such as automobiles and semi-conductors over the past few decades. By using OECD STAN data (rev.3) we obtained the following results (Note 2).

### 3.1 Changes in Industry Structure

Table 1. Industry shares

	1970	1975	1980	1985	1990	1995	2000	2005	2009
Agriculture and fishery*	0.291	0.269	0.160	0.133	0.087	0.062	0.046	0.033	0.026
Mining and Manufacturing**	0.215	0.248	0.280	0.311	0.298	0.297	0.315	0.304	0.301
Service***	0.494	0.483	0.560	0.557	0.615	0.642	0.639	0.663	0.673

\* ISIC(International Standard Industry Classification) C01-C05

\*\* ISIC C10-C37      \*\*\* ISIC C40-C99

These numbers are shown in Table 1. In Korea, primary industry (agriculture and fishery) has been reduced to less than 3%, from 30% during the last four decades, while secondary industry (mining and manufacturing) grew from 20% to 30%. The service sector is almost 70%, and has increased from 50% in 1970.

### 3.2 Industry Structure Change in Manufacturing

Even within manufacturing, the Korean economy has experienced dynamic changes in industry structure (Table 2).

Table 2. Changes in industry structure inside manufacturing

	1970	1975	1980	1985	1990	1995	2000	2005	2009
Food products, beverages and tobacco	0.196	0.131	0.108	0.091	0.073	0.064	0.062	0.052	0.051
Textiles, textile products, leather and footwear	0.280	0.264	0.233	0.186	0.133	0.087	0.082	0.051	0.041
Wood and products of wood and cork	0.030	0.020	0.008	0.008	0.008	0.008	0.006	0.005	0.004
Pulp, paper, paper products, printing and publishing	0.059	0.054	0.038	0.052	0.053	0.062	0.048	0.041	0.041
Chemical, rubber, plastics and fuel products	0.142	0.170	0.199	0.167	0.144	0.162	0.151	0.170	0.155
Other non-metallic mineral products	0.063	0.063	0.065	0.063	0.066	0.051	0.041	0.035	0.038
Basic metals and fabricated metal products	0.027	0.051	0.102	0.129	0.138	0.138	0.126	0.165	0.142
Machinery and equipment	0.081	0.132	0.166	0.179	0.235	0.275	0.337	0.330	0.338
Transport equipment	0.085	0.085	0.052	0.092	0.117	0.127	0.123	0.135	0.175
Manufacturing n.e.c. and recycling	0.037	0.031	0.029	0.033	0.032	0.025	0.023	0.016	0.014

\* Manufacturing is from ISIC C15-37.

From the table, we see a reduction in food products, beverages and tobacco, textiles, textile products, leather and footwear, wood and products of wood, and cork, while basic metals and fabricated metal products, machinery and equipment, and transport equipment have been steadily increasing.

### 3.3 Industry Change in Terms of Technology Level

It is generally acknowledged that the Korean economy has moved toward capital and technology intensive industries. In particular, we can observe that, as the Korean Economy has grown, it has moved toward high tech industries, from low tech industries. According to the classification by OECD, we can confirm the trend change. Table 3 shows those findings.

Table 3. Changes toward high technology industries

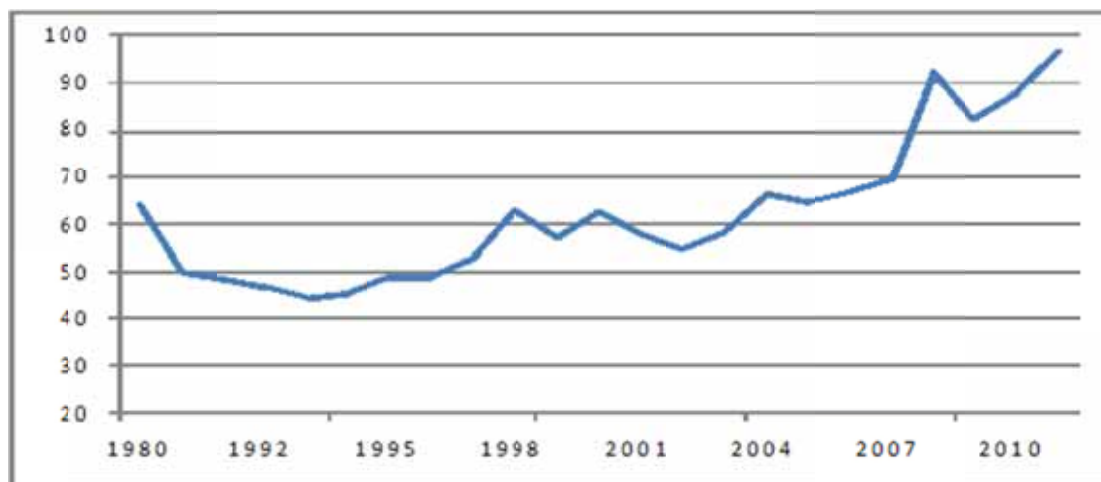
	1985	1990	1995	2000	2005	2009
HI	0.120	0.157	0.191	0.234	0.227	-
MH	0.208	0.268	0.284	0.273	0.287	-
ML	0.302	0.275	0.279	0.271	0.321	0.295
LO	0.370	0.301	0.247	0.222	0.165	0.142
H&MH	0.328	0.424	0.475	0.507	0.514	0.562

\* H, M, LO stand for High, Middle, Low technology, respectively. In the case of 2009, OECD did not provide for the HI and MH separately.

In the table, HI, MH, ML, LO stand for high, mid high, mid low, and low, respectively. The Korean economy has been rapidly transformed from low and mid-low technology industries, to mid-high and high technology industries (Note 3).

### 3.4 The Ratio of International Trade to GDP

As is well known, the Korean economy depends heavily on international trade. The degree of dependence of the Korean economy on foreign trade has been increasing since the opening of the economy in the 1970s and, during this time, the growth strategy of the Korean economy was export-oriented. The ratio of international trade to GDP, which is sometimes referred to as openness, has recently been around 100%. Figure 1 shows the trend of this ratio.



Source: KOSIS and Bank of Korea

Figure 1. Ratio of trade to GDP

This ratio rose rapidly in the 1970s (not shown in the figure) (Jang, 1999). After a period of slow change and decrease in the 1980s, the ratio began increasing again, and has continued ever since. Of interest is the fact that the trend of these ratios looks similar to the degree of concentration in the manufacturing industry. We anticipate finding similar patterns as we continue our research and calculations.

## 4. Polarization of Production and International Trade

International trade in the Korean economy has been increasing rapidly since the 1970s and the total amount of international trade has recently exceeded one trillion dollars. On the one hand, it would not be an exaggeration to say that international trade has made the economy grow and that the Korean people enjoy today's income level. On the other hand, it would be fair to say that international trade may have caused some amount of polarization within the economy.

During the decades of economic development, Korea experienced drastic changes in industry structure. The percentage share of manufacturing increased significantly. In addition, there were big changes, even within the manufacturing industry. All these changes seem to be related to international trade. Naturally, exporting industries have grown and importing industries have shrunk. These changes might result in the polarization of industries. In this section, we report on the degree of polarization by using manufacturing industry data.

### 4.1 Measures

We are going to use the degree of concentration as the proxy for the polarization index. In particular, we borrow some measures from other areas of economics, such as CR3 (concentration ratio 3), CR5, H-H (Hirschman-Herfindahl) index, and GINI (Gini's coefficients). For example, if we consider the polarization in an industry with  $n$  firms, CR3 and CR5 are the share of the top three or five firms, and H-H is the sum of squares of each of the firms in the industry;  $HH = \sum s_i^2$ , where  $s_i$  indicates the share of  $i$ -th firm. Gini was originally proposed to be a measure of income inequality, and is the most commonly used measure of inequality. A Gini coefficient of zero expresses perfect equality, that is, all values are the same. For the calculation, the following formula is used (Jasso, 1979):

$$G = \frac{1}{2\mu n^2} \sum_{i=1}^n \sum_{j=1}^n |y_i - y_j|$$

Where  $y_{i(j)}$  indicates the sales of a firm  $i(j)$  and  $\mu$  is the average of the sales, and  $n$  is the number of firms. Usually, GINI is calculated based on  $i$ -th percentile of the population, but in this paper the number of firms does not equal one hundred; therefore, we use a GINI-similar (GINI-s) instead of GINI itself (Note 4). Therefore, the absolute size of GINI-s could be quite different from the usual GINI, and we should note that only the trend or the 'change' itself is meaningful. If we want to obtain the degree of concentration toward a few industries in the whole economy,  $i(j)$  can indicate an industry. By the same token, the degree of concentration of an industry can indicate how the industry is concentrated toward some firms if we use  $i(j)$  for the firms in the industry.

#### 4.2 Industry Production

First, we report CR3, CR5, H-H, GINI-s for 26 manufacturing industries in the Korean economy in Figure 2.

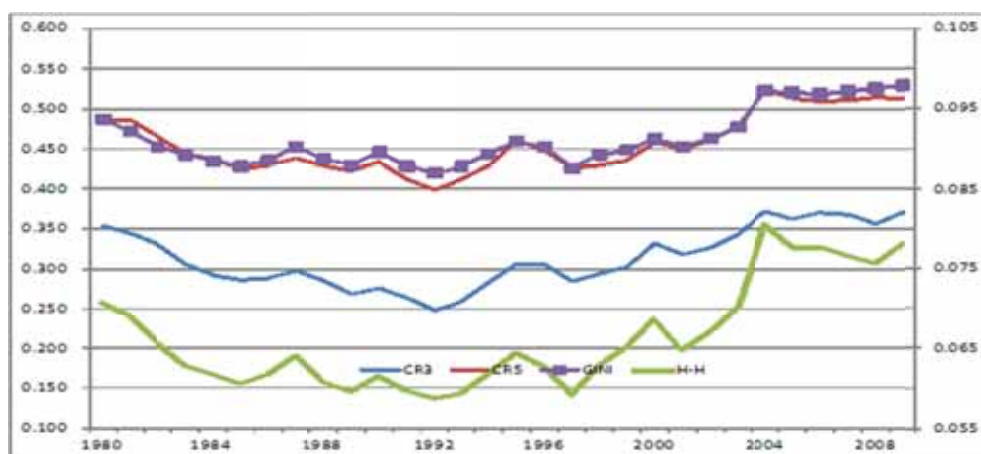


Figure 2. Trend of polarization of 26 industries

\* Right hand side axis shows HH while CR3, CR5, GINI-s are expressed by left hand side axis.

All the indices have very similar shapes; four indices had a decreasing trend in the early 1990s and then increasing trends after the mid-90s. It seems that the manufacturing sector was dispersed in the 1990s, but began to focus on some specific sectors in the 2000s, meaning that polarization mainly occurred in the mid and late 2000s. It is a relief to see that this increasing tendency has not continued in more recent years.

#### 4.3 International Trade

The structure of international trade has changed greatly in Korea, and the change occurred along with the polarization of the economy; most exports and imports centered on a few items. We report the calculated results from the concentration indices in order to see the polarization trends. In the year 2009, the five largest exporting industries were ship building, semi-conductors, mobile phones, display panels, and motor vehicles, and these five items account for 43.5% of total exports. This shows that Korea's export economy is concentrated on only a few industries. By the seventies, light industries such as textiles and shoes were major exporting items, but high-tech and capital intensive items have been the main exports since the 1980s.

In the 2000s, another important phenomenon was that exports changed from being mostly final goods, to being mostly intermediate goods. The share of parts, components, and half-finished goods being exported has been growing a lot recently due to the increase in the production of final goods overseas. Nowadays, intermediate goods are produced in foreign countries with final goods as manufacturing factories moved abroad. Due to this trend, the export market of Korean products is transferring from advanced countries to developing countries where manufacturing factories are located. As this has been happening, Korean exports have been concentrating on a few items like shipbuilding, IT (semi-conductor, flat display panel, mobile phones), and cars. In particular, exports of display panels have risen sharply since the mid-2000s when the export of the LCD panel for TVs began.

For an understanding of the background to this we report the degree of concentration of export items by using UN Comtrade data. From SITC 3 digit data with 'rev.2', we used 255 sub industries and calculated the

concentrations. About 230 out of 255 industries have reported exports. The GINI-s in figure 3 show that the concentration of the Korean export economy has been increasing since the mid-1990s.

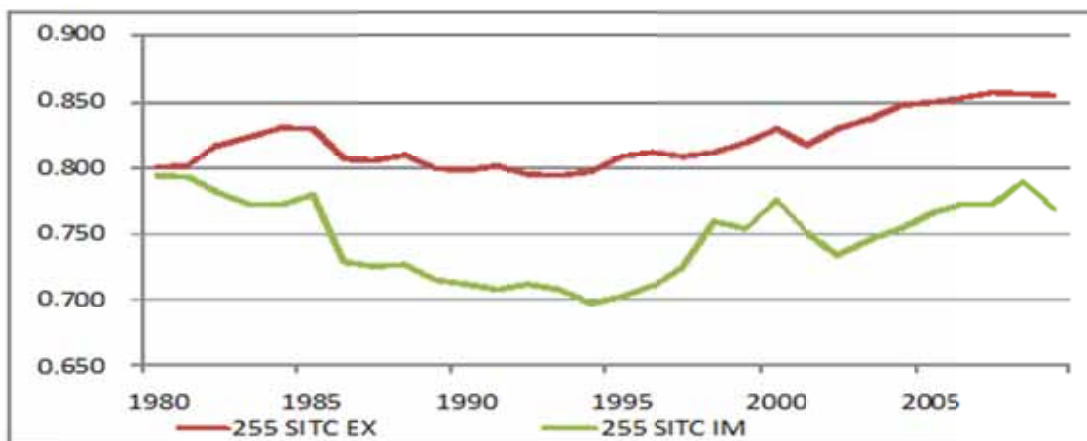


Figure 3. Concentration of trade in the Korean economy: Data from 255 sub industries

In Figure 3, two lines are shown. If the GINI-s is a large number, it means that the exports and imports are centered on only a few items (Note 5). Basically, it seems that Korean economy exports are more concentrated than Korean economy imports, but both lines have been increasing in recent years.

Interestingly, we find a similar U-shape for both industrial products and international trade. It seems that the production concentration is positively correlated with international trade concentration. In addition, these U-shapes look to be related to the degree of dependence on foreign trade, shown in Figure 2.

#### 4.4 Trade Partners

What about Korea’s trading partners? Was the concentration tendency related to exporting or importing countries? We report two indices that indicate the degree of concentration of trading partners. All the data are from Comtrade Data of UN.

One distinct characteristic is that Korea’s exports and imports have been concentrating on a few countries, and five countries account for more than 50%. In past years, Korea has exported the most to the US and then to Japan. In the 2000s, however, Korea exported the most goods to China, with the US and Japan ranking second and third, respectively. As for importing partners, in the 2000s Korea imported the largest amount from Japan, with the US in second place, but now China is the number one source of imports into Korea.

Figure 4 shows CR5 (concentration ratio 5) and CR10, which indicate the share of the top five or ten trading partners. Even though those numbers are still relatively large, we see a decreasing tendency in concentration, which means that Korea’s efforts to diversify trading partners have been successful. Such a tendency can also be found from the H-H index in the figure.

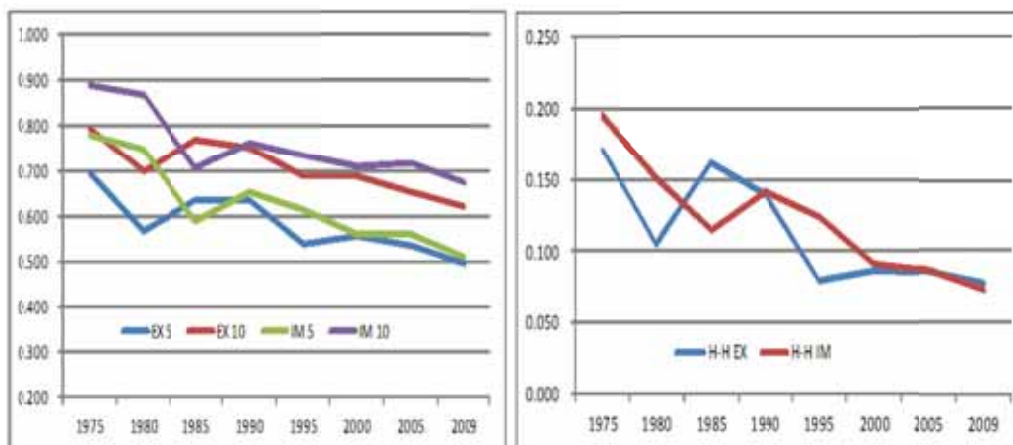


Figure 4. CR5, CR10, and H-H’s of trade partners



### 5. A Regression of Trade and Production: Firm Level Data

In this section, we analyze the polarization of production and international trade by using firm level manufacturing data from 1985-2013. We use the Kisvalue data provided by Korea Investors Service Inc. The Kisvalue database contains data from almost 20,000 firms, of which 10,756 firms operate in 23 manufacturing industries. We selected 2,018 firms from this number that were consecutively included in the dataset for 29 years. We summed the firm level data to get production and trade data at the industry level. Thus, the data are different from the results above, which were obtained from industry level, UN Comtrade and STAN data.

Two types of GINI-s were calculated from the data. One is GINI-s for a particular industry in a specific year using data from an individual firm. From this we obtained 23\*29 panel data (Appendix Table 2). The other is 29 time series GINI-s using the industry data, which was calculated from firm level data. This GINI-s might show the degree of concentration among the industries for a particular year. Figure 5 shows the second GINI-s (The numbers are shown in the last column of Appendix Table 2). These figures, calculated from the firm level data, seem to be similar to Figures 2 and 3, which were calculated using industry level data. Since the data source is not the same as before, these figures do not necessarily have to be exactly the same as the previous ones, but the basic trends look similar in recent years: concentration and polarization are increasing in Korean manufacturing.

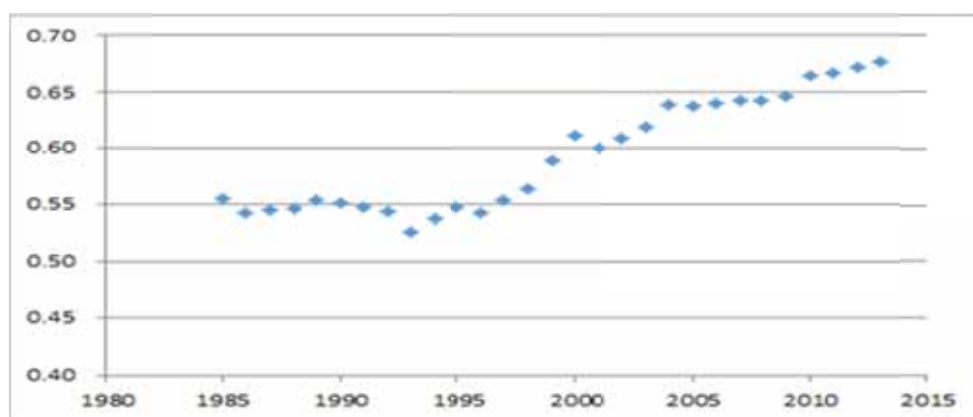


Figure 5. Increasing trend of GINI-s by using firm level data

Now we report the results from regression analyses to see the relationship between the GINI-s and the trade dependence ratio.

First, Table 4 indicates the results for the time series data of the manufacturing industry as a whole. The number of data, 29, indicates 29 years. We used a robust standard errors estimation by using the sandwich estimator of variance. The dependent variable is GINI-s, and the independent variable is the ratio of exports to total production in each year. We summed up the total amount of exports and production of the firms in the data set. The regression results show that the export ratio is significant at the 10% significance level when we use the usual standard errors, and significant at 1% when we use the robust errors. In all, it seems reasonable to conclude that the export ratio has a positive relationship with GINI-s.

Table 4. Exports and Polarization in time series data

	Coef.	Std. Err.	t-value	Robust Std. Err.	t
Export Ratio	0.162	0.093	1.80	0.060	2.72
constant	0.563	0.019	29.13	0.015	37.11
R <sup>2</sup>	0.1070				
n	29				

Second, we report the regression result by using the panel data: GINI-s in each industry for every year. Several panel data regression models are used: fixed effect model, random effect model, two-way effects model, and two-way GLS model. The two way GLS model was used in order to consider the heterogeneity of the error terms in the panel data. Here, we also find a positive relationship between the export ratio and polarization. When the export ratio is large in an industry, the GINI-s also tends to be large.

Table 5. Exports and Polarization in panel data (Note 6)

	Fixed Effect	Random Effect	Two-Way Effect	Two-Way GLS
export rate	0.023 (1.57)	0.025* (1.68)	0.048*** (3.25)	0.029*** (2.98)
constant	0.627*** (239.84)	0.626*** (21.9)	0.567*** (66.3)	0.598*** (100.3)
R <sup>2</sup>	0.2075	0.2075	0.2075	
n	667	667	667	667

\* p<.1; \*\* p<.05; \*\*\* p<.01, the numbers in parenthesis are t-values.

## 6. Conclusion

International trade usually changes the production patterns of an economy; the share of exporting industries tends to increase while the share of importing industries tends to decrease. Thus, it is natural for an economy to experience concentration in export-centric industries. This concentration might also occur within individual industries; the exporting firms tend to grow, and the share of other firms tends to decrease. All these changes can result in polarization of the economy. This paper investigates if a polarization trend exists in the Korean economy by using industry level and firm level data.

In addition, we explore the relationship between polarization and international trade. Since much criticism has been focused on the idea that international trade has resulted in polarization and income inequality in the Korean economy, this paper tries to determine the effects of international trade on polarization. We borrowed an index that is similar to the GINI coefficient and other indices to measure the degree of polarization, and performed regression analysis with this index, and the export ratio. Time series and panel data were used. We find that there is a positive relationship between export ratio and polarization, which indicates that international trade or openness may lead to polarization in the Korean economy.

## Acknowledgments

This work was supported by the National Research Foundation of Korea Grant funded by the Korean Government (NRF-2013S1A5A2A01018135)

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## Appendix

Table 1. Industry classification in Korea

KSIC2	Manufacturing	OECD classification by tech level
C10	Manufacture of Food Products	L
C11	Manufacture of Beverages	L
C12	Manufacture of Tobacco Products	L
C13	Manufacture of Textiles, Except Apparel	L
C14	Manufacture of wearing apparel, Clothing Accessories and Fur Articles	L
C15	Tanning and Dressing of Leather , Manufacture of Luggage and Footwear	L
C16	Manufacture of Wood Products of Wood and Cork; Except Furniture	L
C17	Manufacture of Pulp, Paper and Paper Products	L
C18	Printing and Reproduction of Recorded Media	L
C19	Manufacture of Coke, hard-coal and lignite fuel briquettes and Refined Petroleum Products	ML
C20	Manufacture of chemicals and chemical products except pharmaceuticals, medicinal chemicals	MH
C21	Manufacture of Pharmaceuticals, Medicinal Chemicals and Botanical Products	H
C22	Manufacture of Rubber and Plastic Products	ML
C23	Manufacture of Other Non-metallic Mineral Products	ML
C24	Manufacture of Basic Metal Products	ML
C25	Manufacture of Fabricated Metal Products, Except Machinery and Furniture	ML
C26	Manufacture of Electronic Components, Computer, Radio, Television and Communication Equipment & Apparatuses	H

C27	Manufacture of Medical, Precision and Optical Instruments, Watches and Clocks	H
C28	Manufacture of electrical equipment	MH
C29	Manufacture of Other Machinery and Equipment	MH
C30	Manufacture of Motor Vehicles, Trailers and Semitrailers	MH
C31	Manufacture of Other Transport Equipment	MH
C32	Manufacture of Furniture	L
C33	Other manufacturing	L

Table 2. GINI-s by industries and by years

KSIC	C10	C11	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22
1985	0.55	0.52	0.64	0.47	0.26	0.12	0.53	0.30	0.80	0.68	0.58	0.47
1986	0.56	0.54	0.65	0.50	0.37	0.33	0.53	0.32	0.82	0.68	0.59	0.55
1987	0.59	0.59	0.67	0.51	0.35	0.40	0.55	0.31	0.82	0.69	0.60	0.50
1988	0.59	0.57	0.68	0.49	0.41	0.49	0.57	0.23	0.81	0.71	0.58	0.53
1989	0.60	0.59	0.67	0.50	0.45	0.48	0.58	0.24	0.79	0.71	0.56	0.52
1990	0.62	0.61	0.65	0.52	0.45	0.39	0.58	0.28	0.80	0.71	0.59	0.51
1991	0.64	0.62	0.65	0.54	0.46	0.53	0.59	0.30	0.81	0.71	0.58	0.53
1992	0.64	0.63	0.65	0.54	0.47	0.52	0.61	0.35	0.81	0.71	0.57	0.54
1993	0.64	0.63	0.63	0.54	0.50	0.44	0.61	0.30	0.80	0.68	0.56	0.54
1994	0.64	0.66	0.64	0.59	0.49	0.49	0.63	0.31	0.81	0.71	0.56	0.52
1995	0.65	0.67	0.63	0.60	0.51	0.46	0.65	0.31	0.81	0.73	0.55	0.51
1996	0.64	0.64	0.62	0.60	0.52	0.47	0.66	0.32	0.80	0.73	0.54	0.51
1997	0.64	0.64	0.60	0.62	0.49	0.50	0.66	0.34	0.83	0.73	0.55	0.53
1998	0.66	0.61	0.60	0.55	0.46	0.52	0.65	0.36	0.83	0.74	0.56	0.56
1999	0.66	0.61	0.59	0.52	0.50	0.53	0.62	0.36	0.82	0.75	0.54	0.54
2000	0.66	0.67	0.57	0.52	0.48	0.51	0.64	0.34	0.81	0.76	0.54	0.54
2001	0.65	0.67	0.57	0.52	0.49	0.52	0.64	0.35	0.81	0.76	0.54	0.53
2002	0.66	0.67	0.55	0.52	0.47	0.52	0.65	0.34	0.82	0.75	0.54	0.52
2003	0.67	0.68	0.57	0.51	0.49	0.51	0.64	0.32	0.83	0.75	0.54	0.49
2004	0.66	0.63	0.56	0.51	0.49	0.53	0.64	0.32	0.83	0.77	0.55	0.50
2005	0.66	0.65	0.58	0.51	0.48	0.52	0.64	0.29	0.83	0.77	0.55	0.54
2006	0.67	0.64	0.58	0.53	0.47	0.50	0.63	0.32	0.83	0.77	0.55	0.55
2007	0.67	0.63	0.59	0.53	0.47	0.47	0.63	0.34	0.83	0.78	0.56	0.55
2008	0.65	0.62	0.59	0.55	0.47	0.51	0.64	0.35	0.83	0.79	0.56	0.56
2009	0.65	0.63	0.60	0.55	0.47	0.51	0.65	0.39	0.83	0.79	0.56	0.58
2010	0.65	0.64	0.63	0.55	0.50	0.50	0.63	0.38	0.83	0.80	0.55	0.57
2011	0.65	0.68	0.60	0.55	0.52	0.51	0.62	0.41	0.83	0.80	0.55	0.58
2012	0.65	0.72	0.61	0.56	0.53	0.53	0.63	0.43	0.83	0.80	0.53	0.59
2013	0.65	0.72	0.61	0.57	0.56	0.48	0.63	0.41	0.83	0.80	0.54	0.59
KSIC	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	Total
1985	0.70	0.80	0.51	0.81	0.50	0.64	0.70	0.83	0.73	0.54	0.55	0.55
1986	0.70	0.79	0.50	0.80	0.52	0.67	0.71	0.86	0.74	0.49	0.55	0.54
1987	0.71	0.80	0.47	0.79	0.51	0.67	0.71	0.85	0.73	0.50	0.55	0.55
1988	0.70	0.81	0.46	0.80	0.51	0.68	0.69	0.86	0.73	0.59	0.61	0.55
1989	0.70	0.82	0.46	0.83	0.54	0.68	0.67	0.85	0.76	0.51	0.61	0.55
1990	0.70	0.81	0.46	0.83	0.54	0.69	0.69	0.85	0.79	0.47	0.66	0.55
1991	0.72	0.82	0.49	0.84	0.55	0.69	0.71	0.85	0.80	0.44	0.65	0.55
1992	0.72	0.82	0.48	0.85	0.53	0.71	0.75	0.85	0.83	0.48	0.64	0.54
1993	0.71	0.83	0.48	0.86	0.49	0.71	0.76	0.85	0.83	0.47	0.62	0.53
1994	0.71	0.82	0.49	0.88	0.51	0.71	0.75	0.86	0.85	0.48	0.61	0.54
1995	0.72	0.80	0.47	0.89	0.51	0.73	0.74	0.85	0.86	0.44	0.63	0.55
1996	0.72	0.80	0.44	0.88	0.53	0.74	0.74	0.85	0.85	0.42	0.59	0.54
1997	0.72	0.80	0.43	0.87	0.55	0.75	0.75	0.84	0.86	0.44	0.56	0.55
1998	0.72	0.82	0.47	0.87	0.55	0.77	0.78	0.84	0.87	0.44	0.52	0.56

1999	0.72	0.80	0.44	0.88	0.56	0.75	0.75	0.84	0.86	0.41	0.49	0.59
2000	0.74	0.80	0.44	0.89	0.56	0.73	0.74	0.85	0.85	0.44	0.49	0.61
2001	0.74	0.80	0.44	0.88	0.54	0.72	0.74	0.87	0.86	0.45	0.43	0.60
2002	0.71	0.80	0.44	0.89	0.51	0.72	0.74	0.87	0.86	0.45	0.45	0.61
2003	0.70	0.81	0.45	0.89	0.51	0.74	0.72	0.86	0.86	0.45	0.39	0.62
2004	0.71	0.81	0.46	0.90	0.51	0.76	0.71	0.86	0.85	0.46	0.37	0.64
2005	0.70	0.82	0.47	0.90	0.51	0.76	0.72	0.85	0.85	0.47	0.36	0.64
2006	0.71	0.80	0.47	0.90	0.53	0.75	0.73	0.85	0.85	0.49	0.39	0.64
2007	0.72	0.81	0.50	0.91	0.55	0.72	0.73	0.85	0.86	0.49	0.39	0.64
2008	0.73	0.82	0.53	0.92	0.52	0.73	0.73	0.85	0.85	0.47	0.42	0.64
2009	0.73	0.81	0.51	0.92	0.51	0.71	0.76	0.86	0.85	0.46	0.42	0.65
2010	0.73	0.82	0.49	0.93	0.48	0.71	0.74	0.85	0.85	0.50	0.40	0.66
2011	0.75	0.83	0.52	0.93	0.49	0.72	0.73	0.85	0.85	0.53	0.41	0.67
2012	0.74	0.82	0.52	0.94	0.51	0.71	0.75	0.85	0.87	0.56	0.42	0.67
2013	0.73	0.81	0.52	0.94	0.50	0.69	0.75	0.85	0.87	0.57	0.46	0.68

Table 3. Share of top five or ten trade partners

	1975	1980	1985	1990	1995	2000	2005	2009
EX 5	0.695	0.566	0.636	0.633	0.538	0.554	0.535	0.497
EX 10	0.794	0.697	0.771	0.753	0.689	0.689	0.650	0.622
IM 5	0.781	0.749	0.587	0.650	0.614	0.558	0.559	0.509
IM 10	0.889	0.869	0.704	0.763	0.732	0.709	0.715	0.673

\* EX indicates that Korea exports to these countries and IM means Korea's import from these countries.

Table 4. Hirschman Herfindahl index for trading partners

	1975	1980	1985	1990	1995	2000	2005	2009
EX	0.171	0.105	0.161	0.139	0.079	0.086	0.085	0.077
IM	0.196	0.151	0.115	0.142	0.124	0.092	0.086	0.073

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# Sheikh Wan Ahmad al-Fatani and the Malay Publications in the Middle East

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Received: April 5, 2015 Accepted: June 10, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p90

URL: <http://dx.doi.org/10.5539/ass.v11n24p90>

## Abstract

The Middle East had become the focus for the Malays to gain education. However, the expansion of publication in Malay script do plays substantial role in the development of intellectual and knowledge. Renowned scholar, Sheikh Wan Ahmad al-Fatani acts by printing various works of Islamic knowledge into Malay script. It is said that he gained the capital and support from the Ottoman Dawlah. Under the reign of Sultan Abdul Hamid II (1876-1909) he was appointed as the supervisor of Matbaah al-Mirriyyah al-Kainah in Mecca. Financing from the Ottoman Dawlah helps the Malay script works to be printed on a large scale and disseminated throughout the Muslim world. Therefore, this paper is designated to study of Sheikh Wan Ahmad and expansion of publication in Malay printings script in the Middle East that produce significant contributions in the Malay World epistemology image formation within the Middle East region.

**Keywords:** Sheikh Wan Ahmad al-Fatani, Middle East, Malay publication

## 1. Introduction

Based on the review of the early Malay publications, namely around 1850's, indicated the existence of places of publication and printing which crosses the archipelago. Malay books during that period contain copyrights of the publisher and printing from the Malay Archipelago, Europe, Middle East, South Africa, continent of India, Hong Kong and Turkey. The biggest operation conducted outside the Malay Peninsula and Singapore was in the Middle East and Turkey. The Malays has traveled to the Middle East as early as in fifteenth and sixteenth century to perform pilgrimage and studied Islam. The earliest school in Mecca was Masjid al-Haram. Group of students were lectured by renowned scholars such as Sheikh Muhammad Arshad al-Banjari and Sheikh Nawawi al-Bantani as soon as they finished their daily prayers. Aside from Mecca, Malay students were also travelled to Istanbul and other cities in the Middle East. The authors of Malay script end their long academic sojourn in the region. They lived and studied in Mecca, Medina, Ta'if, Cairo, Jerusalem, Beirut, Istanbul, and Alexandria under the scope of renowned scholars (Note 1).

Many had come back to the homeland, although there were some that choose to stay and works as writer, teacher and scribe. Some of them held important positions such as Mufti and religious leader. Some of the earliest writer that stayed in Mecca was Abdul Malik bin Abdullah, Muhammad Arshad al-Banjari, Nawawi al-Bantani and Daud al-Fatani. They were famous Malay manuscript writers. When printing equipment were introduced in Istanbul, Cairo and Mecca, their works was published in the form of printed copies. (Note 2)

## 2. The Publishing of and Printing Malay Script in the Middle East

When discussing about the printings of Malay books, we can't exclude the roles of the publication center that is located in the Middle East. The relation between the Malay Archipelago and the said region was not based on the education field and prestigious scholars only, but also related to the publishing and printing aspects. The mass printings in the Middle East also lead to the increasing of distribution of Malay books to other Islamic region, including Malay Archipelago.

In 1729, a Hungarian named Ibrahim Muteferika who converted to Islam, opened the first publishing spot in Istanbul, which was also the earliest in Turkey for Arabian printings. Early printings in Turkish and Arabic language were not allowed by the current ruler during that time. Before that, Jewish refugees from Spain had

used the printing equipments from the Middle East in 1493 or 1494. However, their printing activities were limited to Ibrani and other European languages. Sons of Turkey Ambassador in Paris, Ibrahim and Said Helebi were responsible in managing the first Turkey printing center. Unfortunately, the printing center could only last for thirteen years and was producing works which was not religious. The printing center was reopened by Sultan Abdul Hamid I in 1784 and it expanded vastly. During that time, Syria got its own printing center. These are the place where the works by Muslims in Mecca, especially works in Arabic language first printed. (Note 3)

The earliest printing in Egypt was developed in Bulaq in 1822. It was based on the wish made by the ruler, Muhammad Ali. The printings in Egypt played huge role in spreading and developing Islamic ideas. There was no hindrance while doing so in Egypt. The printings promote the opinion regarding the revival and improved Islam as well as the ideas of uniting the Muslims. Numbers of books, newspapers and magazines were printed and published in Arabic, English, Turkish and other Eastern language. (Note 4)

The printing and publishing activities in the Middle East entered a new phase in 1884 when Sheikh Wan Ahmad bin Muhammad Zain al-Fatani was appointed as supervisor and interpreter for a new printing called *Matbaah al-Miriyyah al-Kainnah* in Mecca by the Dawlah Ottoman. (Md. Sidin & Mohammad Redzuan 2000 : 60). Based on the number of books printed since 1884 in Mecca, shows the importance of Malay people in Mecca especially when it comes to the trust gained from Dawlah Ottoman. (Note 5)

The Malay readers in the Middle East were students, teachers and the pilgrims. The opening of Suez Canal in 1869 increased the communication link. Based on the report during the mid 20<sup>th</sup> century, about 2000 pilgrims went for Mecca and it was increased to 7000 pilgrims at the end of the century. Aside from Malay readers in Mecca, Cairo and other parts in the Middle East, there were also regular buyers from Malay Peninsula, Indonesia, Patani and Cambodia. The importation of books were made by pilgrims head and Arabian traders. (Note 6)

One of the active publisher and distributor of Malay books was Ahmad bin Abdullah Mujallid or Ahmad Mujallid who was of Indian descent. In 1892, he listed out almost 50 titles of books written by a few writers which he published them himself. His activities were operated at Bab al-Salam, near to Masjid al-Haram. Most of the books published by him were printed at *Matbaah al-Karimiah* and some of the books were already printed by Sheikh Wan Ahmad al-Fatani at *Matbaah Fataniah*. (Note 7)

The discussion on Malay printings in the Middle East won't be complete if Sheikh Wan Ahmad Muhammad Zain al-Fatani were to left behind. He had a close relationship to Sheikh Mustafa al-Babi al-Halabi. Sheikh Wan Ahmad was appointed as a proofreader and interpreter for the books that were processed at *Matbaah Mustafa al-Babi al-Halabi*. At that time, he proposed to print the books written by the parson from Malay world. Unfortunately, Sheikh Mustafa opposed Sheikh Wan Ahmad's idea due to the problems of marketing the piece. His reason was also supported with the fact of lesser Malay people in Egypt as well as other parts of the Middle East.

In addition, Sharif of Mecca does not allowed books written in other languages except in Arabian to enter Medina and Mecca. Due to the disappointment of his idea being turned down, Sheikh Wan Ahmad then befriended al-Amjad al-Kasymiri Fida Muhammad and the latter's son, Abdul Ghani agreed to sponsor the printings of *Hidayah al-Salikin* written by Syekh Abdul Samad al-Falembani. The book was printed by Sheikh Hassan al-Tukhi printing near to Masjid Jami' al-Azhar in Egypt and it was the first Malay book printed in Egypt. (Note 8). To broaden the publishing of Malay books, Sheikh Wan Ahmad approached the owner of *matbaah* or printing house in Egypt in order to make sure that the religious manuscript written in Arabic or Malay language to be read and flourish.

The Malay language that were used in the writings of Malay books was usually used as Arabian language in *Lisan al-Jawi* and is the spoken language for the people in Malay Peninsula, Patani and other parts in the region. The writings of Malay books were meant for those who were not skillful in Arabic. These books were not only used by the Malay people who were living within the community from the Malay world, but also used by any people who lived either temporarily or permanently in Mecca. The Malay people who lived in Mecca usually pursuit the knowledge from parson who were from Patani and Dutch East India. (Note 9)

Sheikh Wan Ahmad al-Fatani was of Islamic religious broadcasters' descent which originated from Hadhramaut and his real name is Syekh Wan Ahmad bin Muhammad Zainal Abidin bin Mustafa bin Muhammad al-Fatani. Born in 1956 in Kampung Jambu, Patani, Thailand and died in 1908. He was buried in al-Ma'la's burial ground which is near to Siti Khadijah's tomb. He was the first Malay parson to become an interpreter of Malay books. The first book printed by him was *Hidayah al-Salikin*, written by Sheikh Abdul Samad al-Falimbani with the first printing in 1300H. Before this period, the Malay books were in handwritten. (Note 10)

He received his early education from his own family, which comprises parson including his father and his uncle, Syeikh Abdul Qadir (Tok Bendang Daya) and later furthered his studies in Mecca and pursuit the knowledge from other parson. One of the parsons was Syeikh Abdul Rahim al-Kabuli. Later on, he furthers his studies at Bait al-Maqdis and Masjid Jami' al Azhar. He was the first Malay to study at the said institution. (Note 11) One of his piece that mentioned Dawlah Ottoman was *Hadiqatul Azhar wa al-Rayahin* and *Tarikh Turki Utsmani*. (Note 12)

### 3. Sheikh Wan Ahmad's Focuses and Accuracy in Printing Malay Books

With the encouragement and support from Dawlah Ottoman, the Islamic books including Malay books were printed massively and distributed throughout the Islamic world. Sheikh Wan Ahmad constantly traveled back and forth between Egypt, Mecca and Istanbul due to printing busines. (Note 13) One of Malay parson named Sheikh Utsman Syihabuddin al-Funtiani composed a poem and dedicated it to Sultan Abdul Hamid II for his effort :-

*Making a mark in the exceptionally good books*

*Therefore many books translated to Malay*

*As he loves to translate*

*Dedicated for its benefit*

*One book turned to thousands of copies*

*His rewards and deeds prolonged*

The poem consists of 10 verse and the first verse praising Sultan Abdul Hamid II and it was mentioned in *Kitab Fath al-Makkah*, Matba'ah al-Mirriyah al-Kainah print in Mecca 1311H/1898M. (Note 14) Sheikh Utsman bin Shihabuddin al-Banjari was a son of famous parson, originated from Pontianak, Kalimantan, Indonesia. He received his early education from his family before continued his studies in Mecca. Some of his teachers were Sayid Muhammad Shalih bin Abdul Rahman al-Zawawi, Syeikh Abdul Hamid al-Syarwani and Syeikh Abdul Qadir bin Abdur Rahman al-Fatani. Some of his written works were *Tajul Arus*, *Fathul Makkah*, *Tanwirul Qulub fi Isqati Tadbir al-'Uyub*, *Risalah Tafsir Surah Yasin* dan lain-lain. (Note 15)

Thanks to the role played by Sheikh Wan Ahmad, the printing center in Mecca produced a huge number of Malay books. This realized his dreams of expanding Islamic knowledge through Malay language. He made careful planning to print and publish the books of high quality. He edited the famous manuscripts written by Nuruddin al-Raniri, Abdul Samad al-Falembani, Abdul Malik Abdullah, Muhammad Nafis al-Banjari, Muhammad Arshad al-Banjari, Muhammad b. Ismail Daud al-Fatani and Muhammad Zain bin Jalaludin and specifically Daud al-Fatani. (Note 16)

Some of the famous works by Sheikh Daud al-Fatani that was printed in Mecca was *Furu' al-Masail* that had been used in Indonesia, *Kasyf al-Ghummah*, and *Jam'al al-Fawaiid*. With the printing houses were sponsored by the Dawlah Ottoman, it was obvious for Malay books to be printed as it gained important place. (Note 17) Sheikh Wan Ahmad had also been entrusted to edit the Arabic books written by figures like Abu Bakar al-Shata, Jaa'far Ismail al-Barzanji, Abdullah bin Uthman al-Makki and Sulaiman al-Jazuli. Although he was busy editing and interpreting books, he managed to write his own books. Starting from 1884, he wrote more than 30 books in Arabic and 20 books in Malay. This success gained by Sheikh Wan Ahmad inspiring Malay students and teachers to publish their own writings in the Middle East. (Note 18)

Sheikh Wan Ahmad passed away in Mina, Saudi Arabia in 1908. It was not clear of whom replacing him as a supervisor in Malay publication and printing. However, *Maktabah Fataniah* and Ahmad bin Abdullah continued to become an important distributor for Malay books in Mecca until the early 20<sup>th</sup> century. During these times, Malay books were started to be printed by other printing houses, including *Matbaah al-Turki al-Majidiah*. The activities of Malay printings in Mecca was followed by the effort made in Egypt and Turkey. Eventhough there were printing activities in Malay conducted in Istanbul and Egypt before that, the printing center in Mecca had driven them to print bigger number of books. The increasing number of Malay students in Cairo motivates them. In early 1920s there were few publishers and printings which acted as a producer and distributor of the Malay books. One of the successful publisher was Mustafa al-Babi al-Halabi and *Dar Ihya al-Kutub al-Arabiyyah*. (Note 19)

There were numbers of printing houses which was owned by the Malay. *Matbaah al-Marbawiah* was one of them as it was pioneered in 1920s by Muhammad Idris al-Marbawi which was a famous Malay parson that resides in Egypt. Furthermore, there was also *Matbaah al-Ittihadiyyah*, which was built by Muhammad Fadlullah Suhaimi al-Azhari in 1914. Both Muhammad Idris al-Marbawi and Muhammad Fadlullah Suhaimi were Malay



eminent writer based in the Middle East during that time. They were involved in the effort of editing publication made by the Malay students in Cairo. Between 1925-1940 there were at least four Malay magazine, three of them were *Seruan Azhar* (1925-1928), *Pilehan Timur* (1927-1927) and *Kitab Perbendaharaan Ilmu* (1929-?) published in Cairo while *Perseruan Islam* (1937-?) was published in Mecca. Other writer that lives in the same era with them was Ahmad bin Abdul Latiff, preacher of Shafi'i sect in Mecca. He wrote four books within 1912 to 1927. Hussain Nasir bin Muhammad Taib al-Mas'udi al-Banjari published two books in Cairo. (Note 20)

To publish or to print the work, Sheikh Wan Ahmad first collected various versions of that particular work. If he failed to retrieve the original copy, he would collect more duplicate copies of it. Apart from using the original copy and its duplicators, he also referred to lithographed copies that was published. If the Malay work is a translated work of Persian and Arabic, he will make comparisons between the translated work and the original work by the author. If the work is made by an unknown author, Sheikh Wan Ahmad will use linguistic knowledge to determine the style of the language that was used by the author or the style of the language used in a district. (Note 21)

When it comes to translating a piece of work, Sheikh Wan Ahmad will make comparisons to the original piece, other than using the translated copies. This is to correcting the language errors as well as the confusion that can be found in the translated copies. This measure was taken when he interpreted *Kasyf al-Ghumamah* by Sheikh Daud bin Abdullah al-Fatani.

The comparisons of the style of language were made in order to determine the originality of a piece of work. It was applied to determine the authenticity of *Syarah Hikam Melayu*. At first, it was said to be a work of a person from Terengganu but, after an inspection, it was actually made by a person from Aceh. Sheikh Wan Ahmad cancelled the first findings when he retrieved a new one and it was mentioned in the 1884 print of *Syarah Hikam Melayu* by Matbaah al-Miriyyah al-Kainnah, Mecca. (Note 22)

In order to determine the quality of the publishing and printing of Malay books, Sheikh Wan Ahmad does not hesitate to criticize and protest if he found inaccurate facts and invalidity. He did this when the books printed by Ahmad Mujallid in *Bab al-Salam* were credited to Sheikh Daud al-Fatani as the author since he was a famous parson in order to attract buyers. Sheikh Wan Ahmad did a research and managed to determine that the small pamphlet on twenty traits was not written by Sheikh Daud al-Fatani. His expertise were not limited to knowing the language style used by Sheikh Daud al-Fatani, but also the language style used by other authors which he had worked on before. Therefore, he opposed this attitude that was motivated by profit. (Note 23)

#### 4. Conclusion

Thoroughly we can see that Malay books that were spreading within the Malay people were also been printed outside of the Malay World. The Middle East and Turkey became the important center of publishing for Malay books. The expanding of the printing industry leads to the effort of increasing the printed works of famous Malay parsons. The dedicated figures were responsible in interpreting and printing Malay books, thus played an important role in enriching the treasured Malay's knowledge.

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## Notes

Note 1. Md Sidin Ahmad Ishak, 1998, *Publication and Printing Malay Book 1807-1960*, Kuala Lumpur, Dewan Bahasa Pustaka, pp. 105-106

Note 2. Ibid, pp. 107.

Note 3. Ibid.

Note 4. Ibid, pp.109.

Note 5. Hurgronje S. 1970, *Mekka in the Latter Part of the Nineteenth Century*. Translated. J.H Monahan, Leiden , E.J Brill, pp. 286.

Note 6. Md. Sidin & Mohammad Redzuan, 2000 *The Malays in the Middle East With Bibliography of Malay Printed Works Published in the Middle East*, Kuala Lumpur, University of Malaya Press, pp. 62.

Note 7. Ibid, pp. 63.

Note 8. Wan Mohd Shaghir Wan Abdullah, 2005 *Syeikh Ahmad al-Fatani A Great Malay Muslim Scholar*, Kuala Lumpur, Persatuan Pengkajian Khazanah Klasik Nusantara dan Khazanah Fathaniyah, pp. 96-99.

Note 9. Hasan Madmarn, 2001, *The Pondok and Madrasah in Patani*, Bangi : Penerbit UKM. 2001, pp. 121.

Note 10. Wan Mohd Shaghir Abdullah, 1972, "Al-Sheikh Wan Ahmad bin Muhammad Zain bin Mustapha bin Muhammad al-Patani". *Dian*, Kota Bharu, Syarikat Dian Sdn. Bhd, pp. 43-45.

Note 11. Mohd Zamberi A. Malik, 1994, *Patani In Malay Civilization*, Kuala Lumpur : Dewan Bahasa dan Pustaka, 1994, pp.114.

Note 12. Wan Mohd Shaghir Abdullah, 2005, *Syeikh Ahmad al-Fatani A Great Malay Muslim Scholar*, Kuala Lumpur, Persatuan Pengkajian Khazanah Klasik Nusantara dan Khazanah Fathaniyah, pp. 13.

Note 13. Ibid, pp. 96-99.

Note 14. Ibid. p. 99.

Note 15. <http://ulama-nusantara-baru-blogspot-com/2006/11/sheikh-utsman-syihabuddin-ulama-html>.

Note 16. Md. Sidin & Mohammad Redzuan, 2000 *The Malays in the Middle East With Bibliography of Malay Printed Works Published in the Middle East*, Kuala Lumpur, University of Malaya Press, p. 60

Note 17. Hurgronje, S. 1970, *Mekka in the Latter Part of the Nineteenth Century*. Translated. J.H Monahan, Leiden , E.J Brill, pp 287.

Note 18. Wan Mohd Shaghir Abdullah, 2005, *Syeikh Ahmad al-Fatani A Great Malay Muslim Scholar*, Kuala Lumpur, Persatuan Pengkajian Khazanah Klasik Nusantara dan Khazanah Fathaniyah, p. 61

Note 19. Md Sidin Ahmad Ishak 1998, *Publication and Printing Malay Book 1807-1960*, Kuala Lumpur, Dewan Bahasa Pustaka, pp. 115.

Note 20. Ibid.

Note 21. Wan Mohd Shaghir Abdullah, 2005, *Syeikh Ahmad al-Fatani A Great Malay Muslim Scholar*, Kuala Lumpur, Persatuan Pengkajian Khazanah Klasik Nusantara dan Khazanah Fathaniyah, p. 92.

Note 22. Ibid, pp. 93-94.

Note 23. Ibid, p. 95.

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## Trauma of Displacement in V.S. Naipaul's *The Mimic Men*

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Received: April 8, 2015 Accepted: May 29, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p95

URL: <http://dx.doi.org/10.5539/ass.v11n24p95>

### Abstract

This research considers displacement in Naipaul's *The Mimic Men* as a traumatic experience. Taking an interdisciplinary approach to the subject of my study, it explores the historical and psychological dimensions of the displacement in the novel, as well as its literary representations. In the first step, I depicted the displacement as a traumatic experience for the protagonist by the illness which displacement causes Post Traumatic Stress Disorder. In the second step, I suggested two ways the protagonist goes through to remember their trauma. These ways are two different kinds of memory, namely, "acting out" and "working through". I take "acting out" and "working through" as different but not opposite processes. "Acting out" and "working through" may never be totally separated from each other, and the two may always mark or be implicated in each other. In the third step, I also looked at the impacts of trauma of displacement on the structural and formal components of *The Mimic Men*.

**Keywords:** Trauma, Displacement, PTSD, "Acting out", "Working through", Trauma and Literature

### 1. Introduction

V.S. Naipaul is an Indian by ancestry, a Trinidadian by nativity and British by residence and intellectual training. The distinctive combination of circumstances, which relates him to the three societies, certainly plays a predominant part in shaping his sensibility and determining his writing career. He said, "when I speak about being an exile or a refugee, I am not just using a metaphor" (Rowe-Evans 62). He was born into exile, separated his racial and cultural roots and driven into another exile from the land of his birth. The contradictions inherent in his background form the pivot of his work. As Landeg White says, "... the struggle against the effects of displacement lies at the heart of his work" (3).

V.S. Naipaul is obsessed with displacements in his works. Portrayal of displacement in his works is unique. In Gillian Dooley's words in her article, "The Imaginative Promptings of My Many-Sided Background V.S. Naipaul's Diasporic Sensibility", Naipaul "instead of drawing heavily on memories of the homeland and the collective identity, he has made his difference into a distinction and turned his alienation into an abiding preoccupation"(3).

Leading trauma scholar, Cathy Caruth, in her book *Trauma: Exploration in Memory* (1995), asserts, "To be traumatized is precisely to be possessed by an image or event" (4). Naipaul's obsession by displacement in his works implies that displacement is a traumatic experience for him, and as a traumatic event overwhelms the psychic defences and normal processes of registering memory traces, displacement should be approached in his works psychologically, an issue which has been relatively ignored by his critics. The main focus of Naipaul's critics has been on postcolonial diasporic studies which consisted political and/or ideological aspects of displacement. This research considers displacement in Naipaul's *The Mimic Men* as a traumatic experience. Taking an interdisciplinary approach to the subject of my study, it explores the historical and psychological dimensions of the displacement experience, as well as its literary representations. Based on the theoretical work of trauma theorists such as Cathy Caruth, Dominick LaCapra, this study attempts to investigate the effects of trauma of displacement in *The Mimic Men*.

### 2. The Mimic Men

*The Mimic Men* is the story of Ranjit Kripalsingh or Ralph Ranjit Kripalsingh, as he is prefer to be known, the only son of a Hindu family on the fictional Caribbean island of Isabella who moved to England to continue his studies. He married an English girl named Sandra and returned to Isabella, where he became a successful

property developer and building contractor, and entered into politics. His marriage broke up and after his sudden withdrawal from his political career in Isabella, he went back to England and settled down in the old boarding house (now a hotel) where he started writing his memoirs.

### 3. Theoretical Framework

In 1980, the arrival of Post-Traumatic Stress Disorder (PTSD) assisted to consolidate a trauma paradigm. The American Psychiatric Association included in the new edition of its official diagnostic manual the symptom indicators for a new illness: Post-Traumatic Stress Disorder. Individuals who experience traumatic events seem to produce certain identifiable somatic and psycho-somatic disturbances. Aside from myriad physical symptoms, trauma disrupts memory, and therefore, identity in peculiar ways. The American Psychiatric Association official diagnostic manual classifies the PTSD's symptoms: The first cluster of symptoms relate to the ways in which the traumatic event is persistently 're-experienced' - through intrusive flashbacks, recurring dreams, or later situations that repeat or echo the original. Weirdly, the second set of symptoms suggests a complete opposite: 'persistent avoidance of stimuli associated with the trauma' that can range from avoidance of thoughts or feelings related to the event to a general sense of emotional numbing to the total absence of recall of the significant event. A third set of symptoms points to the 'increased arousal, including loss of temper control, hyper-vigilance or exaggerated startle response'. Symptoms can come on acutely, persist chronically, or in another strange effect, appear belatedly months or years after the precipitating event.

There are two very broad ways of coming to terms with trauma: "acting out" and "working through". Dominick LaCapra defines "acting out" as a state "in which one is haunted or possessed by the past and performatively caught up in the compulsive repetition of traumatic scenes [...]. In "acting out", tenses implode and it is as if one were back there in the past reliving the traumatic scene" (*Writing History* 21). There are many different ways in which a person can "act out" his or her traumatic experiences. In acting out, one usually keeps on repeating the painful events in the forms of flashbacks, nightmares or compulsive behaviour, dreams, hallucinations, illusions, avoidance of problem, lack of memory, and excess of memory. In *The Mimic Men*, Singh mostly "acts out" his trauma of displacement through dreams, images, his behaviour and reactions in different situations and his confrontation with people. "Working through" is the other possible reaction to trauma. Dominick Lacapra in his book, *Writing History, Writing Trauma* (2001), states that "In the working through, the person tries to gain critical distance on a problem, to be able to distinguish between past, present and future" (143). Generating countervailing forces to "acting-out" is the way that a traumatised can palliate the symptoms of trauma. Besides generating countervailing forces to "acting-out", LaCapra seconds the psychoanalytic requisite of testimony as the fundamental stipulation to working through trauma. In the following section, I elaborate how Singh "works through" his trauma.

One of the other concepts I used for the analysis of *The Mimic Men* is the impact of trauma theory on literary texts. For an analysis of literature on the basis of the trauma theory, it is important to go beyond the psychological analysis and to consider the structural and formal components of the work of art. In trauma fiction, conventional narrative techniques do not suffice to represent the traumatic event. Instead, trauma fiction pushes these conventional techniques to the limit. Anne Whitehead sums up some of the main characteristics of trauma fiction in her eponymous book, 'Trauma Fiction' (2004). Non-linearity, repetition and intertextuality form three important modes of representation in the traumatic narratives in Whitehead's book, all of which are traced in *The Mimic Men*.

### 4. Post-Traumatic Stress Disorder

This study considers displacement as a traumatic experience for the protagonist in Naipaul's *The Mimic Men* by the illness that displacement causes, PTSD (Post Traumatic Stress Disorder). In *The Mimic Men*, there are some of these symptoms which I depict in the following parts. *The Mimic Men*'s protagonist Ralph Singh shows symptoms of PTSD both in Isabella and England. Although Ralph Singh's ancestors emigrated from India to Caribbean many years ago and he was born in the Caribbean island of Isabella, he feels displaced there. As a child, Singh does not have a sense of belongingness in Isabella. He describes his childhood like this:

I could scarcely wait for my childhood to be over and done with. I have no especial hardship or deprivation to record. But childhood was for me a period of incompetence, bewilderment, solitude and shameful fantasies. It was a period of burdensome secrets. (90)

For him, it is this sense of displacement that makes him a nonentity. Thus, shortly after his failure as a cricketer, he decided to leave Isabella, "I wished to make a fresh, clean start. And it was now that I resolved to abandon the shipwrecked island and all on it..." (p. 118). He resolves to seek his autonomous identity in London, the bosom of the mother:

Coming to London, the great city, seeking order, seeking the flowering, the extension of myself that ought to have come in a city of such miraculous light, I had tried to hasten a process which had seemed elusive. I had tried to give myself a personality (p. 26)

Thus, as an immigrant student in London living among a group of displaced people on the fringe of London's reality, wanting hopelessly to make contact with the city, but being unable to do so. Singh likens the reality of the city (which he yearns for) to a malicious living organism that feeds on the personalities it divides:

In the great city, so three-dimensional, so rooted in its soil, drawing colour from such depths, only the city was real. Those of us who came to it lost some of our solidity; we were trapped into fixed, flat postures. And in this growing disassociation between ourselves and the city in which we walked, scores of separate meetings, not linked even by ourselves, who became nothing more than perceivers: everyone reduced, reciprocally, to a succession of such meetings, so that first experience and then the personality divided bewilderingly into compartments (p. 27)

Regarding the above quotation, Singh is unable to accomplish his dream of finding his autonomous identity in his ideal landscape, London, and thus overcomes his sense of displacement. On the contrary, he starts to have "the panic of ceasing to feel myself as a whole person" (27). After his unhappy experience in London, Singh returns home to Isabella, where he is offered a second chance to declare his autonomy.

Judith Herman in her book, *Trauma and Recovery* (1997) writes,

Traumatic events call into question basic human relationships. They breach the attachments of family, friendship, love and community. They shatter the construction of the self that is formed and sustained in relation to others. They undermine the belief systems that give meaning to human experience. They violate the victim's faith in a natural or divine order and cast the victim into a state of existential crisis. (50)

Singh's relationships illustrate the exile's isolation, his split or fragmented identity. He is incapable of forming meaningful or lasting relationships. He describes his distaste for intimacy yet his fetish for fondling and being fondled: "Intimacy: the word holds the horror. I could have stayed for ever at a woman's breasts, if they were full and had a hint of weight that required support. . . . [As for sex] I was capable of the act required, but frequently it was in the way that I was capable of getting drunk or eating two dinners" (25). For Singh, breasts signify the centre, home, the time before the shipwreck of his exile's life. He is initially attracted to his future wife, Sandra, because her breasts seem to match this ideal. In a dream he imagines himself a baby suckling at his mother's breast. "What joy!" he exclaims. "The breast on my cheek and mouth: a consoling weight, the closeness of soft, smooth flesh" (116). His confessions of sexual failures are similar to his inability to be part of or to lose himself in someone or some group beyond himself.

Regarding existentialism in Naipaul's works, Serafin Roldan-Santiago in her article "Pessimism and Existentialism in V. S. Naipaul" states that, "existential sense is thus the idea or driving force that envelops many of his narratives". In *The Mimic Men*, there is an existential vision of an absurd, meaningless universe, a world populated by mankind without any god or purpose. Singh's fear of death, reinforced by the drowning he witnesses at the beach, his sense of futility, his feeling that only what is seen exists, and that 'A man was only what he saw of himself in others' (p. 100) are familiar themes from Sartrean existentialist philosophy. In addition, existentialist is Singh's desire to be part of something larger, his concern with how he appears to others, and his attempt to transcend personal solitude through political action. Such existentialist, Sartrean, themes are introduced early in the novel: 'It was up to me to choose my character' (p. 20); 'We become what we see of ourselves in the eyes of others' (p. 20). He is not certain whether his character has been created by others or whether it is 'one and indivisible'. In the next part, I discuss how Singh responds to the trauma of displacement and sees if he "acts out" or "works through" his trauma of displacement.

## 5. Acting Out

So far, I have explored how displacement is traumatic for the protagonist of *The Mimic Men*. In the following, I investigated the ways Singh responds to his trauma. There are two very broad ways of coming to terms with trauma: "acting out" and "working through".

In childhood, Singh responds to his sense of displacement by dreaming of India, the homeland, and of his origin. He reads books on Asiatic and Persian Aryans and dreams of horsemen who look for their leader:

China was the subject of Hok's secret reading. Mine was of Rajputs and Aryans, stories of knights, horsemen and wanderers. I had even read Tod's difficult volumes. I had read of the homeland of the Asiatic and Persian Aryans, which some put as far away as the North Pole..And I would dream that all over the

Central Asian plains the horsemen looked for their leader. (98)

Singh is also troubled by his Indianness in the New World. Although he dreams of an idealised Indian past to which he will return, he attempts to Anglicize himself, "My reaction to my incompetence and inadequacy had been not to simplify but to complicate. For instance, I gave myself a new name" (93). Singh's idealism about a heroic past totally collapses by the actions of his father. Although Singh spends time more with his mother's family, he has tendency towards his father, "I must explain. I cherished my mother's family and their Bella Bella Bottling Works. But in my secret life I was the son of my father, and a Singh" (98). Singh's family life is disrupted when his father goes away to choosing a life of 'sanyasi' living with another woman. His father wants to use religion as a tool to secure a place of power for himself and to retain Hinduism; in the process, he destroys his son's belief. Singh was further shocked when his father sacrificed Tamango, the race horse, which according to the Hindu religion is an act of sacrifice to secure prosperity and fertility. Although Singh idealises his Hindu past and culture, he is in fact unable to understand Hinduism, and thus, as Thieme has observed, when the horse is killed, the ideal past collapses and the concrete experience shocks the child (133). Hindu rituals have lost their meaning in Isabella as the people have lost their connection with India, its culture, customs and traditions. Thus, as Bruce King claims, by leaving India and going to the Caribbean islands, the Indians are doomed to isolation and dislocation:

The process of losing one's Indianness started with leaving India. That was the original sin, the fall. After that Indian traditions could only either decay into deadening ritual or become diluted, degraded and eventually lost through outside influences and intermarriage with others. (68)

Singh's heroic thoughts about India crumbled and his own culture became meaningless to him. Singh understood that an island so full of viciousness could not be an epitome for anyone to search for history or have a productive future. Thus, his suffocation grew and his urge to escape became even stronger: "I wished to fly, to begin afresh, lucidly." (169-170)

Singh creates an ideal and heroic past which is in conflict with the real-life condition in Isabella. For example, he goes to the beach house owned by his grandfather and one day, he sees the death of three children who are drowned in the sea while the fishermen do nothing to save them (108-109). At that point, he realizes that Isabella cannot be the ideal landscape he is searching for. As Thieme has observed, the beach scene refers to the myth of Perseus who was saved from being drowned in the sea by Dictys, a fisherman and a hero, who presents a contrast with the passive and selfish Carib-African fishermen. Hence, "Singh's experience on the beach makes him too aware of the distance between Isabella and his true, pure world" (117). After seeing the drowning, he concentrates on school and takes up sports. He puts his name down for cricket but after preparing for some time, he decides on the day of competition to withdraw. While writing his biography, he recalls the dream that has caused him to withdraw:

I had dreamt that I was a baby again and at my mother's breast. What joy! The breast on my cheek and mouth: a consoling weight, the closeness of soft, smooth flesh. It had been at dusk, in a vague setting, no lights in a back veranda, all around a blue of dark bush. My mother rocked and I had the freedom of her breast. A dream? But no, I was not dreaming. What pain then, what shame, to awaken! (116)

To Singh, what prevents him from declaring his autonomy at school is his sense of not belonging to the "shipwrecked island" (105) of Isabella; for him, it is this sense of displacement that makes him a nonentity. Thus, shortly after his failure as a cricketer, he decides to leave Isabella, "I wished to make a fresh, clean start. And it was now that I resolved to abandon the shipwrecked island and all on it..." (118). His eventual departure for London is preceded by the drama and intensity of his incestuous affair with Sally and near-showdown with Dalip (190).

Singh travels to London in order to find sense of belonging as he found Isabella as a place associated with the sense of unbelongingness. In London, Singh locates an initial sense of ordering and calmness. He speaks of the city as "so solid ..." as it presents a solidity and simpleness, a place easily understood, presenting a kind of order not available in Isabella (23). Singh's boarding house and the relationship with Lieni further this initial sense of order, providing Ralph with guidance through the city. This order is quickly lost, however, as Ralph notes, "so quickly had London gone sour on me" (22). His loss of order is marked by the breakup of the boarding house, "with Lieni and Mr Shylock's boarding-house one type of order had gone for good. And when order goes it goes" (36). Singh comments that he can no longer "feel [himself] as a whole person," that he has "become distorted," and that "those of us who came to [London] lost some of our solidity" (33-32). London draws Singh through the growing confusion that constantly pulls him apart and brings about a rootlessness and impermanence to his self. It is because of this that Singh describes London as "the greater disorder, the greater shipwreck" and he predicts,

"the crash was coming", which would bring about the culmination of the messiness of this London experience (214, 33). Singh explains concerning his first stay in London, "it was during the time of breakdown and mental distress when ... I travelled about England and the Continent with no purpose, not even pleasure" (49).

When the boarding house breaks up, Ralph enters a life of transience, "From room to room I moved, from district to district going ever farther out of the heart of the city" (36). He describes himself as "restless" and having "this feeling of being adrift ...," of having been destabilised, of having the (once) solid ground pulled out from beneath his feet (36, 32). Ralph attempts to deal with these feelings through movement. As Robert Hamner recognises in his study on Naipaul, "... Ralph tries to locate himself and give concreteness to his actions by touring London ... and by pursuing affairs with various seemingly anonymous women" (139). This movement is initially observable in his visits to the art galleries, which he utilises because of "their excuse for movement backwards, forwards, and sideways, any number of times ..." (26-7). Ralph's movement grows in intensity with the excursion trains, which allow him to move across England to pick up women. This movement becomes so intense, "Will I be believed if I say that on four successive Wednesdays I made lucky strikes on the Oxford train?" (27)

Dominick LaCapra in his book, *Wring History, Writing Trauma* (2001), writes, "As in acting out in general, one possessed [...] by the past and reliving its traumatic scenes may be tragically incapable of acting responsibly or behaving in an ethical manner" (28). In *The Mimic Men*, the unethical behaviour manifests in Singh's sexual promiscuity. He keeps a diary that he says developed into "a type of sexual autoeroticism",

Nor can I understand why I began keeping a sexual diary. I began it, I remember, out of boredom and idleness; but soon it developed into a type of auto-erotic enterprise. It was myself, my minutest reactions that I sought to analyse. (25-26)

One of the other Singh's characteristics which depicts his "acting out" is his behaviour with women. Singh's encounter with women mostly ended in violence, an extraction of his anguish "this remained a shame for some time; for I had actually shouted at the girl. I have been guilty of three or four acts of pure cruelty in my life" (32). Singh knew his personal agony was no excuse for the bizarreness he showed towards these women but he retained some perverse behaviours:

"I took to retaining trophies from the girls who came to the book-shaped room: stockings, various small garments, once even a pair of shoes from a girl who had thought of staying the night. Though even now I cannot understand my motives. Nor can I understand why I began keeping a sexual diary. I began it, I remember, out of boredom and idleness; but soon it developed into a type of auto-erotic enterprise" (30-31).

Singh took certain pleasure in rejecting the woman who came across his life, "I said to a French woman, 'Do you dance?' She at once rose. It was then that out of nowhere the impulse of cruelty came to me. I said, 'I don't.' And I left" (20). It was in London during his period of education that he met Sandra, who was to be his wife later. Singh discovered "though of the city, her position in it was like my own. She had no community, no group, and had rejected her family" (53). Sandra was more a confidante for Singh and he was in need of her protection:

"I had such confidence in her rapaciousness, such confidence in her as someone who could come to no harm- a superstitious reliance on her, which was part of the strength I drew from her-that in the moment it seemed to me that to attach myself to her was to acquire that protection which she offered, to share some of her quality of being marked, a quality which ones was mine but which I had lost" (56).

It never occurred to Singh to ask her for marriage with love, "why don't you propose, you fool?" (46). It is clear that Singh felt his position elevated and secured in the presence of Sandra:

"...it was in her walk, in the bite of her speech, even in the way she ate food which she considered expensive. But how could I resist her quick delight? Her very rapaciousness attracted me. To me, drifting about the big city that had reduced me to futility, she was all that was positive. Her delight strengthened me" (54).

Singh remembers his marriage as an "absurd ceremony" (58). In fact, what Singh felt towards her was lust not love. Singh's marriage does little to order the situation, as immediately following the ceremony, he experiences a panic and loss of control and flees to a public house to drink (. 59). At hearing the news of his murdered father, Singh resorts to movement and sex, "I walked about the streets. Later I went with a prostitute" (215). Following this final chaotic movement about London, Singh simply declares, "I was ready to leave" (215). At this point, his frenzied the movements and breakdown of the self have reached their pinnacle, propelling him from London to Isabella.

Singh never found the order he was searching for in London, rather he found himself into greater disorder. He says "we talk of escaping to the simple life. But we do not mean what we say. It is from simplification such as

this that we wish to escape, to return to a more elemental complexity” (43). Upon arrival to Isabella, Singh experiences a calmness and a resettling of the chaos and frenzy of London, describing the island as “a scene of peace ...” (62). Back in Isabella, Ralph regains a solidity and order to his self. He is even able to successfully repress some initially negative reactions to his return, “this return so soon to a landscape which I thought I had put out of my life for good was a failure and a humiliation. Yet this, together with all my unease, I buried away” (60). This, however, is a short-lived calm that quickly passes over to the chaos. The cause for Isabella's lack of order is the same as the cause for Ralph's initial departure from Isabella, as the island is a place that causes Ralph to “[panic] at not being able to tear down the unreality about him to get at the hard, the concrete, where everything becomes, simple and ordinary and easy to seize” - a panic caused by his inability to grasp a solidity or order while on the island (86).

In Isabella, Singh and Sandra join a social group, the elitist set of Isabella. Even the social group, initially noted as offering a sense of order, is almost simultaneously described as “a haphazard, disordered and mixed society ... [a] fluid group” (66). Peter Nazareth in, “The Mimic Men' as a Study of Corruption”, comments on the instability of this social group, “And the 'jet set' Singh joins after his return from England is just so much more jetsam-false, unreal, living an artificial life ...”, so that Ralph's attempts at a pure and ordered life are almost immediately thwarted by his association with a “mixed,” “disordered,” and aimlessly floating (“jetsam”) social group (143).

In a further attempt to instil order, Singh builds the Roman house, “I was struck by the simplicity of the Roman house, its outward austerity, its inner, private magnificence ...” (84). The house offers simplicity and, through its distinctions between public (“outward”) and private (“inner”), an imposed distinction and ordering. These attempts, however, fail, as Ralph never does regain order, calm, or simplicity on Isabella. The destruction of Ralph's house during his housewarming party clearly marks this inability to achieve order.

As Singh's marriage disintegrates, he desperately attempts to regain his order. He, once again, resorts to an aimless sort of movement, in his attempts to regain control, “At nights [Sandra and I] would go out driving, just for the sake of motion. We drove to the airport and sat drinking in the lounge with in transit passengers, listening to the names of foreign cities” (83). Not only do they move, but they go to a site of movement and talk to the people who are on the move. Singh and Sandra shared not love but distress together and thus Singh feels “we were compatible, yet it was this very compatibility that drew her away from me” (81). The loveless marriage grew apart, dishonesty to dishonesty, unease to unease, “we had taken to sleeping in separate rooms so that the sleeplessness of the one might not disturb the other” till Singh felt disgusted towards her, “and subtly my attitude towards her changed: “The very things I had once admired in her-confidence, ambition, rightness-were what I now pitied her for...” (69). Now I was truly appalled. I wished to get away at once, to reflect, to be alone again” (58). Singh did not try to stop Sandra when she went away. Moreover, Singh knew:

“Sandra was after all in a position to leave: other relationships awaited her, other countries. I had nowhere to go; I wished to experience no new landscapes; I had cut myself off from that avidity which I still attributed to her. It was not for me to decide to leave; that decision was hers alone” (91)

His broken marriage had left him more confused and with a sense of utter failure. After the failure of his marriage, Singh decided to become a politician in order to fulfil his psychological need for order and an identity. “Only with The Mimic Men does the recognition of a national history in the landscape become necessary condition for establishing a stable identity” (Cooke 32). He also took up politics because he wanted to get a real view of himself, to rid himself of the “panic of ceasing to feel myself as a whole person” (33). His reasons behind joining politics were not to help his fellow Islanders but to satisfy his own ego and to feel himself in a position of power. As a politician, Singh does not concentrate on helping to reduce poverty or the sufferings of the people but he is obsessed with ‘naming’ everything. That showed his thirst for power and ownership, “So I went on naming; and later, I required everything-every government building, every road, every agricultural scheme - to be labelled. It reinforced that sense of ownership which overcame me...” (215). At the moment of supreme achievement in politics, Singh reverts to images of childhood to express his hopelessness, “The play was over. Exhilaration went. We could no longer draw strength from one another. It was one of those occasions when each person looks into himself and finds only weakness, sees the boy or child he was and has never ceased to be” (199-200).

Singh referred to his political activity as ‘drama’. ‘Drama’ because all his actions as a politician were only a series of experiments that he applied on the Island and the people, to satisfy his ego. It was not a real-life experience for him and he was aware that his role as a ‘colonial’ politician was meaningless, it was more of a sarcasm. Singh writes:



“Politicians are people who truly make something out of nothing. They have few concrete gifts to offer. They are not engineers or artists or makers. They are manipulators; they offer themselves as manipulators. Having no gifts to offer, they seldom know what they seek. They might say they seek power. But their definition of power is vague and unreliable” (43).

Singh realised that his sense of ‘drama’ and his pretensions did not bring any peace to the Island and the people suffered from social and economic unrest. Under such conditions, the only solution they had to stabilise the condition of the Island was the nationalisation of the sugar estate, owned by an upper-class English man, Lord Stockwell. When Singh went to persuade the Englishman, he failed and was moreover humiliated by the English ministers. They refused to take the matter seriously and treated Singh like a child. Singh, not a member of the imperial power, was made to feel his status as a politician as inferior and of a failure. Singh knew without the help from the English, he could not take any solution back to his country, thus he asked, “How can I take this message back to my people?” and Stockwell indicated clearly that he had other things to do than assisting the public relations of the colonial politician, “you can take back to your people any message you like” (224) and that was the end. The disorder and instability of Ralph's political movement, apparent almost from its inception, carry this intensity and chaos to even greater extremes. Ralph describes the situation ‘of the political group as characterized by feelings of "frenzy", "unease", "anarchy" "hysteria", "precariousness", "panic", and "drifting" (239, 246, 252, 263). This is the upheaval destruction of order and calm, and all-up-in-the-air quality of Ralph's life on the island that constantly refuses any attempts at settlement. His visit to London for negotiations presents an even greater movement than he previously exhibited. While in London, he moves around the city and has an affair with Stella, the action that he describes as possessing a sort of "Frenzy" (267, 275). This frenzy further increases during his stopover, which allows him to move through a new city, so transient and un-rooted, "as in a dream," that he describes, "my disturbance was [now] complete" (279). By this point, Ralph's self becomes disordered, chaotic, un-rooted, unstable, et cetera, to a whole new extreme. He eventually returns to Isabella, though he recognises that "there was no need for me to return ...," as the middle stage has reached such frenzy that he can no longer remain on Isabella, but must continue his movement toward the completion of his form (278). By this point, the unease feelings that Ralph initially suppress upon his arrival to Isabella have fully resurfaced, as he once again I climax, jettisoning him away from Isabella to the conclusion of the form in London, feels himself a foreigner on the island (248). Ralph's frenzy and movement eventually climax, jettisoning him away from Isabella to the conclusion of the form in London.

After his failure in politics, Singh's return to London experiences a brief period of intense movement and homelessness while searching for a place to live beyond London's city limits. During this period, Ralph moves from train station to another train station with no home at all except the movement of the trains, leading a "gypsy life" (299). Finally, he finds a room in a hotel in the suburbs of London. His hotel room is prison-like and characterless with its "regulation hotel furniture" (34). It is tawdry, "Nothing here has been fashioned with love or even skill; there is as a result nothing on which the eye rests with pleasure" (33). As nondescript and limiting as the hotel room is, though, Singh prefers it to the city beyond, “It is a relief to get back from this to the hotel. Here at least there is decorum and calm; no one insists on an impossible communication” (34), an escape from the perceived vulgarity and rabble of the metropolis. Singh the exile, the alienated man, observes of the Londoners and London beyond his hotel room:

"I do not believe that there is communication between these people any more than I believe in the hilarity of the advertisements by which they are surrounded: those irritating drawings in which the mouths of funny men are too wide open . . . those beer-mats whose circular legends I know by heart. Who comes here? A Grenadier. What does he want? A pot of beer" (35).

He also acts out his trauma of displacement in London by dreaming:

I dreamt that in this city I was being carried helplessly down a swiftly flowing river, the Thames, that sloped, and could only break my fall by guiding my feet to the concrete pillars of the bridge that suddenly spanned the river, and in my dream I felt the impact and knew that I had broken my legs and lost their use forever – but as in a dream, I say, the terrors of arithmetic disappear. (91)

As depicted, displacement was a traumatic experience for Ralph Singh and he first responded to it by “acting out” his trauma of displacement. In the following section, I elaborate how Singh “works through” his trauma. LaCapra sees “working through” of a traumatic experience as a process which starts with “acting-out”.

## 6. Working Through

“Working through” is the other possible reaction to trauma. Dori Laub writes in the arduous process of working through, “survivors beginning to remember often desire to be alone, although very much in someone’s presence”

(71). Singh, in his subsequent exile back in England at the age of forty, lives in a room in a suburban residential hotel, and avoids contact with any of his former friends, lovers, and acquaintances. Once settled in the hotel, Ralph obtains simplicity and calmness. The way of life provided by the hotel plays a significant role in this ability to obtain order, as Singh comments on, "the constriction and order of hotel life .... Order, sequence, regularity ..." (293). Through this order of the hotel, Singh develops a routine and sense of order in his life, commenting that he and the other tenants "have simplified our lives" (294, 296). In addition to the order of the hotel, Singh obtains order through his writing.

Emphasis is also frequently put on the act of testimony as being part of the "working through" process. Singh starts writing two times; first, when he is a politician. However, Singh falls in the fantasy of his retirement state. He cherishes a vision of a quiet life on an old cocoa-estate. He understands now, as he writes about it, that "it was yearning, from the peak of power, for withdrawal; it was wistful desire to undo" (43). Singh starts writing for the second time when he is living in the hotel room in London:

I thought when I began this book that it would be the labour of three or four weeks. Memories of my fluency, on *The Socialist*, in cabinet, were still fresh; the five thousand- word paper on the reorganization of the police, not a negligible document, had been the concentrated work of an evening. After eighteen months of the anaesthetizing order of life in this hotel, despair and emptiness had burnt themselves out. And it was with a delicious sense of anxiety and of being employed again that I got the hotel to give me a writing-table, set it beside the window, and composed myself to work. (242)

Thus, the act of writing, which at first is perceived by the narrator as a "substitute for what it then pleased me to call life" (244), becomes the instrument through which Singh begins "to impose order on [his] own history, [and] to abolish that disturbance [within him]" (243). As he says, "it never occurred to me that the writing of this book might have become an end in itself, that the recording of a life might become an extension of that life" (244). As he writes the book, a process of creation begins to take place, "one order, of which I form part, answering the other, which I create" (245). Eventually, the very act of writing, despite "its initial distortion, clarifies, and even becomes a process of life" (251). In other words, a process designed to organise and give meaning to life becomes life itself and thus, the basis which charts Singh's and his society's development:

And this became my aim: from the central fact of this setting, my presence in this city which I have known as student, politician and now as refugee-immigrant, to impose order on my own history, to abolish that disturbance which is what a narrative in sequence might have led me to. (243)

Writing his memoirs also makes his messy past in Isabella manageable, "sealing off such experience and activity" so as not to disturb the resolution of the form's conclusion (12). As a result, Singh explains, "... the conviction was strong that I was again in a well-organized country" (297).

One of the important features of Naipaul writing that repeated in *The Mimic Men* is the ambivalences that the protagonist shows toward Trinidad and England that demonstrates the implication of "acting out" and "working through" in the novel. Before his departure from the colony for the English metropolis, Singh infuses the world beyond the tiny island with a specialness. He is particularly fascinated by the thought of snow, "on the snow slopes of the Laurentians [in Canada], was the true, pure world" (146). His romantic, quasi-religious images of the metropolis and the world beyond Isabella assure his disappointment and eventual disillusionment on his arrival there. His memoirs convey that surprise and disillusionment; he is particularly struck, for example, by the difference between the glamorous, regal image of the BBC imparted to international listeners and the plainness of its operations and facilities:

"there in the canteen of a radio service which, when picked up in remote countries, was the very voice of metropolitan authority and romance, bringing to mind images, from the cinema and magazines, of canyons of concrete, brick and glass, motorcars in streams, lines of lights, busyness, crowded theatre foyers, the world where everything was possible; there now, at the heart of that metropolis, we sat, at a plastic-topped table, before thick cups of cooling tea and plates with yellow crumbs" (46).

In its inner sanctum, the BBC, the voice of metropolis and empire, loses its quasi-magical quality and becomes ordinary; like the radio station, the metropolis quickly loses its aura as well. The "gold of the imagination" always turns into the "lead of the reality," Singh laments. Incorporated into the routine of the metropolis, he loses any special feeling about where he is or what he is doing. In exile, with an identity divided between colony and metropolis, Singh, just as he has idealised the "real world" beyond Isabella, constructs a counterweight romance of the island world he has left behind. He falls into a reverie of his retirement on a cocoa plantation in Isabella, with its "old timber estate house", dark and shiny floors, "wide low-eaved verandas" and "cooling ferns". "Everywhere," he imagines, "the eye would have found pleasure" (32-33). In the fields, labourers "of the olden

time" work at "undemanding tasks" such as cutting down pods with "gullets, hand shaped knives" like "weapons of medieval knights"; in the "shade", "arcadian figures" stand by the "multicoloured heap of pods" (33-34). Through reverie, Singh fashions a home that is the reverse of his exile, but there is little that is factual about his cocoa plantation. The authors of *The Other Side of Paradise* provide this description of plantation work reality quite different from Singh's reverie:

But now I no longer knew what I was; ambition became confused, then faded; and I found myself longing for the certainties of my life on the island of Isabella, certainties which I had once dismissed as shipwreck. (27)

Isabella, as much as it is a site of chaos and disorder, is also the site Singh flees to from the greater disorder of London and that London, while offering respite from Isabella, does not allow itself to be read as a space of pure order, as it remains the greater disorder. The text does not offer such simple spaces; rather, it creates spaces riddled with contradiction, so that London can simultaneously be the site of respite from Isabella and the site of the greater disorder. For example, Singh's descriptions of himself on Isabella, as he at one moment describes himself as unable to obtain "intensity of emotion", only just pages later to describe the "drama and insecurity" of his political group and the ease with which the "emotion" of Isabella could resurface (38, 43, 45). As it is discussed, displacement is traumatic for Singh.

## 7. Trauma and Literature

In this section, I analyse the impact of trauma on the style of *The Mimic Men*. Non-linearity, repetition and intertextuality form three important modes of representation in the traumatic narratives in Whitehead's book, all of which are traced in *The Mimic Men*.

### 7.1 Non-linearity

Cathy Caruth her book, *Trauma, Explorations in Memory*, questions the form of narrative memory. She suggests the need for a narrative form which does not succumb to closure and coherence, but retains within itself the traces of traumatic disruption and discontinuity. In *The Mimic Men*, the narrative technique is to quote William Walsh, "dissolving and non-linear, in correspondence with the starts and swerves of the recovering memory, his instrument of self-examination" (62). The novel is divided into three parts. The chronological sequence of events begins with Singh's childhood in Isabella, among his family and school friends, and then narrates his move to England, his life in the boarding house run by Lieni, his several sexual adventures, and his eventual marriage to an English girl named Sandra. It then delineates his return to Isabella, where he becomes a successful property developer and building contractor, and his entry into politics with his friend, Browne, and the subsequent rise to power, before giving an account of the break-up of his marriage, his sudden withdrawal from his political career in Isabella to go back to England, his brief liaison with the aristocratic Stella there, and his settling down in the old boarding house (now a hotel) where he starts writing his memoirs. That is the chronological organisation of the events; yet, they follow a disordered sequence. V.S. Naipaul begins the novel in medias res. In Part One, Singh is in London, comparing his impressions of London to those he had shortly after World War II. He questions his political failure, which he sees as the result of the shortcomings of his society. He recounts the story of his university days, his marriage to Sandra, his return to Isabella, and his success in the world of business, politics and the Isabella jet set, followed by the break-up of his marriage. In Part Two, the narrator moves further back in time, to his childhood memories. In Part Three, Singh focuses on his political experiences again and then moves back to the present in London.

### 7.2 Intertextuality

As mentioned above, intertextuality is a key stylistic device of trauma fiction which is used by V.S. Naipaul in *The Mimic Men*. Whitehead suggests that "the term represents the notion that every text constructs itself as a tissue of quotations, absorbing and transforming material from other texts...Intertextuality is also used in a more specific sense to refer to the particular set of plots, characters, images or conventions which a given text may bring to mind for its readers" (89). In *The Mimic Men*, there are many things that bring to mind references from external sources. Whitehead writes:

Intertextuality does not necessarily refer to an external source of reference but can operate within a single Corpus or body of work. A writer's fiction can act in dialogue with its own precedents, whether plays, novels, poems or critical essays. In trauma fiction, this can create across an author's work a sense of endless repetition, as if the writing is haunted by an inarticulable force, which can neither be named and confronted nor passed beyond. (93)

In *The Mimic Men*, like other Naipaul's works, there are many things which bring to mind references from

Naipaul's personal life. There are also some materials that bring to mind references from Naipaul's other works. Naipaul often reworks and revises in a later text materials and elements he treated in earlier books. To this, Naipaul has remarked, "I feel that at any stage of my literary career it could have been said that the last book contained all the others" ("Two Worlds" 480). Moreover, in *The Mimic Men*, there are many things that bring to mind references from external sources. John Thieme believes that "*The Mimic Men* is his most allusive work to date. References to myth, literature and history reverberate throughout the novel; sometimes as a direct part of Singh's narrative and sometimes, rather more indirectly, the prerogative of Naipaul himself" (110).

## 8. Conclusion

As discussed in previous sections, displacement is traumatic for Ralph Singh, the protagonist of *The Mimic Men*. First, I depicted the Singh's trauma by the illness it caused; PTSD. After demonstrating that displacement is traumatic for Singh, I suggested two ways the narrator responded to his trauma. There are two very broad ways of coming to terms with trauma: "acting out" and "working through". Singh acts out his trauma by his behaviour and reactions in different stages of his life. In childhood, he dreams of India and read books about Aryans, he sees his island as a shipwreck, avoids being among people. He travels to England to find order but he sees greater shipwreck. He starts seeing prostitutes and touring London by train. He eventually marries Sandra, an English girl, for her protection and gets back to Isabella. In Isabella, he enters politics after leaving Sandra. He returns to England after the failure in his political career, resides in a hotel room and starts writing his memoirs. By writing, he starts "working through" his trauma. I also explored the impacts of trauma of displacement on the structural and formal components of *The Mimic Men*. Thus, non-linearity, repetition and intertextuality formed three important modes of representation of trauma in *The Mimic Men*.

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# Exploring the Incidence of Strategic Improvisation: Evidence from Malaysian Government Link Corporations

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Received: May 25, 2015 Accepted: June 15, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p105

URL: <http://dx.doi.org/10.5539/ass.v11n24p105>

## Abstract

In today's dynamic business environment, organizations have faced many challenges to stay abreast of changes in order to make wise decisions and best management system. This means that strategic improvisation can be one of the best ways to reconcile organizational tensions. However, the importance of strategic improvisation in the business remains unclear and research in this area is still relatively underdeveloped. To fill this gap, this research is central to explore the incidence of strategic improvisation (SI) in the context of Government Link Corporations (GLCs) in Malaysia. Specifically, this research seeks to examine the relationship of Talent Management (TM) and Entrepreneurial Orientation (EO) with the incidence of SI. Further, SI is also examined to have significant effects on GLCs performance. 281 managers from Malaysian GLCs were used as a sample of the study. The findings confirmed that TM and EO have a positive significant relationship with SI; and there is a positive significant link between SI and GLCs performance. Given the lack of studies on these relationships in previous literatures, it is believed that this research will contribute to the body of knowledge as well as the managerial implication particularly on the GLCs setting.

**Keywords:** strategic improvisation, talent management, entrepreneurial orientation and GLCs performance

## 1. Introduction

The Malaysian economy is currently confronting significant challenges. The external environmental forces are creating more intense in the business. Government link corporations (GLCs) are thus under pressure to formulate and implement the best strategies for competing successfully in a dynamic business environment with new entrants and current rivals. Due to this, GLCs are required to set substantial goal of competitiveness above other factors.

The previous study has found that competently managed GLCs, with well-crafted and executed strategies are critical for the organizations success (Singh & Ang, 1999). Currently, the government is managing GLCs effectively where GLCs attention is allocated in several goals that are vividly managed not to harm the objective of wealth maximization. This is consistent with the aims from the government at cultivating "national champions" upon whom the country's economic fortune depends on in the years to come (Lau & Tong, 2008). Therefore, the GLCs should aware of any threats and opportunities they might be possibly faced. They should be ready to improvise the business activities in the way of gaining and sustaining their competitive advantages.

GLCs practices in Malaysia may not be similar as applies by governments in other countries. Malaysian GLCs are considered as hybrid organizations, as they have to achieve financial returns, which should become more efficient and cost effective, whilst fulfilling their social responsibilities (Norhayati & Siti Nabiha, 2009). With regard to this, the GLCs have to find ways to optimize the best practice of entrepreneurial orientation (EO) and talent management (TM) which is believed to be able to demonstrate the significant effect to strategic improvisation (SI) and firm performance.

This study aims to examine the incidence of strategic improvisation (SI) in Government Link Corporations in Malaysia. Specifically, this research seeks to examine the relationship of EO and TM with the incidence of SI. From our best knowledge, no one has sought to prove the significant link between TM, EO and SI in GLCs perspective. Further, SI is also examined to have the significant effect to GLCs performance.

## 2. Literature Review and Hypotheses

### 2.1 Strategic Improvisation

In a certain scenario, when customer preferences and demands change, the firm performance can also increase dramatically if it was addressed swiftly (Darwina, 2011). It is expected that most companies need to apply emergent approaches or improvise in some form or another due to the need to adapt to rapid change of customer and market demand, market opportunities, technological changes or competitive reactions in an industry as well as to enhance performance (Darwina, 2011; Mintzberg & Waters, 1985). Thus, the GLCs need to have imperial strategic improvisation to remain in fit with their environment, or otherwise risk misfits that might harm their firm performance. Improvisation can potentially generate value to the company in terms of prudent change management, adjustability to adopt best practices as well as adding flexibility and innovation (Kamoche, Cunha, & Cunha, 2002; Leybourne, 2006). In addition, improvisation can determine how individual and groups in organizations cope with and coordinate the conflicting demands of existing time perspectives (Crossan, Cunha, Vera, & Cunha, 2005); learn and adapt under time pressures (Vera & Crossan, 2005); and remain flexible under turbulent environments (Cunha, Cunha, & Kamoche, 1999). With this strategic improvisational activity, the best management practice is expected to be more valuable and effective.

The definition of strategic improvisation can be summarized as an action taken in real time situations where it encompasses a high amount of spontaneity and creativity. This study pertinently focuses on management staff who involves in strategic decision making and have the ability to formulate (plan) and execute (implement) actions simultaneously when pursuing improvisational activities in organization. Crossan (1997) posits that lessons from improvisational activities can help in providing better and greater innovative solutions as well as bringing quicker cycle times.

### 2.2 Talent Management and Strategic Improvisation

The talent of the leadership within organizations is a break factor in the achievement of strategic goals and the incremental value of the best managers. Prior to that, many organizations are now realizing that attracting, growing and retaining top management talent is a strategic issue. Gagne (2000) and Goleman (2006) suggest that talented or professional people are able to perform an activity to a degree that places their attainment approximately the upper ten percent of their peers who are actively participate in that field. Due to this demand, organizations need to ensure that talent management is one of the elements that need to be highlighted in gaining and sustaining organizations' distinctive competency.

Most organizations define 'talent' as potential, or high potentials; while in other organizations, talent means an individual who has the ability to reach a certain level in the hierarchy (Blass, 2007). As defined by Tansley (2011), a high potential employee is someone with the ability to have high engagement and aspiration and succeeds in a more senior and more critical position. It should also have a critical skill set which has become challenging to be acquired in the labour market. The critical skill set, however, can be obtained through several mechanisms as suggested by the research findings on two Malaysian GLCs; Tenaga Nasional Berhad and Malaysia Airline System (MPC, 2009). On the job training, mentoring, coaching and continuous professional assessments complemented by clear and timely communication are some examples of highlighted mechanisms in effecting talent management practices (Bux, Ahmad, & Othman, 2009).

According to Tansley (2011), successful performance can also be linked to other characteristics most frequently associated with talented individuals, such as: high levels of expertise; leadership behaviours; creativity; and initiative stemming from a "can do attitude" based on self-belief. Previous researches evidently proved that those characteristics are said to have a significant effect on improvisational behavior in organizations (Crossan & Sorenti, 1997; Cunha, Cunha, & Kamoche, 1999; Orlikowski, 1996). For example, in the GLCs, organizations in this sector may see talented individuals as those who can demonstrate better respond on improvisational activities; thus it leads us to believe that talent management could be a factor in aiding improvisation to ultimately occur. However, no study has proved the significant relationship between these two elements. With regards to this, it is hypothesized as follows:

H1: Talent Management (TM) has positive significant relationship with Strategic Improvisation

### 2.3 Entrepreneurial Orientation and Strategic Improvisation

Entrepreneur Orientation (EO) is a key way to develop distinctive competencies such as product or service innovation (Hitt & Ireland, 1986). EO depicts the specific entrepreneurial characteristics, which consist of decision-making approaches, and practices (Lumpkin & Dess, 1996). Numerous researchers have established that EO is a mixture of the three dimensions namely innovativeness, proactiveness, and risk taking (e.g., Covin

& Slevin, 1989, 1990, 1991; Knight, 1997; Miller, 1983; Namen & Slevin, 1993; Wiklund, 1999; Zahra & Covin, 1995; Zahra, 1993).

The innovativeness dimensions of entrepreneurial orientation reflect the proclivity to involve new products, services, or technology development (Lumpkin & Dess, 1996). Realistically, innovative companies obligate a larger skills and knowledge-based as compared to others in building distinctive competencies (Zahra & Garvis, 2000); and therefore suggest the improvisational activity to be occurred. According to the resource-based view theory, innovative competencies could be a foundation of competitive advantage as they are entrenched in the organizational setting and cannot be explicitly articulated and imitated (Barney, 1991; Hunt & Arnett, 2006; Hunt & Morgan, 1996; Nonaka, 1994). By highlighting commitment to innovative products or processes, organizations can easily improvise their business activities (Kyriakopoulos, 2011; Cunha & Kamoche (2003; Kamoche, 2001) and could dramatically enhance their competitiveness (Lumpkin & Dess, 1996; Miller, 1983; Zahra & Garvis, 2000).

The second element of EO is proactiveness. Limited research has appeared to evidently illustrate proactiveness and performance. However, previous studies on a proactive personality scale appear to have the potential to provide further insight into the association between personality trait and entrepreneurship (Crant, 1996). In this conception, proactive entrepreneurial personality is believed to lead to proactive firms, which can distinguish themselves from their competitors. This proactive element would thus be able to contribute positively on the incidence of improvisational activities in organizations. However, very limited studies have proved this relationship. In the case of Malaysia, the study by Darwina and Syarifah (2014) has shown a positive significant link between proactiveness and improvisation.

The third element of EO is risk taking orientation which specifies an inclination to involve resources in tasks where the result may possibly ambiguous (Wiklund & Shepherd, 2005; Zahra & Covin, 1995). Organizations with risk-taking orientation, for instance, could grab market opportunities to achieve higher growth and profitability. However, grabbing market opportunities are not as simple as what the organizations plan. Therefore it is believed that the higher the risk-taking propensity, the greater the incidence of organizational improvisation (Darwina, 2011) and success (Frese, Brantjes, & Hoorn, 2002; Lumpkin & Dess, 1996).

The inadequate prior empirical studies have made that the study on the link between EO and improvisation concept is significant to shedding the light whether this factor has a significant influence on strategic improvisation. Therefore it is hypothesized as below:

H2: Entrepreneurial Orientation (EO) has positive significant relationship with Strategic Improvisation.

#### *2.4 Strategic Improvisation and Firm Performance*

Firm performance has long been viewed as the principal dependent variable in strategic management research (Gilley et al., 2002). Researchers frequently consider firm performance when investigating such organizational phenomena as structure, strategy and planning (Ottesen & Grønhaug, 2004). Undeniably, a primary investigation of strategy research is that it tries to examine the relationship between various organizational characteristics and performance and survival (Meyer, 1991; Gilley et al., 2002). Previous researches have studied and linked variables such as strategic planning and strategic making process (Rogers et al., 1999; Brews and Hunt, 1999; Slotegraaf et al., 2004), business-level or corporate-level strategy (Porter, 1980; Miller, 1988; Liao, 2005), organizational structure and capabilities (Burns & Stalker, 1961; Miller, 1988; O'Regan & Ghobadian, 2004), and choice of environmental domains (Bourgeois, 1985; Miller, 1992; Garget et al., 2003) to various performance measures.

Previous research has highlighted significant attention on the importance of improvisation in individual and group outcomes (Kamoche et al., 2003) to the detriment of focus on organizational outcomes (firm performance). For instance, Moorman and Miner (1998), Akgun and Lynn (2002) and Vera and Crossan (2005) study new product development as an improvisational outcome; Leybourne and Sadler-Smith (2006) investigates internal and external project outcomes; Souchon and Hughes (2007) focus on export performance as an outcome of export improvisation; while Hmieleski and Corbett (2008) examine venture performance as an outcome of entrepreneurial improvisational behaviour. This relationship between improvisation and organizational outcomes has appeared to be dubious in extant research and lacks empirical examination (see Vera & Crossan, 2005; Hmieleski & Corbett, 2008). Interestingly, only one study by Darwina (2011) has sought to trace and proved the association between organizational improvisation and firm performance in technology-based companies.

By noting this deficiency in the investigation of strategic improvisation in GLCs, this research seeks to provide additional contributions to existing theory and practitioners. For instance, by executing strategic improvisation as

a corporate learning tool, managers should be able to instantaneously access creativity in the moment and in a spontaneous way under pressure settings. As a result, the company can be able to stimulate better decision-making processes and the best performance outcomes.

To date, the study of the improvisation and organizational performance relationship is still scarce and yet, there is little empirical research reveals the significant relationship. This emphasizes the need to develop a model, which is specifically based upon an empirical investigation of this relationship (improvisation-firm performance link). Thus, it is hypothesized that:

H3: Strategic Improvisation (SI) has positive significant relationship with Firm Performance.

### 3. Analyses and Findings

The study was conducted amongst a disproportionate random sample of GLCs in Malaysia. GLCs are defined as companies who necessitate a chief commercial objective while at the same time it has a direct control by the Malaysian Government. The respondents of this study were 281 employees from various hierarchical levels, including the top level, middle level and operational level. It is based on the authority of making decisions of each level. The research is conducted using the quantitative method. Instruments of each variable were adapted from previous studies. For the strategic improvisation factor, this research adapted items from Darwina (2011). In total, seven items were adapted, covering factors of creativity and spontaneity. The talent management factor items were adopted from Pruis (1989). The Five Key Principle for Talent that consists of seven items. For Entrepreneurial Orientation (EO), the item measures consist of nine and it was adopted from Covin and Slevin (1989); whereas firm performance item measures was adopted from Dess and Robinson (1984), and Gupta and Govindarajan (1984). The total nine items were adopted for firm performance.

Data analysis for this study is conducted via the usage of statistical package SPSS 19.0. The results clearly showed that all data are normally distributed. Factor analysis conducted resulted in the Kaiser Meyer Olkin (KMO) measure of 0.870. To establish reliability, the data is tested for consistency and stability. Table 1 presents means, standard deviations, Pearson's intercorrelations and construct reliabilities for the different scales. For this study, a scale of minimum 0.60 is used for the Cronbach alpha value (Coakes & Steed, 2003). The results reveal acceptable construct reliability with all value exceeding 0.60. Collinearity diagnostics performed before regression showed a low possibility of multicollinearity. Intercorrelation coefficients provide a glimpse into the results of statistical tests to be carried out to test the hypotheses.

Table 1. Means, standard deviations, correlations (pearson), construct reliability

Variables	Means	SD	FP	EO	TM	SI
FP	3.813	0.773	(0.95)			
EO	3.487	0.585	.589**	(0.87)		
TM	3.761	0.784	.525**	.512**	(0.95)	
SI	3.861	0.612	.700**	.615**	.619**	(0.90)

Note: \*\*. Correlation is significant at the 0.01 level (2-tailed); FP = Firm Performance; EO = Entrepreneurial Orientation; TM = Talent Management; SI = Strategic Improvisation

The results on Hypothesis 1 and Hypothesis 2 were tested using a standard multiple regression analysis. The result of the relationship between all the independent variables (TM and EO) and incidence of improvisation is illustrated in Table 2. The result shows a total of 50.4% of the variance in improvisation is explained by two factors (TM and EO), which is significant as indicated by the F-value of 141.11. When examining the link individually, this finding illustrates the positive and significant link between TM and Strategic Improvisation ( $\beta=0.412$ ;  $p<0.01$ ); as well as the positive and significant relationship between EO and Strategic Improvisation ( $\beta=0.404$ ,  $p<0.01$ ). The details of the analyses results are as depicted in Table 2.

Table 2. Regression analysis for hypothesis 1 and hypothesis 2

TM, EO and SI	Variables	Hypothesis	Improvisation ( $\beta$ )
Independent Variables	TM	H1	0.412**
	EO	H2	0.404**
	$R^2$		0.504
Summary statistics	F		141.11
	P		0.000

Notes: \* $p<0.05$ ; \*\*0.01; EO=Entrepreneurial Orientation; TM=Talent Management; SI=Strategic Improvisation



The result on Hypothesis 3 was tested using a linear regression analysis. The result of the relationship between the incidence of Strategic Improvisation and firm performance is illustrated in Table 3. The result shows a total of 59.0% of the variance in performance is explained by Strategic Improvisation which is significant and positive associations as indicated by the F-value of 148.91. The details of the analysis results are as depicted in Table 3.

Table 3. Regression analysis for hypothesis 3

SI AND GLCs Performance	Variables	Hypothesis	Performance ( $\beta$ )
Independent Variables	SI	H3	0.590**
Summary statistics	$R^2$		0.348
	$F$		148.91
	$P$		0.000

Notes: \* $p < 0.05$ ; \*\* $0.01$

FP = Firm Performance; SI = Strategic Improvisation

#### 4. Discussions and Conclusion

For Hypothesis 1, the finding of the regression analysis showed that talent management has a positive significant relationship with strategic improvisation. Therefore, this result proved that in the GLCs, the greater the talent management practice contributes to the stronger the incidence of strategic improvisation. In other point, it can be said that the Malaysia GLCs may see talented individuals as those who can demonstrate better respond on improvisational activities. This study is consistent with previous researches by Crossan & Sorenti (2002), Cunha, Cunha & Kamoche (1999) and Orlikowski & Hofman (1997).

Hypothesis 2 was to examine the effect of entrepreneurial orientation on the likelihood of strategic improvisational activities in Malaysia GLCs. The result of this study found that EO has a positive significant relationship with strategic improvisation. This finding showed that EO is one of the elements to enhance the GLCs' improvisation; and thus it promotes the significant link that the organizations need to be highlighted for achieving and sustaining distinctive competency in the fast changing environment.

As for the result of Hypothesis 3, the study confirmed that strategic improvisation has a positive significant relationship with performance. In other words, SI practice significantly contributes to the performance of the GLCs. This particular result validates the findings of previous studies on the improvisation-performance link (see Darwina (2011); Hmieleski and Corbett (2008); Souchon and Hughes (2007); Leybourne and Sadler-Smith (2006); Vera and Crossan (2005); Kamoche et al. (2003); Akgun and Lynn (2002); and Moorman and Miner (1998)). With regards to this, improvisation is believed to enable managers to continually learning while planning and acting spontaneously and creatively to consistently move products and services out of the door (Brown & Eisenhardt, 1997), and thus lead to enhance firm performance.

In conclusion, this study reinforces the importance of SI practice in the Malaysian GLCs which specifically focus on TM and EO as significant contributing elements to SI; as well as the SI-GLCs performance relationships. By practicing improvisation, GLCs could gain a better understanding on the importance of TM and EO among individuals and groups in organizations; and how they coordinate with improvisational activities and at the same time gain the best firm performance. It is hoped that the findings can be used for further investigation in future research to add knowledge in the area of strategic improvisation (SI); as well as to contribute ideas to the practitioners that SI is one of the best practices for their organization. For the direction of future research, it is suggested that other contributing elements of improvisation should be investigated, such as the effect under time pressures in coping the demands (Crossan, Cunha, Vera, & Cunha, 2005); and the study on management of change (Leybourne, 2008) as moderating effect of SI-Firm relationship.

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# Firm Resources, Corporate Governance and the Disclosure of Intangible Assets

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Received: April 13, 2015 Accepted: June 10, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p113

URL: <http://dx.doi.org/10.5539/ass.v11n24p113>

## Abstract

The paper investigates the determinants of intangible asset disclosure with reference to the interaction of heterogeneous asset and governance characteristics of firms. Specifically, it considers R&D intensity as a measure of asset heterogeneity and multiple proxies for the effectiveness of the firm's corporate governance mechanisms and structures of accountability. Intellectual capital attributes are applied as the measure of disclosure quality and as the signalling mechanism through which management are able to inform markets of their competitive advantage. By applying the resource based view of the firm and signalling theory, the paper extends prior research on the determinants of intangibles disclosure through an analytical framework that examines the interaction of firm resources, corporate governance and intangibles disclosure. The theoretical framework combines the RBV of the firm in confirming intangibles as a necessary feature of disclosing firms' asset base and signalling as the means with which management disclose their competitive advantage. The results of the analysis indicate a positive relationship between R&D intensity, complexity and scope of activity and the presence of quality signalling responses. Also, the separation of the roles of chair and non-executive director, complemented by experienced non-executive directors promote quality signalling through the disclosure of intellectual capital attributes. These findings support the view that corporate governance mechanisms are only effective when applied in combination. Governance mechanisms bring about transparency and accountability through disclosure of these intangibles despite the potential competitive losses. The lack of proprietary costs that might otherwise restrict disclosure might be attributed to competitors' inability to imitate such intellectual capital resources and therefore their inability to duplicate such signals. The findings confirm the interaction between heterogeneous assets and governance mechanisms in the disclosure of intangibles as signalling mechanisms for management.

**Keywords:** intangibles, intellectual capital, disclosure, corporate governance, research and development, competitive advantage, signalling and resource based view

## 1. Introduction

### 1.1 Background

The paper explains the disclosure of intangibles in corporate balance sheets in terms of the interaction of the possession of unique resources and the structure of governance and accountability. Such an approach is potentially fruitful as the firm's senior management are simultaneously concerned with the development of strategies likely to result in competitive advantage and their accountability for the resources deployed to sustain such advantage. Put another way, if managers invest in resources that create competitive advantage they have an incentive to signal such investments where competitors might find such signals difficult to replicate, but may nonetheless not do so where their activities are poorly monitored by capital market participants. Mere possession of resources therefore may not be a sufficient condition for their disclosure in the annual report. Although intangible assets and the role of creative workers are becoming increasingly important in the world economy and at individual firm level associated with the creation of competitive advantage (Lev, 2001), there has been no systematic investigation of the link between resource attributes, governance and the disclosure of intangible assets.

### *1.2 Intangible Assets – a Key Source of Competitive Advantage*

Previous literature has examined the separate effects of resource attribute on intangible asset disclosure (Archambault & Archambault, 2003; Citron, Holden, Selim, & Oehlcke, 2005), the role of such disclosures as signals (Bozzolan, Favotto, & Ricceri, 2003; Garcia-Meca, Parra, Martinez, & Larran, 2005) and the role of governance factors such as board composition on disclosure (Haniffa & Cooke, 2002; Lufti, 1989, Malone, Fries, & Jones, 1993). Taken together the results of these and other studies suggest that investment in intangible resource and their disclosure through transparent governance structures are potential mechanisms to secure competitive advantage and its corollary of superior returns to shareholders. However, previous studies have not theorised such a relationship nor presented fully integrated tests of the relationships between them. Understanding of these relationships is important, since, for an increasing number of industries, and more especially in the service and innovative industries intangibles have become a key source of competitive advantage (Marr, Gupta, Pike, & Roos, 2003). In order to contribute to this literature therefore, and to enhance our understanding of the determinants of intangible disclosures, a theoretical framework is suggested linking disclosure with the impacts of the firm's asset base, specifically R&D intensity, and the effectiveness of the firm's corporate governance mechanisms and structures of accountability. The theoretical relationships are discussed in section 1.3 below and results from prior empirical surveys assessed. The paper then examines the determinants of disclosures concerning intangible assets and the joint and separate impact of the firm's asset base and governance structure. These propositions are tested using a cross-sectional analysis of a large sample of disclosures made by UK firms and the results are reported in section 3 below. Section 4 discusses the findings and draws the conclusions.

### *1.3 Firm Resources, Corporate Governance and Disclosure: An Analytical Framework*

For the purposes of the analysis below, it is assumed that managers are motivated to achieve competitive advantage, either for the benefit of themselves, or of shareholders and their chosen disclosure strategy is governed by this attitude. Therefore, disclosures of intangibles are a function of the firm's competitive strategy and the requirement to signal the presence of assets likely to create competitive advantage to capital markets. Sustained competitive advantage (SCA) is defined as delivering sustainable above-normal returns (Peteraf, 1993) and is likely to be achieved as a result of the possession of unique assets. According to the theory of competitive heterogeneity such assets might be tangible, but possessed by one firm and not another as a result of monopolistic market conditions. In contrast, according to the resource-based view of the firm and in particular, the knowledge-based view of the firm (Grant, 1996); sources of SCA are located in assets that cannot be purchased in a market. The resource-based view (RBV) explains the competitive advantage of organisations in terms of bundles of resources (Amit & Schoemaker, 1993; Rumelt, 1984), which are valuable, rare, inimitable and non-substitutable (VRIN) (Barney, 1991). Super-normal profits consistent with the organisational aspects of SCA (Barney, 1991) arise from firm specific assets, managerial economies of scope, and organisational mechanisms of co-ordination (Penrose, 1959; Teece, 1980; Coff, 1997).<sup>1</sup> As the firm invests in assets such as specialised production facilities, trade secrets and engineering experience (Teece, Pisano & Sheun, 1997) over time (Dierickx & Cool, 1989), tacit knowledge is embedded in technically complex routines. According to the knowledge-based view, SCA arises from such routines (Spender, 1989; Nonaka, 1991). Such assets typically have intangible characteristics and accordingly the RBV approach is adopted here as a tool for analysing intangible disclosures, typically linked to firm value creation.

Intangible, as opposed to merely heterogeneous resources may therefore be more likely to be disclosed to the capital market as signalling devices. The monopolistic possession of tangible resources, for example a telephone cable network, is likely to be well known by competitors, investors and regulators and is therefore less likely to be the subject of further elaboration in the annual report. Conversely, the creation of RBV intangibles, for example investment in organisational and technical processes, is likely to be less well understood by capital market monitors, creating a potential moral hazard and information asymmetry problem, the logical solution to which is enhanced accounting disclosure. Moral hazard and information asymmetry problems associated with intangible assets may be exacerbated by the mendacious but unverified assertions of inferior firms to have made equivalent investments to their competitors, thereby staking a claim to inequitable shares in superior profits. More fundamentally, where such investments have occurred, in the absence of disclosure there is no alternative mechanism for the capital market to adjust returns to reflect the abnormal profits associated with SCA. There is thus a quality signalling rationale (Akerlof, 1970; Spence, 1973; Healy & Palepu, 1993) for disclosure of investments in intangibles. Toms (2002) uses this approach, with reference to environmental disclosures, to link quality signalling using accounting disclosure to the RBV. Other empirical studies have investigated the signalling properties of intangible disclosure and found that high tech industries investing heavily in intangibles

aim to promote competitive advantage through disclosure of R&D and technological development processes (Bozzolan et al., 2003), or to promote the confidence of investors and customers through such disclosures (Garcia-Meca et al., 2005). A possible extension to these empirical studies can be developed by following Toms (2002) who argues that governance characteristics will mediate the level of disclosure, so that full disclosure will occur where monitoring mechanisms are more effective. Theoretical approaches to corporate governance, for example in new institutional economics argue that an effective board will reduce managerial opportunism and diffuse agency conflicts (Leftwich, Watts, & Zimmerman, 1981; Fama & Jensen, 1983).

		<i>Strength of Governance Structure</i>	
		<b>Less effective</b>	<b>More effective</b>
<i>Organisational Resource Base</i>	<b>Replicable</b>	<i>Quadrant 1</i>	<i>Quadrant 2</i>
		Low disclosure	Low disclosure
	<b>Non-replicable</b>	<i>Quadrant 3</i>	<i>Quadrant 4</i>
		Moderate disclosure	High disclosure

Figure 1. Resources, governance characteristics and disclosure: an analytical framework

Figure 1 combines the RBV, signalling and governance elements of these theories to explain the extent of intangible disclosures. On the vertical axis, the resource base of the firm is represented by a continuum, which at one extreme consists of explicit and easily replicable resources and at the other consists of highly tacit and very difficult to replicate intellectual and similar intangible assets. On the horizontal axis, the signalling incentive is represented by a continuum, which at either extreme consists of strong governance mechanisms likely to lead to full disclosure and at the other weak mechanisms likely to lead to opacity. The framework forms the basis for developing testable hypotheses to explain the disclosure of intangible assets. In quadrant one, where the asset base is replicable, for example because it consists of tangible assets that can be purchased in the market, and governance mechanisms are of limited effectiveness, the lowest disclosure outcome is predicted. In quadrant 2, where the asset base is replicable and governance mechanisms are more effective, disclosure is the same as in quadrant 1, since notwithstanding more effective governance, the asset base does not dictate truthful or more extensive disclosure because the firm has no intangible assets related to SCA. In quadrant 3, where the asset base is non-replicable, and therefore consisting of non-market purchasable intangibles, but the governance mechanisms are less effective, disclosure will reach intermediate levels. In quadrant 4, where the asset base is non-replicable and the governance mechanisms are more effective, disclosure will be at its highest, because although possessing similar asset bases as quadrant 3 firms, governance mechanisms are likely to overcome managerial reticence about disclosure, induced for example by concerns about the competitive costs of the disclosures. The purpose of the paper is to test the implied separate and joint relationships in Figure 1. Before doing so, it is important to consider suitable measures so that the resource base, governance attributes and disclosure attributes can be quantified. Prior studies have focused on disclosure and the vertical or horizontal continua in Figure 1. It is therefore important to examine these studies before deriving suitable proxies for testing. Disclosure measures are common to all studies and are discussed separately in section 2.1 below. Relatively little explicit use has been made of RBV in accounting research in general and with reference to intangible disclosures in particular. At the same time, there is a wide range of attributes that might be used to quantify the resource bases of firms measured on the vertical continuum. Taking an overview of the literature these can be generalised into three categories, size related, scope related and complexity related.

#### *1.4 Hypotheses and Research Design*

Abeysekera & Guthrie (2005) found that companies with the largest market capitalisation tend to lead the way insofar as the voluntary reporting of IC is concerned; Bozzolan et al. (2003), Garcia-Meca et al. (2005), Garcia-Meca and Martinez (2005) and Guthrie, Petty and Ricceri (2006) confirmed size as a measure of firms' resource base that may lead to the signalling of intangibles. Size appears to be an important explanatory variable whether measured by total assets, sales (Firth, 1979), or market value (Hossain, Tan, & Adams, 1994; Lang & Lundholm, 1993). At the one end of the continuum, Ahmed & Nicholls (1994) argue that larger firms are more likely to have the resources and expertise necessary for the coalition, production and publication of more informative annual reports; similarly, Firth (1979) relates larger firms with the ability to meet the collecting and dissemination costs related to such activities. At the other end of the continuum, smaller firms may restrict full

disclosure due to competitive costs attributable to larger companies within their industries (Hossain & Taylor, 2007). Prior empirical research finds a positive association between the scope and complexity of the organisation's activities and disclosure. Scope of activity is measured in terms of SIC codes, which is strongly associated with disclosure (Archambault & Archambault, 2003; Citron et al., 2005), which earlier studies explain in terms of resource set (Zarzeski, 1996) or increased diversification (Verrecchia, 1983). Operating in several diverse areas or sectors requires the management of a greater amount of information as such firms may increase disclosure in response to the high complexity of operations (Raffournier, 1995; Depoers, 2000). Multiple listing may be indicative of the scope and complexity of organisations activities. Multiple listing may lead to diffusion in ownership concentration as foreign investors acquire equity, agency costs may accumulate as the likelihood of conflicts of interests between shareholders and management increase. Furthermore, due to distance, language and cultural barriers, foreign shareholders are likely to experience higher levels of information asymmetry consistent with the suggestions of Cooke (1998). In this way, multiple listing increases the information disclosed and thus promotes corporate transparency and accountability. Firms with intangible resources have more incentive to disclose IC in order to reduce agency costs (Fama & Jensen, 1983) related to monitoring. Several empirical studies (Singhvi & Desai, 1971; Firth, 1979; Cooke, 1992; Hossain et al., 1994; Giner, 1997) have found that firms listed on several stock exchanges provide enhanced disclosures.

Meanwhile Nixon's (1997) conclusions suggest management views disclosure of R&D expenditure as vital to capital market valuation, suggesting the potential to link the RBV with the signalling approach. Voluntary disclosure of intellectual capital (VDIC) could signal the quality of R&D activities with higher expected returns particularly where the costs of the signal are negatively correlated with the quality (Seaton & Walker, 1997). In a study on voluntary disclosure in R&D industries, Jones (2007) finds that firms disclose a variety of information about all stages of R&D activity. Generally, disclosures of early and late stage R&D activity reduce information asymmetry as to how R&D will translate into sales. Such signals enable the market to identify firm resources that sustain competitive advantage. A significant limitation on any likely relationship between signalling incentives and disclosure is the notion of competitive cost. Competition may restrict full disclosure of intellectual capital (IC) as disclosure may lead to a potential unfavourable change in future earnings (Dye, 1985; Guo, Lev, & Zhou, 2004). For this reason, the framework in Figure 1 allows for a trade-off between the competitive organisation of the industry, which varies on the vertical axis with the degree of replicability, and the incentives for signalling that too must be reflected in empirical tests. As with the vertical axis of Figure 1, the implied relationships on the horizontal axis have a number of possible measures. The ones that have attracted the most attention in the prior empirical literature are measures of board structure, incentive and involvement, (for example, Haniffa & Cooke, 2002; Lufti, 1989; Malone et al., 1993) and these are the ones that are also given prominence in this study.

Using Malaysian data, Haniffa and Cooke (2002) found a significant and negative relationship between the presence of a non-executive chair and voluntary disclosure; other board related governance variables including proportion of independent directors and role duality, were insignificant. They concluded that their findings contradict agency theory, indicating the possibility that non-executives must have incentives to keep information private. Forker (1992) argues for example that a dominant personality in a dual role poses a threat to monitoring quality and is detrimental to the quality of disclosure. Eng and Mak (2003) found that a higher proportion of independent non-executive directors to be associated with reduced voluntary disclosure. Haniffa and Cooke (2005) also suggest that non-executives lack the experience and knowledge to promote voluntary disclosure on corporate social responsibility issues. In a study on unlisted companies in the UK, Lufti (1989) reported an insignificant result on the influence of independent directors on voluntary disclosure. Similarly, in the US Malone et al. (1993), reported an insignificant result between mandatory and voluntary disclosure and proportion of outside directors. Reasons for negative effects of non-executive directors more generally may include stifling strategic actions (Goodstein, Gautam, & Boeker, 1994), excessive monitoring (Baysinger & Butler, 1985), lack of business knowledge (Patton & Baker, 1987) and lack of real independence (Demb & Neubauer, 1992). On the other hand, in line with the predictions of agency theory, Adams and Hossain (1998) and Chen and Jaggi (2000) found empirical evidence of a positive relation between proportion of independent directors and disclosure in Hong Kong. The disclosure attributes differed in these studies, which have used different country contexts and differing levels of mandatory disclosure. In view of the mixed findings in these studies, the relationships would certainly be worth retesting using British data.

For reasons of enhanced executive director power or poor monitoring of their activities, high executive remuneration may be associated with low VDIC. Lufti (1989) identified share option schemes as encouraging voluntary disclosure in UK unlisted companies. However, due to the opportunistic behaviour of directors, agency



costs may be incurred unless controlled by adequate governance mechanisms (Evans, Evans, & Loh, 2002). Where the objectives of shareholders and directors are aligned as illustrated by Conyon, Peck and Sadler (2000), directors' compensation may serve as a mechanism to bring about better governance (Ooghe & De Langhe, 2002) and therefore more accountability and transparency through improved disclosure. Few studies have examined the relationship between intangibles' disclosure and role duality in the chief executive officer and chair. On the one hand, role duality indicates the absence of separation of decision control and decision management (Fama & Jensen, 1983), on the other, segregation of duties would indicate enhanced control and governance. Finkelstein and D'Aveni (1994) and Gul and Leung (2004) argue that a concentration of decision-making power may mitigate the independence of the board and reduce its effectiveness in its monitoring role. This result is similar to that reported by Forker (1992) in his study of dominant personality and quality of disclosure. Although Gul and Leung (2004) suggest role duality is associated with lower levels of disclosure, this relationship is found to be weaker in the presence of experienced non-executive directors. Similarly, in a study on European Biotechnology companies, Cerbioni and Parbonetti (2007) identified that chief executive officer duality suppresses the disclosure of forward-looking IC information; however, board structure was found to enhance disclosure. Given these prior studies, it appears that good governance structures may mitigate the agency costs that may be attributed to role duality. According to agency theory, combined functions can significantly impair the board's most important functions of monitoring, disciplining and compensating senior managers (Barako, Hancock, & Izan, 2006); as such, role duality may remove the necessary checks and balances over management behaviour (Blackburn, 1994). The mitigating effect of non-executive directors on this role duality is indicative of the effect of good governance on disclosure levels. Thus, although there has been considerable empirical work examining the relationship between governance and disclosure, it has not been integrated theoretically or tested empirically in conjunction with aspects of the firm's resource base. Tests examining resource attributes have also yielded separate but interesting results. The next section will set out a methodology and model for examining the combined impact of the factors discussed in the review above.

## 2. Methodology

### 2.1 Data and Method

Internal Structural Capital SC (8)	External Relational Capital RC (8)	Human Capital HC (7)
1. Patents	9. Brands	17. Know-how
2. Copyrights	10. Customers	18. Training
3. Trademarks	11. Customer loyalty	19. Level of education
4. Management philosophy	12. Distribution channels	20. Vocational qualifications
5. Corporate culture	13. Business collaborations	21. Staff development
6. Management processes	14. Licensing agreements	22. Entrepreneurial spirit
7. Information systems	15. Favourable contracts	23. Innovativeness
8. Financial relations	16. Franchising agreements	

Figure 2. Intangible attributes  
Source: Adapted from Guthrie and Petty (2000)

Sample firms were selected from the FTSE All Share Index for the year 2003/2004 in the *Financial Times*. Banks, financial, insurance, life assurance, mining, oil and gas, real estate, speciality and other finance and investment and property industries were excluded and every second and third company was selected from the remaining population and their annual reports obtained. This yielded a sample of 460 usable annual reports. A content analysis of the annual reports of sample firms was conducted by adapting the methodologies of Guthrie, Petty, Ferrier and Well (1999), Bozzolan et al. (2003) and Milne and Adler (1999). Following the approach applied by Beattie, McInnes and Fearnley (2004, 32), this research splits sentences into text units which are related to intangible attributes. Other visual forms of communication that have been found to provide an immediate and effective means of corporate disclosure (Beattie & Jones 2001; Beattie & Thompson 2006; Davison & Skerratt, 2007) are included. In summary, a voluntary disclosure of an intangible attribute was defined as any text unit, illustration, diagram or graphical presentation that explained the attribute in any part of

the annual report. All such disclosures are excluded from mandatory disclosure in the Companies Act 1989, EC Directives (Fourth and Seventh), Statement of Standard Accounting Practice, FRS (7, 10 and 11) and the disclosure rules issued by the LSE. It is also necessary to identify a priori intangible attributes. The most common framework originates from Sveiby (1997, 12) and was developed by Guthrie (2001, 35). Guthrie and Petty (2000), Brennan (2001), April, Bosma and Delgon (2003), Bozzolan et al., (2003) and Guthrie et al., (2004) all applied this framework. For the purposes of comparability with these studies, twenty-three intangible attributes were identified as representative and are illustrated in Figure 2. Milne and Adler (1999) suggest that as the number of content categories increases, the potential for coding errors increases. Conversely, as the number of categories decreases, the likelihood of random agreement in coding decisions increases. Bearing in mind the importance of comparison and replicability, the research defines the 23 intangible attributes as illustrated in Figure 2 as representative of an equilibrium point that ensures limited coding errors and limited random agreement. Agreement levels are assisted by a structured analysis of intangible components following the framework developed by Sveiby (1997) and adapted by Guthrie and Petty (2000). As Figure 2 illustrates, intangibles are accordingly analysed into internal structures (organisational capital), external structures (customer/relational capital) and employee competence (human capital).

## 2.2 Research Design

To ascertain that the scoring was consistent and accurate according to the chosen scoring procedure a verification test was carried out by three researchers from the field in a similar process as that conducted by Guthrie and Petty (2000). Twenty annual reports were randomly selected, scored, compared and correlated. These annual reports were verified and agreed by three independent persons. Explanatory notes on each IC attribute and examples of specific IC disclosures in practice were discussed before the start of the analysis consistent with Bozzolan et al. (2003). The ANOVA test for variance illustrated significantly similar objectivity after 20 annual reports had been coded. The results of the 20 companies pre-tested provided significant evidence of consistency in the coding process. This consistency is important to ensure that each IC attribute in any annual report, is selected if it meets the criteria. The 23 attributes were used to compile a disclosure score (DISC) which is used as a variable in the empirical model below.

## 2.3 Model Tested

The model tested examines the relationship between SCA, governance attributes and disclosure as suggested by Figure 1. The empirical form of the model and a summary of defined variables are set out below. R&D, SIZE and IND measure the position of the firm on the vertical axis of Figure 1 and the remaining variables the position on the horizontal axis, according to research intensity, scale and scope/complexity respectively. R&D is defined as the ratio of research and development expenditure to sales revenues, as obtained from *Datastream*. SIZE is defined as net sales or revenues representing gross sales and other operating revenue less discounts, returns and allowances and is taken from *DataStream*. IND is a grouping variable ordered by SIC code to reflect broadly increasing complexity, beginning with basic (BASIC), which is used as the reference group, engineering (ENG), electrical (ELEC), pharmaceutical (PHAR), retailers (RET), computer (COMP) and services (SERV). The classification of the sample into these groups is detailed in Figure 3.

SIC Code		Industry	# of Obs
202	Basic	Forestry and paper	2
1589		Food producers and processors	18
1596		Beverages	6
1600		Tobacco	2
4521		Construction and bldg materials.	34
			62
2410	Chem	Chemicals	12
2463		Personal care and h'hold prods	5
5212		Household goods and textiles	14
			31
2840	Eng	Steel and other	2
2710		Engineering and machinery	24
3430		Automobiles and parts	10
3530		Aerospace and Defence	7
			43
3002	Elec	Info Tech Hardware	17

3210		Electronic and electrical equip't	16
4013		Electricity	3
4100		Utilities (Ex-electricity	8
5147		Diversified industries	6
			50
2441	Phar	Pharmaceuticals and biotech	14
			14
5211	Ret	General retailers	35
5211		Food and drug retailers	6
			41
7222	Comp	Software and computer services	31
7412		Support services	59
7420		Telecommunication services	12
7440		Media and entertainment	39
			141
6340	Serv	Transport	22
8511		Health	14
9210		Leisure and hotels	25
			61

Figure 3. Sample classification by industry and SIC code

Multiple listing (MLTL) represents companies listed on more than one stock exchange and is obtained from the annual report. NONEXEC is the ratio of non-executive directors to total directors and is obtained from the annual report, as is EXECREM, the ratio of executive remuneration to market value. DUALITY combines the dual roles of chief executive officer and company chair; this variable is measured by a dichotomous variable and is obtained from the annual report, as is CNED that represents a non-executive chair.

$$DISC = \beta_0 + \beta_1 R\&D + \beta_2 SIZE + \beta_3 IND + \beta_4 MLTL + \beta_5 NONEXEC + \beta_6 EXECREM + \beta_7 DUALITY + \beta_8 CNED + \varepsilon \quad (1)$$

where:  $\beta_0$  : intercept;  
 $\beta_1 - \beta_8$  : coefficient of slope parameters;  
 $\varepsilon$  : error term.

## 2.4 Research Design

Descriptive statistics for variables included in equations (1) are set out in Table 1. Panel A of Table 1 presents descriptive statistics and correlation matrix for continuous variables; correlations above the diagonal illustrate the cross-correlations between non-continuous governance variables. Panel B of Table 1 presents descriptive statistics on the determinants of disclosure by industry and Panel C of Table 1 by governance dummy variable. The statistics in Table 1 Panel A indicate significant cross-correlations in the governance variables, suggesting that these might be substitutes for modelling purposes, and similarly between industry and R&D intensity.

## 3. Results

### 3.1 Descriptive Statistics

Table 1 Panel A. Descriptive statistics and correlation matrix for continuous variables

Variable	Mean	Standard deviation	A	B	C	D	E	F	G	H
A DISC	0.561	0.118	1					0.211***	-0.011	-0.118
B SIZE	5.811	2.013	0.278***	1				0.449***	0.005	-0.101
C R&D	0.044	0.240	0.085*	-0.234***	1			0.188***	0.026	-0.019
D NONEXEC	0.490	0.177	0.052	0.013	0.044	1		0.089	-0.194***	0.366***
E EXCREM	1864.480	2321.618	0.236***	0.502***	-0.065	0.145***	1	0.186***	-0.155**	0.018
F MLTL	0.200	0.401	0.215***	0.481***	-0.008	-0.037	0.331***	1	0.094	-0.158**
G DUALITY	0.112	0.315							1	-0.298***
H CNED	0.522	0.500								1

The descriptive statistics indicate that larger companies are more likely to list on multiple exchanges; in addition, these firms generally compensate their executives with higher rates of pay. It is therefore not surprising that an association exists between disclosure and executive remuneration and disclosure and multiple listing due to the correlation attributed to the size variable.

In contrast, R&D is found to be more concentrated in relatively smaller firms, given that this ratio decreases with increasing size as represented by turnover. The significant cross-correlations in the governance variables indicate that executive officers receive significantly more compensation in the presence of experienced non-executive directors. Whether non-executives are motivated by the need to match or better market rates or whether this is an indication of ineffective governance measures remains to be investigated. Nevertheless, the statistics indicate that multiple listed companies are more likely to provide better remuneration to their directors; however, given that multiple listed firms are generally large companies, it may be that this association is attributed to size. The Spearman co-efficients which are used for the grouping variables in Table 1 Panel A, reflect the significant association between multiple listing and size in the positive association of this listing status with intangibles disclosure and with executive remuneration. The relationship between R&D intensity and multiple listing is not reflected in the Pearson co-efficients, which are used for continuous variables, particularly as the relationship with size is negative. It appears therefore that R&D is more closely associated with multiple listing than it is with size. There is therefore an expectation that smaller multiple listed companies are associated with R&D intensity. Experienced non-executive directors support the segregation of decision-making and decision-management, preferring to spread decision making-power; as such, the dual role of chair and chief executive officer is not often found where these governance mechanisms exist. Furthermore, as this role duality suppresses executive remuneration, and as experienced non-executive directors appear to be aligned to directors interests in as far as compensation is concerned, it may be expected that experienced non-executive directors may not favour the appointments of a combined chair and chief executive. Of additional interest is the favourable interaction between experienced non-executive directors and the appointment of a chair who is a non-executive director that may be attributed to the alignment of non-executive agendas. However, it is more likely that non-executive chairs favour boards that have a significant number of experienced non-executive directors. Nevertheless, such non-executive chairs are not common amongst multiple listed companies nor are they found in firms in which a dual role exists between the chair and the chief executive.

Table 1 Panel B. Descriptive statistics by industry

Industry Group	R&D	SIZE	EXCREM	NONEXEC	DUALITY	CNED	MLTL
<b>Mean</b>							
BASIC	0.003	6.481	0.490	2292.469	0.065	0.629	0.210
CHEM	0.015	5.936	0.544	2154.764	0.080	0.600	0.280
ENG	0.017	6.529	0.436	1526.328	0.186	0.558	0.256
ELEC	0.096	5.777	0.496	1620.832	0.100	0.380	0.300
PHAR	0.708	5.126	0.518	1629.219	0.000	0.615	0.538
RET	0.006	6.043	0.497	1694.411	0.170	0.426	0.106
COMP	0.025	5.231	0.493	1993.988	0.106	0.504	0.142
SERV	0.007	5.915	0.483	1618.296	0.121	0.569	0.172
<b>Standard Dev</b>							
BASIC	0.007	1.749	0.147	1787.529	0.248	0.487	0.410
CHEM	0.020	1.930	0.196	3101.887	0.277	0.500	0.458
ENG	0.017	1.979	0.210	1335.894	0.394	0.502	0.441
ELEC	0.178	2.447	0.230	2725.804	0.303	0.490	0.463
PHAR	1.187	3.032	0.263	1791.161	0.000	0.506	0.519
RET	0.018	1.934	0.145	1343.355	0.380	0.500	0.312
COMP	0.064	1.855	0.149	2895.665	0.309	0.502	0.350
SERV	0.018	1.729	0.182	1733.180	0.329	0.500	0.381

Panel B of Table 1 indicates the variation in descriptive statistics by industry. The results provide further support that R&D intensity may be a substitute for industry group given that BASIC industries are the least R&D intensive and PHAR industries highly R&D intensive. The results support the premise that R&D intensive firms disclose more intangibles; although these firms are generally smaller they are nevertheless multiple listed. Governance mechanisms ensure that an acceptable number of experienced non-executive directors are appointed

in these firms and that executives are adequately compensated. Although such firms as those found in PHAR industries support the existence of a non-executive chair, none of these companies is chaired by their chief executive. In contrast, firms in BASIC industries are very large and are less likely to list on an additional exchange.

Table 1 Panel C. Descriptive statistics by governance dummy variable

Variable	DUALITY	CNED
<b>Mean</b>		
DISC	0.558	0.547
SIZE	5.986	5.578
NONEXEC	0.366	0.549
EXCREM	1848.740	1721.993
<b>Standard deviation</b>		
DISC	0.130	0.118
SIZE	2.700	1.806
NONEXEC	0.230	0.122
EXCREM	4268.706	1625.473

Notes: \*\*\*  $p$ -value <0.01; \*\*  $p$ -value <0.05; \*  $p$ -value <0.10; Pearson's coefficients reported for pairs of continuous variables and Spearman for pairings involving dichotomous variables.

Moreover, these firms generally have less well-paid executives; this may be consistent with the existence of the highest concentration of experienced non-executives and highest number of non-executive chairs for any industry. These relationships are generally reflected in industries of similar R&D intensity. BASIC industries are associated with RET and SERV industries whereas the characteristics of PHAR industries are found in ELEC and COMP industries. In Panel C of Table 1, the results illustrate that duality in the chair and chief executive promotes intangibles disclosure, accountability and transparency marginally more than the duality in the non-executive chair. Firms that appoint a dual chair and chief executive officer are larger than those appointing a non-executive chair; these firms employ less experienced non-executive directors as a result it appears that executives in these firms receive slightly less compensation. These relationships are borne in mind for the purpose of specifying and reporting the results of the inferential models below.

### 3.2 Regression Analysis

This section reports the results of the relation between disclosure, heterogeneous firm resources and governance characteristics. Table 2 presents the results of the inferential models; Models 1 to 7 present the results using non-parametric quantile regression (QREG), since ordinary least squares (OLS) model residuals demonstrated non-normal characteristics. Models 8 and 9 report results for selected OLS specifications using heteroscedasticity adjusted standard errors, as these demonstrate normal characteristics and are therefore presented in Table 2 for reference and comparison.

Table 2. Model (1) regression results

Model	1	2	3	4	5	6	7	8	9
Dependent variable	DISC	DISC	DISC	DISC	DISC	DISC	DISC	DISC	DISC
Independent variables									
CONSTANT	0.564*** (12.52)	0.452*** (19.14)	0.319*** (9.00)	0.320*** (9.47)	0.304*** (7.04)	0.566*** (11.61)	0.310*** (8.78)	0.346*** (14.50)	0.352*** (12.04)
R&D	0.177 (0.78)	0.079** (2.49)					0.013 (0.67)	0.030* (1.71)	
MLTL			0.017 (1.00)	0.017 (1.03)	0.016 (0.75)		0.010 (0.56)		0.012 (0.09)
NONEXEC			0.059* (1.68)	0.059* (1.72)	0.035 (0.86)	0.059 (1.33)	0.062* (1.85)		0.034 (1.17)
EXCREM			0.000 (1.33)	0.000 (0.95)	0.000 (1.25)	0.000 (0.62)	0.000 (0.88)		0.000 (1.07)
DUALITY			0.009 (0.48)		0.022 (0.98)	0.009 (0.38)	0.006 (0.32)		-0.001 (-0.03)
CNED			-0.022* (-1.72)	-0.022* (-1.79)		-0.020 (-1.24)	-0.023* (-1.75)		0.018* (-1.72)

SIZE	0.026*** (8.15)	0.018*** (4.75)	0.018*** (4.80)	0.019*** (5.20)	0.019*** (4.29)	0.021*** (5.03)	0.020*** (5.26)	0.024*** (10.06)	0.021*** (6.61)
CHEM	-0.269*** (-5.80)					-0.261*** (-5.36)			
ENG	-0.245*** (-5.64)		0.019 (0.63)	0.015 (0.51)	0.033 (0.90)	-0.242*** (-5.35)	0.018 (0.59)	-0.012 (-0.52)	-0.005 (-0.23)
ELEC	-0.131*** (-3.10)		0.145*** (4.95)	0.133*** (4.70)	0.155*** (4.41)	-0.122*** (2.76)	0.138*** (4.68)	0.109*** (4.35)	0.110*** (4.40)
PHARM			0.251*** (6.20)	0.249*** (6.34)	0.264*** (5.34)		0.249*** (5.62)	0.211*** (7.97)	0.231*** (9.91)
RETAIL	-0.248*** (-5.74)		0.018 (0.60)	0.016 (0.55)	0.026 (0.74)	-0.242*** (-5.46)	0.020 (0.66)	0.004 (0.15)	0.004 (0.16)
COMP	-0.101** (-2.49)		0.160*** (6.15)	0.159*** (6.37)	0.166*** (5.25)	-0.100** (-2.46)	0.159*** (6.06)	0.128*** (6.28)	0.127*** (6.27)
SERV	-0.115*** (-2.70)		0.145*** (5.08)	0.141*** (5.15)	0.155*** (4.46)	-0.115*** (2.65)	0.145*** (5.04)	0.115*** (5.17)	0.118*** (5.40)
Shapiro-Wilk p-value								0.607	0.614
F								34.64***	27.36***
Adj R <sup>2</sup>	0.224	0.046	0.232	0.232	0.229	0.231	0.233	0.367	0.373
N	439	439	439	439	439	439	439	439	439

Notes:

Numbers in parentheses are t-statistics based on White's (1980) heteroscedasticity consistent estimation matrix. Significance levels (one-tailed test except intercept terms and industry dummies):

\*\*\*  $p < .01$ ; \*\*  $p < .05$ ; \*  $p < .10$

Table 2 reports Shapiro-Wilk test results for residual normality in these models. The interaction between intangibles disclosure and the heterogeneous asset base is examined in Models 1, 2 and 8; that with governance mechanisms in Models 3, 4, 5, 6 and 9; and the combined interaction between disclosure, heterogeneous firm resources and governance characteristics in Model 7. Consistent with Abeysekera & Guthrie (2005) and Garcia-Meca & Martinez (2005), the results of all inferential models confirm that large firms' that possess imitable and unique intangible assets are able to signal SCA. In Model 2, although providing a lower explanatory factor in the QREG model relative to other inferential models, the results of Model 8, the OLS model do indicate a positive influence of R&D activities on intangibles disclosure. The interaction between the scope and complexity of the organisation's activities and disclosure are examined by both the industry dummies and the investment in R&D. Models 1 and 2 indicate that R&D intensity may be a substitute for industry complexity and may as suggested by Nixon (1997), be linked to the RBV with the signalling approach. Firms in such industries as PHARM, ELEC and COMP may be prejudiced by the current reporting regime that is unable to account for the complex nature of intangible resources. To increase and sustain value to shareholders, the onus is on management to signal SCA through intangibles disclosure; such signals enhance transparency and accountability, reduce information asymmetry and are not likely to accrue proprietary costs. The lack of competitive losses associated with such disclosures has been attributed to the unique nature of intangibles.

Model 3 to 7 and Model 9 present the interaction between the heterogeneous asset base and the firm's corporate governance mechanisms and structures of accountability. Industry dummies control for the existence of intangibles resources as represented by complexity in operations; governance mechanisms, experienced non-executive directors and the separation of the dual role of non-executive chair promote intangibles disclosure as presented by the results of Models 3, 4 and 7. However, the influence of experienced non-executive directors is limited when the dual role is not in place as illustrated by Model 5. Model 4 indicates little variation in disclosure whether firms combine the roles of chief executive officer and chair or not; other governance measures effect on disclosure however is influenced by the presence or absence of complimentary structures. Models 3, 4 and 7 illustrate this finding; within firms that are multiple listed, non-executive chairs and experienced non-executive directors are significantly more influential in promoting intangibles disclosure than in companies with one listing status. The increase in reporting requirements due to multiple listing appears evident here, however where these multiple listed companies do not appoint a non-executive chair, experienced non-executive directors become ineffective in ensuring accountability and transparency through disclosure. The results support the analysis based on the descriptive statistic reported in section 3.1 above as it appears governance mechanisms are more effective when working in cooperation.

Individually, other board related governance variables including role duality in the chief executive officer and chair, multiple listing and executive remuneration are insignificant in influencing the signalling of intangibles as illustrated by Model 3 to 7 and by Model 9. The results illustrate that experienced non-executive directors promote transparency and accountability, although this relationship is found to be weak as illustrated by Model 9. The effectiveness of this role is dependent on the chair being an executive director and further that firms have supporting governance structures modelled on multiple listed companies. Such structures where roles and responsibilities are separated allow experienced non-executive directors to compliment the existing governance mechanisms in enhancing VDIC particularly where the resource base is non-replicable. Thus, the absence of the separation of decision control and decision management (Fama & Jensen, 1983) leads to a lack of transparency and accountability. Furthermore, a concentration of decision-making power may mitigate the independence of the board and reduce its effectiveness in its monitoring role. The results are consistent with the findings of Cerbioni and Parbonetti (2007) who identified that chief executive officer duality suppresses the disclosure of forward-looking IC information. Directors' compensation has been associated with reduced agency costs; however, the results do not provide evidence for this hypothesis. The theoretical basis for linking executive remuneration with intangible disclosure levels has not been confirmed in contrast to Lufti (1989), where executive remuneration is insignificant in explaining the variation in intangibles disclosure. Directors' compensation is therefore insufficient in influencing management into better governance (Ooghe & De Langhe, 2002).

Although some prior studies have confirmed multiple listing as significant in disclosure studies, the results indicate that VDIC may be independent of the number of listings a firm may have. As multiple listing may expand both the diversity and the operating sectors of a firm, it may promote transparency and accountability in reducing asymmetric information. Furthermore, additional disclosures may be required to account for the increase in the complexity of operations. Nevertheless, the results of all models indicate that the incremental reporting requirements and additional governance measures attributed to a foreign listing may not have a direct impact on the signalling of intangibles. Overall, the QREG models report results that are consistent with those of the robust OLS models.

#### 4. Discussion

This paper examines the determinants of the disclosure of intangibles, specifically the interaction of heterogeneous assets and governance mechanisms on disclosure. As a measure of disclosure, each firm was allocated a disclosure score based on 23 IC attributes. The regression results show that size as a measure of scope, R&D intensity as a measure of complexity of operating activities, and the separation of the roles of chair and non-executive director, complimented by the existence of experienced non-executive directors as governance mechanisms, support the analytical and theoretical framework as illustrated in Figure 1. Industry dummy variables illustrate the variation in the signalling of intangibles with increasing complexity of operations and R&D intensity. Overall, the results are consistent with the separate effects of resource attributes on the disclosure of intangible assets (Archambault & Archambault, 2003; Citron et al., 2005) and with the role of such disclosures as signals (Bozzolan et al., 2003; Garcia-Meca et al., 2005). The results suggest that the influence of board composition on disclosure supports the hypothesis that governance mechanisms enhance accountability and transparency (Haniffa & Cooke, 2002; Lufti, 1989; Malone et al., 1993).

The results indicate that investment in intangible resources and their disclosure through transparent governance structures are potential mechanisms to secure competitive advantage. These governance structures have been seen to be more effective when not in conflict as such the mere presence of intangible resources may not be a sufficient condition for their disclosure in the annual report. Governance mechanisms that encourage the separation of dual roles and support the appointment of experienced non-executive directors promote transparency and accountability.

Industry dummies and R&D intensity illustrate that those technological and innovative industries, that possess valuable, rare, inimitable and non-substitutable assets, are able to sustain their competitive advantage through intangibles disclosure (Barney, 1991). These intangible assets are found in firms operating in highly complex and R&D intensive industries that may be prejudiced by the current reporting practice that lacks adequate procedures to identify, organise and manage investment in intangibles such as R&D development costs. These firms have been found to be highly technological and innovative and therefore linked to non-manufacturing and/or service industries. Other characteristics that have been attributed to these firms include being IA intensive, having economies of scale, having minimal or zero marginal cost as most services are outsourced. The results indicate that PHARM, ELEC and COMP are industries that fall under this category.

The current paper is the first to study intangibles disclosure by examining the interaction of firm resources, corporate governance and intangibles disclosure within a RBV and signalling theoretical framework. Effective corporate governance mechanisms enhance transparency and accountability for firms undertaking highly complex operations. This is especially so for firms that possess VRIN intangibles, assets that are not easily imitated and as such do not accrue proprietary costs on disclosure. There may be a potential benefit in future research on temporal links between IC value drivers and IC performance; future research may also investigate how disclosure of SCA influences the market and financial risk attributed to firms.

### Acknowledgements

I am indebted to Professor S. Toms, my PhD supervisor and mentor, for useful comments, criticisms and suggestions on an earlier draft.

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### Note

Note 1. Investment in strategic human resource assets (Mueller, 1996; Wright et al., 1994) is a sufficient but not a necessary condition for realized super-normal profits, since the employment of such assets simultaneously leads to the creation of internal rent appropriation possibilities.

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# The Communication of a Religiousness Ritual of *Toraja* Ethnic South Sulawesi Indonesia through *Ma'Badong* Inheritance Media

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Received: April 21, 2015 Accepted: May 11, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p129

URL: <http://dx.doi.org/10.5539/ass.v11n24p129>

## Abstract

*Ma'badong* inheritance media, beside as *Toraja's* media in expressing their grief when there was a family member, kinfolk, neighbour, or a society member had passed away, but also had a function as an perpetuation of *Toraja's* society culture's value, because in fact *Ma'badong* inheritance media was not only utilized by the *Toraja's* society members as the *Toraja's* germinal, but also was utilized by *Toraja's* people who lived out of *Toraja's* region. *Ma'badong* became very popular because it was a last offices completeness as the main precept for *Aluk Todolok's* followers (native religion) within *Toraja's* society. It meant, even *Toraja's* society lived out of *Toraja's* area, however if there was its society member passed away, *Ma'badong* would still done as a togetherness form and a dedication expression from the living until died. Thus, the function of *Ma'badong* which was done by *Toraja's* people who lived out of the area would be fold, thus beside as a last office completeness, also as a culture unifier and perpetuation by *Toraja's* people.

**Keywords:** religious ritual communication, *Toraja* ethnic, *Ma'badong*

## 1. Introduction

*Ma'badong* (Note 1) was a dance which was followed by a grief song. The dance and song contained of grief rhyme where was done in the *Toraja's* last offices. *Ma'badong* dancing was done in group by making a big circle that was followed by a regular movement. The purpose of *Ma'badong* dancing was to give an admiration for them who passed away by revealing the goodness that was done when the dead was still alive. *Pa'badong* wore uniform, commonly in black and wore black sarong or *Toraja's* costume. In *Ma'badong*, all parts of *Pa'badong* members' body was also moved, such as moved the head to the front and back, the shoulder going forward-backward, both of the arm was swung together to the front and back, hand in hand, when sometimes the foot was kicked to the front and back by substitution. Based on that highlight, it could be firmed that the form of communication in the message delivering was compounding between verbal and nonverbal communication.

*Ma'badong* was done in the last offices moment on a wide field, it was in the middle of *Lantang* (Note 2) *Pa'badong* wore uniform, commonly black and wore a black sarong or *Toraja's* costume. The number of the dancers could reach until hundreds of people, because *Ma'badong* was opened for people who intended to extend their condolences, became a guest of the last offices who intended to participate *Ma'badong* would be allowed to participate by wearing free costume.

## 2. *Ma'badong* Procession

A large circle was made when *Ma'badong* for a moment narrowed by moving forward the *Pa'badong's* members, then again moving backward, escalating the circle and rotate each other so that they could turns their position, however they would not move among the other *Pa'badong* who were in the right and left side. The song rhyme which followed the *Ma'badong* dancing was the *Pa'badong* song, without the music offbeat. The played song was in *Toraja* language, in the form of rhyme (*Kadong Badong*) contained of the life history or life journey of the person who passed away, started from the newborn until died. Beside the life history rhyme, *Ma'badong* also contained with pray, in order that the death spirit could be accepted, saved and given the best place in the grave.

Commonly the *Ma'badong* activity was going on three days and three nights, and during the moment of the dead person's family continuously accepting guests from whether close family, close friends, or society members who intended to extend the condolences. Indeed for *Toraja's* people, if there was their family member who passed

away, the corpse would not directly be graved but commonly they waited for the family connections that would come from the far resident. Therefore, commonly the *Toraja's* last offices was going on three days, however sometimes there were families who held the last offices that was going on five and seven days, or in the other words *Ma'badong* was going on in the variety of time appropriated with the *Pa'badong* pretension and the family's (Note 3) agreement.

In the past, the last offices performance in *Tana Toraja* was done only by raja and noble's generations, and the high social status families that were people who had a lot of wealth. In other words, *Ma'badong* activity was done only by the rich society as the coordinator, however *Pa'badong* itself was a family and public society in which voluntarily intended to pray to the dead person. Nowadays, *Ma'badong* could be done by all classes. Commonly *Pa'badong* was the native *Toraja* who lived in *Toraja* for long time and was strongly knew their culture, so that they would not face any difficulty in singing the *Ma'badong* song rhyme. Besides, because of the last offices was still commonly held, it caused the *Toraja's* society was not insufficient and could do *Ma'badong* activities well and fluently.

Related to *Ma'badong* activity, the writer even met some *Toraja's* socialite, for example was Simon Petrus, 63 years old, who worked as Culture Science lecturer in the University of Paulus Christian Indonesia, Makassar. In South Sulawesi, he knew as the *Toraja's* Socialite, *Toraja's* Culture Observer and *Ma'badong* performer of inheritance media show. Simon, his close nickname, said that *Toraja's* society was also knew internationally, beside because of the nature beauty it was also caused by their culture seemed to be unique, original, and natural, as the result that the inheritance media show was still used, moreover it could be considered to be parts of *Toraja's* society. For example, there were some dances called as *Ma'badong*, *Passailong*, *Pa'dondi*, *Sengo'*, *Pa'katiak*, *Ma'gellu* and *Pa'barrung*, all of them were still exist and developed in the society because it was supported by the supporter society (their communal society). It could be exist because the society who had an inheritance media was experiencing the benefit particularly in the togetherness spirit where it can be formed as a togetherness, mutual cooperation, and good relationship. And among the *Toraja's* inheritance media which was still exist *Ma'badong* was an activity that was held almost every time.

In the activity implementation of *Ma'badong* it might not be held individually but in togetherness. Beside *Ma'badong*, in the *Toraja's* last offices it was commonly begun with the recognition of the condolences family, a stripe water buffalo (*bonga*), water buffalo which will be slaughtered. There was an activity called as "*mapasilaga tedong*" (fought water buffalo, then would be slaughtered as the spirit's deliver to the heaven), the chest procession to the available place, coin strewing in order to be carried by the ceremony guests, and the slaughtered animal burning that would be given to the families, guests, and the societies, including performing other rituals.

As was explained that nowadays *Ma'badong* activity that was done by *Toraja's* society, had a role as a completeness that might not be missed in the *Toraja's* society last offices procession, it meant that *Ma'badong* was only done in the last offices, indeed there was almost all of *Toraja's* society could participate in holding *Ma'badong* ritual. In the *Ma'badong* there was a leader who was called as *Indo'Badong*. Before *Ma'badong* was begun, a ceremony preparation was commonly done, where all the condolences family members decided whoever would be *Pa'badong* for the last offices whether from the family members, family connections, colleagues, neighbors, or others. When the last offices were going on, the selected people went to the given place. The *Pa'badong* members stood and waited for the other participants to occupy their each position and status then *Indo'Badong* gave a sign to start their dance.

In the beginning of *Ma'badong*, the *Pa'badong* members sang four *Badong* songs continuously appropriated with the function, that were *Badong Pakilala* (advice), *Badong Umbating* (mourning), *Badong Ma'palao* (procession), and *Badong Pasakke* (prosperity or blessing). After that, continued by the *Pa'badong* members who prepared the pray and life history songs. When the time of *Ma'badong* activity was over, while the *Badong* rhyme, pray, and life history songs had not finished yet, the *Pa'badong* members would stop for a moment simultaneously and they went back to *Lantang* to take a rest, then they would continue the *Ma'badong* ritual in order to finish the uncompleted parts. This way was going on, so that the dance and *Pa'badong* song finished and the last offices had seemed to be done.

### 3. *Ma'badong* as the Religion Ceremony Completeness

In the *Toraja's* society, they believed the native religion that was called *Aluk Todolok* (Note 4). This native religion was believed as the guaranties element of the whole nature everlasting included the society. *Alok Todolok* was believed to be able to assure the harmony, balance, the concord or reconciliation. Therefore, if there was a disaster, war, disease, business failure, that could organized as plant disease attack, fire, inharmonic among

society, society trouble and the like, then it could be determined that all the incidents were caused by an infraction of *Aluk* (religion). Therefore, for *Toraja's* society in that effort to avoid any infraction of *Aluk*, it was needed to hold a religion ritual, where the inheritance media show was done as the completeness of *Toraja's* native religion ceremony. Thus, the characteristic of inheritance media in the *Toraja's* native religion was the functional it meant that it could be used only when they kept *Rambu Solok* (Note 5) ceremony (last offices) that were series of the *Toraja's* native religion implementation that was called as *Aluk Todolok*.

In the *Tana Toraja* custom, the society believed that after death there would be a 'world. That 'world' was an eternity place where the forefathers were got on together. And it was used as a rest place. *Toraja's* society called it as *Puya* (Note 6), where located in the south of *Tana Toraja*. In this *Puya*, the dead spirit would transform, be a roam spirit (*Bombo*), an as high as God spirit (*To Mebali Puang*), or guardian spirit (*Deata*). *Toraja's* society believed that the transformation form depended on the perfection of the *Rambu Solo* ceremony procession. Therefore, *Rambu Solo* was also as perfecting last offices. In addition, *Rambu Solo* had become an obligation for the left family, because only by *Rambu Solo*, the dead spirit could reach perfection in *Puya*. Therefore the left family would make a maximum effort in order to hold *Rambu Solo* ceremony. But then, it was needed not little cost by a family in holding *Rambu Solo*. Therefore, *Toraja's* funeral ceremony mostly held within months to years after the death.

*Ma'badong* was an inheritance media show which had a sacred and functional characteristic, meant that it could not be done any time, but it was only done at the time *Toraja's* funeral ceremony (as explained in the previous chapter that in the past there was only noble who was able to hold *Ma'badong* activity, but now even they were not a noble, if they had ability to hold *Rambu Solok* ceremony which consisted of *Ma'badong* activity). If the *Ma'badong* activity was done toward society whom not a noble, actually it could be explained that *Ma'badong* as a show and medium to entertain them whom grieving, or as a symbol that the dead one was *Toraja's* society.

There were strata or caste in *Toraja's* society that influenced the society growth and *Toraja's* society culture. Moreover, strata were not only applied to humans, but also to the water buffaloes. There was water buffaloes with the same weight but had different price. The price of water buffaloes with the high strata was probably to reach Rp. 100.000.000, while the water buffalo with the low strata just Rp. 5000.000. Water buffalo with the highest strata was called *Tedong Bonga* (Note 7). In the funeral ceremony which was called as *Rambu Solok*, there must provided *Tedong Bonga*, the number was not limited but at least there was one. However, in viewing the high and low caste of person who passed away, it might not only be seen from the number of slaughtered *Tedong Bonga*, because even there was a noble generation but if the financial ability was limited then it would be enough by one or two water buffaloes, on the contrary even the dead person was not from high enough caste but had a good financial ability, it was permitted to slaughter illimitable *Tedong Bonga* as the capability.

#### 4. Reasons in Holding a Great Cost Funeral Ceremony

*Tana Toraja's* society believed that *Rambu Solo* would perfect someone's death. Therefore, they had a hunch that someone who passed away and was not holding *Rambu Solo* ceremony yet, the dead person was believed not passed away yet. The dead person would be treated as a sick person or in a weak condition. That person who was believed did not pass away yet, also would be treated as a life human by the family members. Like the person was rested on the bed if went to sleep, offered food and drink, and asked to tell a story and cracked jokes as usual, as when that person was still alive. This treatment was done to the dead person by all family members, even the surrounding neighbors.

*Aluk Todolo* belief had a precept about a relationship of human (alive) with a dead person, meant if there was a new death and the funeral was not holding a ceremony yet, so the dead person was believed only as a resting one or in sick condition that was commonly called as *Tomakula'*. As long as in this condition the relationship among the life humans was in the usual condition, where *Tomakula'* was needed as an alive human because in the daily condition provided by food and drink that was laid on the special plate and cup for *Tomakula'*.

Simon as the informant when the interview was done further explained that the *Toraja's* society's reason in holding custom ceremony of a death perfecting, aimed to respect and accompany the dead spirit to the spirit world that was back to eternity with the *Toraja's* forefathers in the eternity rest place. In order to face and prepare the *Toraja's* society last offices, it was commonly begun by activities related to the preparation of that custom ceremony. Introducing activities were done before holding the ceremony, they were family meeting, ceremony cabin making, ceremony tools providing, and ceremony offering providing. After all the beginning ceremony, then there would be held the real ceremony as the arrangement of *Aluk Todolo* belief. A *Toraja's* funeral ceremony had a wide meaning and it was needed a wealth sacrificial in the high number. Therefore, it caused a funeral ceremony was able to be held after weeks, months, even years since the death. The last offices

postponement aimed to let the left family collected enough money in order to cover the funeral cost. *Toraja's* tribe believed that a death was not only something which happened suddenly, but also was a step of processes to reach *Puya*. In the time of waiting, the corpse was wrapped with cloths then saved under *Tongkonan*. A dead spirit was believed still alive in that village until the funeral ceremony had done, then the spirit would have a journey to *Puya*. A great and expensive (Note 8) sacrifice within *Toraja's* funeral ceremony was based on four aspects they were:

The first was religious reason. *Toraja's* people believed that the sacrifice of the slaughtered water buffalo could save the dead person. The sins that had done in the world could be cleared by slaughtering as many as possible water buffaloes, where the meat was ate by many people, including they who was ever maltreated, angered, or cruelled when the dead person was alive. When eating the water buffalo's meat so their sins would vanished. *Toraja's* society followed a hereditary belief that until now believed that everything had a soul in this world, even human, would had everlasting life even the body had dead. Moreover, *Toraja's* society faced the dead person by keep giving eat, drink, even there were something given when providing meal. It indicated that they believed as if the dead person was still alive and needed to be fulfilled all the need of eating and drinking even they had gone. Therefore, *Toraja's* people considered that the corpse of the dead person had to be venerated.

Grief was a condition where people who grieved would feel an affliction caused by a losing incident of the valuable person and would tend to follow the believable system in facing the last offices incident. Thus, they made hard effort in order to hold ceremony or praying rituals in order to calm themselves down, entertain, and become a spiritual advice related to the loss feeling was they experienced.

The second was loving reason to the parents or family connection. For *Toraja's* people, a death concept was meant that there was no greater losing than the death of the beloved persons such as, parents, siblings, and the spouse. Therefore, a death was a permanent farewell symbol with the beloved persons. This death caused individual experienced pain whether in social, emotional, or psychological because of the closeness with the dead person, as the result when losing the beloved person, it had to be faced by sacrificing the wealth in order to gratify the beloved one even the one had gone. Therefore, how poor the *Toraja's* people were, if their parents or family members had passed away, they would had a hard struggle in order to provide or sacrifice some the best water buffaloes for them. It was a love form to the family members or parents. Thus, a child wished by slaughtering water buffaloes, his dead parents would get the best rest place in the grave and released from any difficulties.

The third was prestige reason. In the *Toraja's* belief more power more water buffaloes had to slaughter. The slaughtered water buffalo was placed in line on the large field so that it could be seen by people. Placing the water buffaloes in line aimed to wait the owner who was still in the "rest time" (the dead person). *Toraja's* tribe believed that a spirit needed water buffalo in order to do a journey and more water buffaloes were slaughtered it would be quicker for the dead person to reach heaven. Slaughtering tens of water buffaloes and hundreds of pigs was the funeral ceremony climax which also indicated a stratification sign. More water buffaloes were slaughtered indicating that the dead person was devoting to the parents or the dead family. This was a self esteem symbol which was had by *Toraja's* people. Therefore, there were sons of *Toraja's* tribe felt became success if they were able to slaughter as many as possible water buffaloes in the *Rambu Solok* ceremony, because it was a success measurement that was also a prestige measurement.

And the forth was economic reason. *Toraja's* last offices were held appropriated with the family economical readiness because it was needed high cost. For the noble who had financial ability, commonly they would directly held the ceremony at the time their family member's died, but for the usual society, they would waited until they had enough cost. In order to wait that cost sufficiency, the corpse was commonly lied down in the *Tongkonan* and was prepared the need of eat and drink such a life person. In preparing the last offices, each of the family members made a serious effort to provide or render all their wealth for the need of last offices. It was done because it would determine the acquisition of the inheritance distribution from the left wealth. For *Toraja's* society, each of the inheritor who gave the most participation or the most sacrificing of water buffaloes at the moment of *Rambu Solok*, so the persons involved automatically had a right to get more inheritance wealth than the inheritor who sacrificed a little water buffaloes (was an unwritten determinate or simultaneous consensus in the *Toraja's* society). In order to determine who the contributor and how much had to contribute, commonly it was done a meeting among families, where could engage the inheritor and was not inheritor such as the elders and the government elements. That family meeting aimed to make a decision and had to be agreed by all parts particularly the inheritor or generation. Specifically, decisions had to be chosen in the family meeting such as talking about the determination or agreement of the funeral ceremony level. That ceremony level was adapted by the ability in providing slaughtered animal and the social strata of the dead person. It was also talked about the



determiner of the slaughtered animal number based on the animals that were prepared by the inherited even not an inherited. It was also agreed about the ceremony holding, such as it was centralized in the dead person's house, field, or was determined in *Tongkonan* (Note 9). This matter needed to be determined in the family meeting or talking about the preparation of the ceremony cabin. All the needed things were completely prepared by the main family, but it was not impossible to receive any help from the other parts, because sometimes there were things that were also prepared by the other parts outside of the inherited. Therefore, principles in preparing all the needed things in the ceremony were done communally and were helped by the environs society members.

Related to the wish about *Ma'badong* inheritance media show, Simon described that there was an anxiety, particularly when seeing the technology of information and communication development at this time, in addition the youth attitude that was influenced by the modern media development. They seemed more interested toward modern things and irresponsible toward their forefathers' custom, which was reputed as an old-fashioned thing. Even though they were believed that as the custom formula stated that, "As long as there was an endorser of a custom then that custom would always exist". Therefore, it was needed a management and resuscitation especially to the youth in order to consider the *Toraja* custom. Therefore, for Simon, he was not hesitant and worry about the continuance of *Ma'badong* inheritance media because the *Ma'badong* activity was an inheritance so that it was believed that as long as *Toraja's* society was still exists, the custom would be exists, too. In addition, there was also an attention from the government, even it was limited in the facility providing. It was realized that the most prominent thing was not only about the facility, but also the government staffs who should be able to create a suitable climate with the regional custom development. Because a custom product which was presented regionally had a role as a local policy which was inherited for hereditary and the benefit was felt by the native society of the custom.

Because *Ma'badong* was a custom product where was orally inherited from a generation to the next generation, so the government parts were not allowed to interfere in the format, especially if the reason was only for tourism then it was packed by giving priority to the performance aspect and forgetting the guidance aspect. If it happened, it would be a danger and threaten as exist of the custom product.

*Toraja's* figure who also gave an explanation about the *Ma'badong* inheritance media show was Luther Tito, 54 years, who worked daily as a teacher in the Public Vocational High School 80 Parepare. He was a *Toraja's* society member and the elder of *Toraja's* society organization in Parepare, also as the player of *Ma'badong* inheritance media show. When describing about *Ma'badong* inheritance media show which was knew by *Toraja's* society, Luther said that *Toraja's* society had a similarity with other societies in South Sulawesi, was a custom society, it meant that the society's behavior was based on the religion precept and custom guidance which was being a habit in their life way, especially for *Toraja's* people and commonly for South Sulawesi native.

Therefore, in the *Toraja's* daily life they followed the custom which full of custom ceremonies, where one of the completeness was the inheritance media show. Started from wedding ceremony, baby birth welcome, riding oscillation, ground treading, house building, house moving until passed away, the ceremony would still be done. Therefore, it could be said that in *Toraja's* society and South Sulawesi totality, an inheritance media show was not a separated part, because it was the completeness in the ceremony.

Until now, *Toraja's* society still knew about the variance of inheritance media, but there were things that difficult to describe that caused by the death of the player, also the instrumentation was difficult to find. The most popular in *Toraja's* society was *Ma'badong* show, which was done in the form of blending among movement and orally rhyme which was guided by someone who was called *Indo Badong* (meant as *Badong* guidance).

According to Luther, *Ma'badong* was very popular because it was last offices completeness in the *Toraja's* society. It meant that even the *Toraja's* society lived outside of *Toraja's* region, but if there was any society member passed away, *Ma'badong* would still be done as the form of togetherness and as a dedication expression from the life to the dead. Therefore, there were fold function of *Ma'badong* which was done by *Toraja's* people who lived outside of the region, beside as the completeness in the last offices, also as a developing and perpetuation medium of *Toraja* custom.

Related to the struggle in perpetuating *Ma'badong* inheritance media show, Luther described that the government parts, especially *Tanah Toraja* regional development, giving high attention to the folk art perpetuation efforts of *Toraja's* society, because almost all of the regents were the native of *Toraja* who was mostly understand with the *Toraja's* custom and tradition. Luther explanation, was also supported by the law which said that regional custom should be exist and develop. Therefore, based on the moral and social responsibility, for *Toraja's* people, even they lived outside of *Toraja* regional, they would always introduce

*Toraja* custom and tradition to the *Toraja*'s youth generation, so that the custom and tradition as hereditary cared and exist because of the inheritors.

Undeniable fact, that *Ma'badong* activity was still exist until now in *Toraja*, it gave an evidence that the youth generation seemed enthusiastic to eternity the *Toraja*'s custom and tradition, moreover they lived in *Toraja*. It was an obligation for them to learn, understand, and eternity the *Ma'badong* activity as the part of last offices which was very respected by *Toraja*'s people. The anxious thing was supposed to *Toraja*'s people who lived outside of *Toraja* region, because they were certainly influenced by the other factors such as foreign custom or modern mass media.

### **5. The Heritage Media in the Perspective of Cross Culture Communication**

The perspective of cross culture communication in the context of media can be explained that the cross culture communication approach is meant by the more positive review toward the purpose of the media itself in order to comprehend the significance and role that are carried by the culture of certain society's life such as teenagers, workers, ethnical groups, or other groups in a society. The cross culture communication approach is also aimed to explain about the roles of culture in integrating and making discipline a society that is potentially to deviate the society's norms and values, with the result that this approach is trying to comprehend the society's message by comprehending the social experience of small groups in the society as thoroughly, critically, and directionally, in order to give an explanation that is involving of the choice pattern or reaction toward the media (McQuail, 1989:66-67).

As a cultural phenomena, the religious message that is delivered by the heritage media, as an example is *Ma'badong*, is cannot be separated by the cultural context generally. Moreover, if the belief that is expanded by a certain society, including *Toraja*, is agreed as the part of culture, therefore the process since the belief is received until how the society carry out their belief, at least it cannot be separated from the using of symbols that is believed contain of the holy and sacred values. Therefore, the cross culture communication perspective in the study of media consider the communication phenomena as the people connecting process in the context of society. In this case, the components of that process have a role as a producer and user where each part defines the existing of communication by their interest as the pragmatic function of their culture. The existing of media is reviewed as contextually by the reality of the society as the expanse. Basically, the reality of society can be distinguished as the empirical reality that come from the social interaction and physical reality that come from the human thought. This will carry out information that is categorized as factual and fictional, with the objective and subjective function as the interaction process.

According to that case, in one of his article, Joachim Wach (1960) states that all of the religions or believes is indicated by three universal expressions such as theoretical, sociological, and practical. Those three things are explained by Wach as follow:

“Theoretically, religion always implicate the matters that are believed by the believers, that is verbally can be expressed by the believing system in the form of myth or religion theory. Myth is a sequence of a narration that is including the society vision from the environment. Myth visibly cannot be believed as a right thing, but in all of the society's cases, myth is psychologically right. Meanwhile, religion theory is the next stage from the developing theory in the religion that rationalizes an inconsistency of myth, also a practice to explore some phenomenas by make them intellectually logic. Therefore, religion theory can be said as a more concrete way than myth. Religion theory consists of doctrine, dogma, theology, and religion theory. Socially, religion always related to the social aspect, it means that the religion review is cannot be separated from the social context. Religion always involving a social relation system and the individual role in a society's life. Whereas, based on the sociological form of religion, the existence can be seen in the church thypology, sect thypology, even cult thypology (worship a human), those things are the form of the most general religion sociology in the traditional or modern society. Practically, religion is always related to holy things. Therefore, prayer which is done by an individual or in group, in the form of worship, meditation, haji, holy war, and sacrificing ritual are the kind of religion practices that are related to holiness.”

In the religion message, the communication form is called by ritual communication (Mulyana, 2007:27) that is a kind of communication that is done collectively in the form of ceremonies. The ritual communication practice through the funeral ceremony of *Ma'badong* in the *Toraja* society in South Sulawesi is always performed in group, especially if there is a society's part died. In that ceremony, the people say some words or symbolizing behaviors, and other rituals such as praying, saying magic word, burning incense, sounding gong, offering flower or food, and so on. People who mixed up with that ritual, clarify their commitment toward the tradition of their family, community, communal, nation, ideology, and religion.

The heritage media which has a characteristic, nature, position, function, and carry an impact, directionally will have a potential and strength. Therefore, in packing the message that will be delivered by the players in the heritage media performance as the communicator have to consider the audiences' demand and necessity as the message receiver. Therefore, it means that the player as communicator have comprehended the demand of current development that leads to the form of performance that is appropriate with the nature and desire of the society itself.

The condition of society and culture of South Sulawesi in the form of custom, tradition, and the change-over, including the change of heritage media performance, in the scope of social or cultural change, resulting a comprehension in this study, that the change will always keep the society's identity. Identity is an important thing in the cross culture communication perspective because it intimates the character of society and culture that is able to help in understanding the function and meaning of the society's activities.

*Ma'badong* as a kind of heritage media in Toraja, is called as "*Cultural Commodities*". It means that the performance material is a commodities which is produced then can be sold (in the form of CD, DVD, Video tape). Therefore, professionally it can be said that the heritage media is an activity that have to be valued, because in the production process it involves and needs some people's skill so that is created a collaboration process. People who are involved in *Ma'badong* process try to reveal their ability by bring a producer and culture maker. They also have a role as a social institution such as school and family that is besides able to entertaining also able to do other positive functions such as production, socialization, teaching values, education, giving information, or become a social control toward the children, teenagers, workers, ethnical groups, or other groups in a society. It can be concluded that *Ma'badong* is a cultural product that can be a heritage media of Toraja.

## 6. Closing

Analyzing both of Simon and Luther's statement, it could be said that the inheritance media show in the *Toraja's* society was a statically factual record. It meant as *Toraja's* people, *Ma'badong* inheritance media show which was experienced since being child until being adult was being a routine activity which had no many changing (statically) as the custom rule which applied by *Toraja's* society. Such as head movement, shoulder, hand, and foot, also the rotation, there were no change and variation, likewise the arrangement which was still exist since the past until now. Even though there was a social change in the society generally, but the *Toraja's* society as a community, should face it then kept the principle on the custom rule which was followed and complied hereditary by *Toraja's* people.

The delineation of *Toraja's* society condition as described above was in line with Edi Sedyawati view (in Arif Budi Wuriyanto, 2005, p. 215) who stated that a society who was aware and able to respect their inheritance custom mostly able to adapt harmonically toward modernization dynamism. Cases which were understood as *Walat* (rebellious) such as cases which based on the outsider's view were deemed to be a myth, were precisely deemed to be a custom strength for the native society and could be utilized as a filtering or screening toward the influence of the other custom.

*Ma'badong* as a religious inheritance media show which engaged a strong and sturdy emotional enchantment by the followers, had an impact toward the *Toraja's* believe as a feed back of the belief system which was dominated by an ideal image which at last formed *Toraja's* people character or inter human relationship, especially as a fellow *Aluk Todolok* believer, also toward the supernatural cases due to their belief. Indeed, sometimes religion aspect was exceedingly centralized the attention toward the indication which was deemed to be an exceptionally and irrational thing, however it had very important role in guiding the believer society. Therefore in *Toraja*, a religion activity was done as a belief realization which was a daily life reflection. The purpose was to reduce the anxiety (afraid, horrifies, and other similar feeling).

For *Toraja's* people, the result of anxiety feeling created a fully self surrender toward 'something' which occupied a central position in *Aluk Todolok* belief which was followed without being rationalized beforehand. As a custom phenomenon, a religious message which was stated through the inheritance media as an example it could not be separated with the cultural context generally. If there was an agreement reached that belief was a part of culture (particularly a belief that was developed by certain society), at least it was begun from the process until arrived in the believer society, it could not be apart from the symbols utilizing which was believed that contained a holy and sacred value.

In the social reality, there were many society groups or society members as individual who was guided by the religious rules, or belief which was developed by certain society groups that was followed and believed. In order to do the activity related to their followed religion rule implementation and practical, commonly the society held

a ceremony where one of the equipment was done by the inheritance media show. The delivering message was called by religious message due to the relationship among human and God, inter human, and among human and the surroundings. According to Yusuf Akib (2003: 13), this case happened because a developed religion or belief by a certain society could be meant as a set of rule and regulation which regulated the relationship among human and God, inter human, and regulated the relationship among human and the environment.

Therefore, the social ritual activity of *Toraja*'s funeral, beside paid an attention to the custom symbols, wearing clothes and accessories also got a special attention because all of it would show the society members' position and social status. It was similar with Barnard (1996: 97) statement that in attending wedding or funeral ceremony, people was not allowed to wear daily clothes, while people tended to wear newer and better cloths because except it was determined by a ritual regulation, it also would show someone's social status.

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## Notes

Note 1. Ma'badong was formed from two words they were 'Ma' which meant as doing and 'badong' was a dancing name so that Ma'badong meant as doing badong dance and song. While the player was called as Pa'badong (word 'Pa' meant as player, so Pa'badong was persons who play badong dance and song).

Note 2. Lantang was a custom building which was only made for once using at the moment of last offices. This custom building was made from wood and board which would be took apart after the lst offices.

Note 3. Ma'badong activity was only held when the corpse was not burried yet or still in the grief home, and Ma'badong activity was not allowed if the dead person was burried. Toraja's people commomly would not directly be burried but waited for the family agreement, sometimes the funeral was done after days, weeks,

months, even years measurement.

Note 4. Aluk meant religion, Todolok meant forefathers. Aluk Todolok meant as the forefathers' religion.

Note 5. Rambu Solok was a ceremony due to a death and position where consisted of religion and social dymension for Toraja's people.

Note 6. Spirit's world, heaven, or the beyond.

Note 7. Tedong Bonga was a stripe water buffalo which was deemed only lived in Toraja, it had a beautiful horns, posture, body color, and eyes.

Note 8. Many responses and comments turned up due to the last offices in Toraja, some people said that ceremony only a great wasting, because in that ceremony it was just wasting much money, but there was other opinion that a custom ceremony could not be measured by money, because this case related to human's feeling.

Note 9. Tongkonan was a name of Toraja's custom building with the characteristic of wooden stage house where the space underneath of the house was used as water buffaloes stall. The roof was layered by black palm fiber and the arched shape that was similiar with a downward ship consisted of astern. But there were people who had a hunch that the shape looked like water buffalo's horn.

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# Trading Volume and Stock Returns Volatility: Evidence from Industrial Firms of Oman

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Received: April 28, 2015 Accepted: July 13, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p139

URL: <http://dx.doi.org/10.5539/ass.v11n24p139>

## Abstract

This study analyzes the relationship between trading volume and stock return volatility for industrial firms listed on Muscat securities market. Several tests were utilized to include: Brailsford model, vector autoregressive model (VAR), and the pairwise Granger causality test. The empirical results provide evidence of a significant positive effect for return volatility on trading volume. Likewise, the VAR model provides evidence of a significant positive effect of trading volume on stock returns. On the other hand, the pairwise Granger causality test reveals that trading volume Granger-cause stock return. The previous findings are inconsistent with the weak-form of the efficient market hypothesis.

**Keywords:** trading volume, stock return volatility, vector autoregressive model, pairwise Granger causality test, weak-form efficiency, Muscat securities market

## 1. Introduction

There is a considerable amount of research that investigated the relationship between trading volume and stock returns. In a simple term, trading volume can be referred to as the amount of security or securities (even the entire market) that were bought and sold during a given trading day. Accordingly, many practitioners and academicians in the investment field consider trading volume as an important technical indicator utilized to measure the strength of the market. On the other hand, the efficient market hypothesis assumes that investigating this relationship will not help investors in achieving abnormal rate of return. Fama (1970) states that current stock prices reflect all security market information including the historical sequence of prices, rates of return, and trading volume. Therefore, it will be futile to use any trading rules to make a purchasing or selling decision based on past rate of return, trading volume or any past market data.

Results from previous studies related to this issue are abundant and mixed. However, most of them regardless of the econometrical models they used, found a relation between trading volume and market return such as in Osborne (1959), Ying (1966), Morgan (1976), Epps & Epps (1976), Westerfield (1977), Rutledge (1984), Saatcioglu & Starks (1998), and Mahajan & Singh (2009). On the other hand, a very few studies found some conflicting results about this relationship such as in Granger & Morgenstern (1963), James & Edmister (1983), Rogalski (1978), and Harris & Raviv (1993).

The aims of this paper are two-fold. First, it analyzes the relationship between trading volume, and stock return volatility for industrial companies listed on Muscat stock market. It is worth mentioning that there are a scarcity in the literature regarding the behavior of Omani financial market including the relation between trading volume and stock return volatility. Moreover, Oman is rapidly growing emerging market; therefore, this study will be beneficial to investors by giving them a brief preview to the structure of the Omani stock market if they are interested in entering such an emerging market. In addition, the study concentrates on examining only one sector, the industrial sector, instead of including all sectors. We believe that the characteristics of different sectors may have influence on the results. Therefore, this study limited itself to the industrial sector only to avoid biasness.

The second objective of this study is to derive into a conclusion whether the results of such a relationship are consistent with the weak-form of the efficient market hypothesis.

This study includes the following sections: Section 2 explains briefly the results of previous studies. On the other hand, section 3 describes data and research methodology. Analysis of the empirical results is reported in section 4. Finally, section 5 presents the concluding remarks.

## 2. Literature Review

There is an extensive empirical research in the literature that investigated the relationship between stock return and trading volume. For instance, early study by Granger and Morgenstern (1963) utilized the spectral analysis on New York stock exchange composite index for the period 1939 till 1961. The findings show no relation between the absolute value of daily price change and the daily volumes. A few years later, contrary results were obtained by Ying (1966) where a strong positive correlation was found between the changes in prices and volume. The study revealed that a small volume is associated with price fall and large volume is associated with a price rise. Later on, Crouch (1970a), Crouch (1970b), Westerfield (1977), and Tauchen and Pitts (1983) all reached the same conclusion of a positive correlation between volume and returns.

Studies on the future markets by Cornell (1981), Rutledge (1984) and Grammatikos and Saunders (1986) also revealed a positive relationship between changes in volume and changes in the variability of prices of individual future contract.

On the other hand, Smirlock and Starks (1985) used individual stock data and Granger causality test. The results show a strong positive lagged relation between absolute price changes and volume. Similarly, Jain and Joh (1988) examined the joint characteristics of hourly stock trading volume and returns on New York stock exchange. Their findings show a strong contemporaneous relation between trading volume and return lagged up to four hours. Hiemstra and Jones (1994) investigated the dynamic relation between the daily Dow Jones stock return and the percentage changes in New York stock exchange trading volume. They found a significant bi-directional nonlinear causality between return and volumes. On the other hand, Datar, Naik, and Radcliffe (1998) tested the relation between liquidity and stock returns. They found evidence that liquidity plays a significant role in explaining the cross-sectional variation in stock returns.

Six Latin American stock markets were investigated by Saatcioglu and Starks (1998). Their findings show a unidirectional relationship where trading volume changes lead to price changes. Similar conclusion was reached by Chordia and Swaminathan (2000). They found daily and weekly returns on high volume portfolios lead returns on low volume portfolios.

As for China stock market, Lee and Rui (2000) investigated the contemporaneous and causal relationship between trading volume, stock returns and returns volatility for four Chinese stock exchanges. They found that trading volume does not Granger-cause stock market returns. In addition, US and Hong Kong trading volumes do not Granger-cause either return or volatility in China stock market. On the other hand, a positive correlation between trading volume and the absolute value of stock price change were found by Chen, Firth, and Rui (2001). They tested the dynamic relation between stock returns, trading volume and volatility of stock indexes for nine national markets. They found that returns Granger-cause volume and volume Granger-cause returns for some countries. Similar tests were also conducted by Lee and Rui (2002) on New York, Tokyo, and London stock markets. Their results reveal that trading volume does not Granger-cause stock returns for each of the three markets. In addition, they found a positive relationship between trading volumes and return volatility in the three stock markets. Moreover, the US trading volume exhibited a significant predictive power for Tokyo and London financial markets.

Investigating the emerging stock market of Kuwait, Al-Saad (2004) detected asymmetric relationship between change in price and volume. Similar results were obtained by Kamath and Wang (2006). They examined the daily rate of return and the trading volume for six Asian equity markets. They found a significant contemporaneous relation between volume and returns.

On the other hand, Léon (2007) found that volume has a predictive power of stock returns volatility for the regional stock exchange of the West African Economic and Monetary Union. Similarly, Assogbavi, Schell and Fagnissè (2007) examined the Russian stock exchange. Their findings reveal a strong evidence of bi-directional relation between volume and price change. Moving into the Southeast Asian markets, Pisedtasalasai and Gunasekarage (2007) tested the causal and dynamic relationship among returns, return volatility and trading volume for the equity markets of Indonesia, Malaysia, the Philippines, Singapore, and Thailand. They found a strong asymmetric relationship between stock returns and trading volume. They conclude that returns are



important in predicting their future dynamics as well as those of trading volume. However, trading volume found to have a limited impact on the future of dynamics of stock returns.

Testing Pakistan equity market, Khan and Rizwan (2008) found a positive contemporaneous relationship between trading volume and return preserves after taking heteroskedasticity into account. Besides, Al-Saad and Moosa (2008) tested again the emerging equity market of Kuwait. They found evidence of asymmetry and concluded that trading volumes are higher in a rising market. On the other hand, Sabri (2008) examined eight Arab stock markets and found that volume and prices are significantly integrated and volume volatility represents the most predicted variable of increasing price volatility. However, the correlation between volume and price movements was higher in the stock markets of oil Arab countries.

Using the ARCH and GARCH-M models, Mubarik and Javid (2009) investigated Pakistan stock market. Their results show a significant relationship between trading volume and volatility. Similar results were obtained by Khan and Ahmad (2009) when they investigated Karachi, KSE 100 index. They found that trading volume and stock returns are affected by the arrival of events such as a terrorist attack or the assassination of a political figure.

The Indian stock market was tested by Tripathy (2011) who also found a bi-directional causality between trading volume and stock return. On the other hand, Pathirawasam (2011) investigated the relationship between trading volume and stock returns for 266 stocks listed on Colombo stock exchange. The findings show that stock returns are positively related to trading volume. In addition, past trading volume change is negatively related to stock returns.

Similarly, Al-Jafari and Tliti (2013) empirically tested the banking sector of Amman stock exchange. Their findings show a significant relationship between trading volumes and return volatility. The VECM revealed evidence of long-run causality from return to trading volume. On the other hand, Sun and Li (2015) examined stock returns, volatility and volume in a simultaneous equations model. Their results show that the three variables are interrelated and that intraday skewness has a significant impact on daily returns, volatility and volume.

### 3. Data and Research Methods

#### 3.1 Data

The research sample consists of monthly trading volume and stock return for 17 industrial companies listed on Muscat securities market from January 2009 till December 2013 for a total of 1020 observations for each variable. The monthly data were collected from the website of Muscat securities market ([www.msm.gov.om](http://www.msm.gov.om)).

#### 3.2 Methodology

The stock return is calculated as the logarithm of the first difference of closing price at each month as shown in equation 1:

$$R_t = \ln\left(\frac{P_t}{P_{t-1}}\right) \quad (1)$$

As for trading volume, we utilize the natural logarithm of traded shares as commonly used in previous literature and indicated in equation 2.

$$V_t = \ln(Vol_t) \quad (2)$$

To examine the relationship, we employ first the unit root test as proposed by Dickey & Fuller (1979), and Phillips & Perron (1988) to check if the times series is stationary. Equation 3 states the general model of the Augmented Dickey-Fuller (ADF) test:

$$\Delta y_t = \beta_1 + \beta_2 t + \delta y_{t-1} + \sum_{i=1}^m \alpha_i \Delta y_{t-i} + \varepsilon_t \quad (3)$$

On the other hand, the Phillips-Perron test is stated in equation 4:

$$\Delta y_t = a y_{t-1} + \beta X_t + \varepsilon_t \quad (4)$$

In addition, the study utilizes the model proposed by Brailsford (1996) to investigate the relationship between trading volumes and return volatility as in equation 5:

$$V_t = a_0 + \beta_1 V_{t-1} + \beta_2 V_{t-2} + a_1 R_t^2 + a_2 D_t R_t^2 + \varepsilon_t \quad (5)$$

In general, the presence of cointegration suggests that we should model the data using the vector error correction

model (VECM) rather than using the VAR model. However, if variables are stationary at the level, this means there is no long-run relationship and a short-run relationship may exist. In this case, there will be no need for estimating the cointegration.

It is worth mentioning, the estimation of the VECM will reduce the estimation of the VAR model for a multivariate time series. Therefore, VAR is considered one of the most successful, flexible, and easy to use model for the analysis of multivariate time series. Accordingly, each variable is a linear function of past lags of itself and past lags of the other variables. Afterward, the causality analysis can be conducted to investigate the causality between the variables. The VAR model can be expressed as follows:

$$R_t = a_0 + \sum_{i=1}^m \beta_i R_{t-i} + \sum_{j=1}^n \beta_j V_{t-j} + \varepsilon_{1t} \quad (6)$$

$$V_t = a_0 + \sum_{i=1}^m \beta_i V_{t-i} + \sum_{j=1}^n \beta_j R_{t-j} + \varepsilon_{2t} \quad (7)$$

#### 4. Analysis of the Empirical Results

Table 1 shows the descriptive statistics of the natural logarithm of trading volume and stock returns. We can observe that the mean of stock return is 0.0083 with a big difference between the maximum return of 1.26 and the minimum return of -2.087. These results are consistent with the high standard deviation values. Also we can see from the table that the return series does not follow a normal distribution which was tested by using Jarque-Bera test that rejects the null hypothesis of a normal distribution. Furthermore, the results are also consistent with the skewness and the kurtosis statistical values. Similarly, the Jarque-Bera test, the skewness and kurtosis values indicate that trading volume series does not also follow a normal distribution.

Table 1. Descriptive statistics of the variables

	Return	Volume
Mean	0.008341	13.18061
Median	0.000000	14.04375
Maximum	1.263487	18.00831
Minimum	-2.087058	0.000000
Std. Dev.	0.144869	3.441792
Skewness	-4.843385	-2.358183
Kurtosis	90.34868	9.343058
Jarque-Bera	322783.2	2608.477
Probability	0.000000	0.000000

Tables 2 and 3 below show the panel unit root test for stock return and trading volume. According to the results, we reject the null hypothesis that the series has a unit root and conclude that stock return and trading volume are integrated at the level. This means there is no cointegration between trading volume and stock returns and that further analysis for the relationship will be conducted using the VAR model.

Table 2. ADF-Fisher unit root test

		At level			
		With intercept		With intercept and trend	
		Statistic	Prob.*	Statistic	Prob.*
Return	ADF - Fisher Chi-square	305.923	0.00	247.656	0.00
	ADF - Choi Z-stat	-14.9455	0.00	-12.9572	0.00
Volume	ADF - Fisher Chi-square	120.342	0.00	144.847	0.00
	ADF - Choi Z-stat	-7.15812	0.00	-8.22189	0.00

Note: \*, denotes significance at the 1% level.

Table 3. Phillips-Perron Fisher unit root test

		At level			
		With intercept		With intercept and trend	
		Statistic	Prob.*	Statistic	Prob.*
Return	ADF - Fisher Chi-square	571.087	0.00	499.319	0.00
	ADF - Choi Z-stat	-21.7828	0.00	-20.0974	0.00
Volume	ADF - Fisher Chi-square	205.756	0.00	246.769	0.00
	ADF - Choi Z-stat	-10.9537	0.00	-12.574	0.00

Note: \*, denotes significance at the 1% level.

Table 4 below shows the results of the relationship between trading volume and return volatility. They indicate a positive effect for return volatility on trading volume at 1 % significant level. The value of adjusted R-squared indicates that 42.5 % of total variation in trading volume is explained by this model. In addition, the F-test is significant and the results are reliable. Therefore, we can conclude that there is a significant relationship between trading volume and stock return.

Table 4. Results of relationship between trading volume and return volatility

Variable	Coefficient	t-Statistic	Prob.
Volume(-1)	0.45652	14.73743	0.0000
Volume(-2)	0.246939	8.02183	0.0000
Return <sup>2</sup>	1.124993	2.592124	0.0097
DU*R <sup>2</sup>	-4.707915	-3.259609	0.0012
C	3.955634	10.92339	0.0000
F-statistic	178.9618		0.0000
Durbin-Watson stat.	2.128488		
Adjusted R-squared	0.424515		

As shown in Table 5, the results of the VAR estimates considering stock return as an endogenous variable show elasticity of stock return to trading volume of 0.0041 at 5 % significant level. This means that stock return is responding positively to changes in trading volume. Likewise, the value of F-test is significant at the 1 % level. Therefore, we can conclude a significant positive effect of trading volume on stock returns.

Table 5. The results of vector autoregression estimates

	D(Stock Return)	D(Trading Volume)
R(-1)	0.005255 [ 0.16441]	-0.592861 [-1.04183]
R(-2)	0.050320 [1.57904]	0.053799 [ 0.09482]
V(-1)	4.090000 [0.02339]	0.459734*** [ 14.7500]
V(-2)	0.004100** [2.37148]	0.237870*** [ 7.72804]
C	-0.046011** [-2.26533]	4.020734*** [ 11.1188]
R-squared	0.012743	0.419463
Adj. R-squared	0.008633	0.417047
F-statistic	3.100945***	173.5913***

Note: \*\*\*, and \*\* denote significance at 1%, and 5% level respectively.

To test for causality, the pairwise Granger causality test at lag 2 is utilized. The results are listed in Table 6 and it show that we cannot reject the null hypothesis stating stock return does not Granger-cause trading volume. On the other hand, we can reject the null hypothesis stating that trading volume does not Granger-cause the stock return for industrial firms in Oman. Therefore, we can conclude that trading volume Granger-cause stock return.

Table 6. Pairwise Granger causality tests at lag 2

Null Hypothesis	F-Statistic	Prob.
Volume does not Granger cause return	4.69963	0.0093
Return does not Granger cause volume	0.54636	0.5792

## 5. Conclusion

This study empirically examines the relationship between trading volume and stock return volatility for 17

industrial companies that are listed on Muscat securities market. Therefore, several tests were utilized to examine such a relationship. The results show that stock return and trading volume are integrated at the level. In addition, the study provides evidence of a positive and significant effect of return volatility on trading volume. These results are similar to the findings of Sabri (2008), Mubarak & Javid (2009), Tripathy (2011), Pathirawasam (2011), and Al-Jafari & Tliti (2013). Likewise, the study finds a significant and a positive effect of trading volume on stock returns. Finally, the pairwise Granger causality tests reveal that trading volume Granger-cause stock return. The study concludes that the findings contradict the weak-form of the efficient market hypothesis.

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## Heretical Innovation of Distorted Beliefs (*Bid'ah Dalalah*) and Superstitious Practices Among Muslim Society in Malaysia

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Received: April 28, 2015 Accepted: June 1, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p147

URL: <http://dx.doi.org/10.5539/ass.v11n24p147>

### Abstract

The teaching of Islam has warned and reminded Muslim society regarding the threat of superstitious practices after the period of the Prophet Muhammad (peace be upon him). Various distorted beliefs, such as shamanism and fortune-telling, have simultaneously spread all over the Muslim world including Malaysia. Among several causal of heretical innovation of distorted belief is ignorance and lack of religious knowledge. This article highlights contributing factors of Malays' involvement in superstitious practices which stresses on their perception, beliefs and practices. The writing of this article is based on the study conducted through qualitative methods using observation and interview. Selected key informants from religious affairs departments and political leadership are selected as respondents of the study. The result found that lack of religious education, ignorance, the influence of shamanism and strong belief in mystic and magic are accepted to contribute to the occurrence of superstitious practices. These causal factors need to be addressed in the very best possible manner by the Islamic affairs authorities in order to prevent further society involvement.

**Keywords:** *Bid'ah Dalalah*, Superstition, Heretical Innovation, Distorted Belief, Malay Society, Islam

### 1. Introduction

#### 1.1 A Brief Introduction on Heretical Innovation of Distorted Beliefs (*Bid'ah Dalalah*) and Superstitious Practices

Distorted beliefs and practices are the manifestations of the existence of the Jahiliyyah Arab society before the dawning of Islam. The Prophet Muhammad (pbuh) was aware of instances of distortion of faith would begin with new practices that would contradict the Islamic faith and Islamic law. Thus, the Prophet (pbuh) was reported to have said that all new practices are heretical innovations to avoid spiritual and syariah deviation for the last generations of the ummah (Abd-Allah, 2006). The debate about the matter was even discussed by Muhammad al-Ghazali in his kitab (book) *Laisa min al-Islam*. He too mentioned about the phenomena of the spread of the distorted beliefs and heretic innovations across Arabia such as the emergence of several deviant spiritual groups.

In the Malaysian context, this phenomena is also presented to the 40th Discourse of the National Fatwa Committee for Islamic affairs of Malaysia on the 9th August 1996. The committee had discussed the topic of distorted beliefs and talisman from the Islamic perspective. The discourse finally decided that the practice of worshipping and seeking help as practiced by the shamans are considered acts of polytheism. In addition, the use of talismans for self-protection to be invincible, to gain influence, to soften the heart, to keep away the jinns and the likes are also considered as acts of polytheism and deviating from the basic teachings of Islam (e-Fatwa, 1996).

The above mentioned practices are in concordance to the practices of seeking the shamans and believing in the power of talisman. According to (Abdul Manam, 2008), among the shamans, there are those who deviate in their practices and actions such as the worshipping of the spirits, use of dirty and forbidden substances and beliefs which are against the Islamic faith and Islamic law. In addition, as Abdul Fatah (1999) notes, the Malay society

is easily exposed to the spiritual influence which may result in the deviant form of Islamic faith. Spiritual influence referred to here including worship particular places considered holy, or persons considered saints and the belief that the shamans have absolute power. These practices are classified as heretical innovation of distorted beliefs. The emergence of this beliefs results in the appearance of various deviant teachings among the Malay community such as the teachings of Ayah Pin, Al-Arqam and so on. With such a background, the Malay community is readily exposed to negative elements that would soon result in the erosion of the Islamic faith of the ummah. If this phenomena is not curtailed, the risk of the deviation of faith through the spread of various deviant ideologies is higher and will be more difficult to overcome. Therefore, this article aims to highlight some points of view from several authorized key informants on issues related to heretical innovation of distorted belief and its relationship with superstitious practices among Muslim in Malaysia

### *1.2 Heretical Innovation of Distorted Beliefs and Superstitious Practices from Muslim Scholars' View*

This issue has been widely discussed and analysed by local and international scholars via several articles and research undertaken. Amongst them is al-Qaradawi (1995) who stated that heretic innovations from the aspect of Islamic faith had already emerged. The heretic innovations he referred to are that violate the basic tenets of Islamic faith. What seems to be worrying is that such distorted beliefs would also be potential threats to the faith of the Muslim society since the emergence of several sects that seemed to encourage them as pointed out by al-Qaradawi (1992) with regards to the existence of three sects capable of destroying the Sunnah which are:

- i. Religious extremist group that deviates from the teachings of the Prophet Muhammad (pbuh). The followers tend to be extreme in their religious rituals and practices.
- ii. Attempts by people who are ignorant or deviant in explaining the rules and tenets of the Islamic faith. More often than not, they tend to bring about innovations into their religious practices.
- iii. Reasoning used by those who are ignorant about the religion. This group tends to interpret the religion devoid its Islamic spirit. Usually they physically appear as great scholars of Islam.

According to al-Sharqawi (2002), distorted beliefs have existed even before the dawn of Islam. As such, The Prophet (pbuh) has strongly warned against any form of distorted beliefs during his time. As an example, with regards to beliefs of birds bringing bad luck, talisman, fortune-telling and so on, the Prophet (pbuh) was narrated to have said :

There's no such thing as bad luck in birds, And that which is best is "al-fa'lu". The companions then asked, "What is *al-fa'lu*? The Prophet (pbuh) quickly responded "good words or sayings that will be heard by someone amongst you"

The above Hadith clearly shows that the phenomena of distorted beliefs has flourished even before the coming of Islam. The attempts to eradicate these distorted practices had been done by the Prophet (pbuh) himself with the prohibition of such distorted beliefs as birds that could bring forth bad luck, fortune-telling and so on. This culture of ignorance was unacceptable to the Prophet (pbuh), who, instead, introduced the *al-fa'lu* which is the encouragement of good words or sayings such as seeking help, protection or even treatment of illness from Allah as in the sentence meaning "Oh Saviour (Allah)".

Several research and discussions on the issues of heretic innovations and distorted beliefs had been undertaken locally. Amongst them is Stapa (2011) who stated that there are several causal factors for the appearance of distorted beliefs and practices among the Malay community. One of the factors is the form of Islamization in this region. In the advent of Islam in this region, most of the Malay communities embraced Islam after their rulers themselves had accepted the faith. This phenomena resulted in the faith being embraced en mass as such that the Islamic faith was embraced en-mass without much full awareness and deep understandings of the Islamic faith and way of life. During the Islamization process, the Malay community also brought forth their inherited ancient traditions and rituals such as the beliefs in various superstitions, spirits, guardians of nature and so on (Stapa, 2011). These are distorted beliefs which contradict the Islamic law. Ismail (2008) stated that the elements of distorted beliefs had appeared through animisme. Such belief is closely related to the spirits that thrived in the invisible worlds and would appear to aid the Shamans. Animisme is also related to the beliefs in natural spirits. The existence of these natural spirits is believed to aid humans from evil spirits or commonly referred as ghosts. However, Mokhtar (1977) explained that, natural spirits possess the power acquired through people with exceptional strength, pious persons, aristocrats, the warriors and so on. These spirits are believed to possess the spirit and form like that of humans, the ability to eat and drink and also possess the feelings of anger and happiness. As such, these spirits must be served with "spirited rice" spirited tumeric rice. The tumeric rice is then poked with eggs and need to go through some "mantras" before it is served to the spirits.



According to Engku Zaki (2007), there are several traditional practices that deviate from the true Islamic faith, some of which are the ritual of to avoid of mishaps when constructing a house, a special ritual of massaging a woman's abdomen or womb during the 7th month pregnancy to facilitate delivery, removing bad luck rituals especially when dangerous or venomous creatures enter our houses and many more. These sorts of beliefs would obviously expose the Malay community to distorted practices if such beliefs are not quickly stopped or curtailed.

The discussions above show that research related to the source of the appearance of heretic innovations in Islamic faith can be traced to the distorted beliefs. Having said that, there are still many research gaps that need to be scrutinised such as the fact that the distorted beliefs culture seem to be allowed unchecked and widespread.

## 2. Method

A qualitative approach was used in this research. A few key informants were interviewed to understand their views on the issues. The choice of the informants was based on their expertise in the religious field and their involvements in social activities. There were also key informants chosen amongst government officers who were involved with reports and reference person for the community. Besides qualitative approach, this research had also utilised content analysis and observations to ensure that it will be more realistic in the current context.

## 3. Results and Discussions

The findings from this research found that there are four factors for the existence of distorted practices amongst the Malay community. The four factors are as follows:

### 3.1 Lack of Religious Education/Upbringings

Human behavior is very much influenced and formed based on his religious knowledge. As such, this would lead to the emergence of deviant practices such as the worshipping of particular places considered holy, idolization of personalities considered saints and worshipping of the sea. According to Basri (1997) among the contributors of heretic innovations are the debates on religion without ample knowledge in particular fields. Such debates would only cause the public to be dragged and drifted into the arguments without proper basis of faith. The effect from this is that the community will eventually drift and lost in the debates without a really sound religious education. The lack of religious education would expose the community to the threats of distorted beliefs that would lead them into heretic innovations in terms of faith (Basri, 1997).

One of the key informants from the Terengganu State Deputy Exco, Muhammad Ramli Nuh acknowledged this factor. He pointed out that amongst the Malay community there are those who do not acquire the true and correct knowledge to the extent that religious knowledge could not be disseminated to the Malay community. This happened due the lack of religious knowledge amongst the preachers themselves. Thus, religious authorities and scholars found it difficult to check the threats of deviant beliefs that emerge through various mediums. Rightfully, the religious expertise should equip themselves with various diciplines of knowledge, whether in the form of Islamic heritage or the modern form. This would indeed lead to the preachers being percieved as the ummah problem solver.

The Kelantan State Exco, Dr. Muhamed Fadzli Hasan on the other hand, noted that the Malay community do not possess the correct understandings of the Islamic teachings. He perceived that some goups of community view that whatever they have practiced thus far is in accordance to Islam. However, these practices are found to deviate from the boundaries of Islamic teachings and easily influenced by distorted beliefs threat. Another key informant from the Kelantan Religious Affairs Department, Noorlailawati Mamat viewed that the lack of religious education would result in the Muslim environment being easily influenced by external elements or forces.

The views and opinions of the these key informants are in accordance with the content analysis related to rituals of granting of blessings during wedding ceremonies. Such rituals prove the lack of religious understandings amongst the Malay community. They have adhered to these practices down the generations without any true basis. It is found that there is no religious basis for such practice, in fact it only leads to heretic innovation based on distorted beliefs (Mohd Syukri, 2008). What have been discussed thus far are the results of the lack of religious knowledge which would lead the society to continue living their lives astray without any clear religious guardian. This would certainly affect the community being exposed to heretic innovations in its faith.

### 3.2 Ignorance

The second factor identified is ignorance. The real truth has been camouflaged by ignorance due the inaccurate and wrong point of reference. The result from such incorrect knowledge and education has transformed the distorted beliefs and practices easily accessible. Based on Firdaus Khairi (2008), amongst the factors for the

emergence of heretic innovation is ignorance of the Islamic law. Such ignorance has resulted in the Muslim ummah to maintain ancient practices even though without any religious basis. Engku Ahmad Zaki (2014) also claims that ignorance towards Islam as a contributing factor in the catastrophe of Islamic faith among Muslims which consequently, lead to the existence of deviant teachings.

The source of ignorance as acknowledged by one key informant, Dr Muhamed Fadzli Hasan, is that some of the Muslim ummah are entrapped in ignorance of religious knowledge. As a result, negative and deviant teachings have unwarily succeeded to penetrate the new generation. He also viewed that the acculturation of distorted culture via various mediums such as television which has sowed negative implications when they reach adulthood.

Ignorance has also been recognised as a factor by the Kelantan State Mufti, Mohamad Shukri Mohad. According to him, ignorance caused the Muslim ummah to act beyond religious boundaries that contradicts with the Islamic law. He iterated that the true meaning of ignorance is not limited to one's ignorance about the worldly affairs but also the lack of the knowledge of hereafter. Such situation leads them to act beyond religious boundaries.

The other key informant, the Senior Deputy Director of Department of Islamic Affairs, Pahang, Badli Shah Alaudin explained that the existence of deviant teachings in this region is the effect of the ignorance of the Muslim ummah towards the true teachings of Islam. According to him, leaders of deviant teachings are able to influence the Muslim ummah through strategic and sistematic approach. At the same time, the Malay community is lured by negative culture that is being exposed to them through the various current mediums.

The negative implication as mentioned above is in accordance with the content analysis of Engku Zaki (2007). Based on his research, the television is identified as the contributor to the spread of deviant techings. The screening of negative elements via Satanic music such as Thrash & Death and Heavy Metals are being introduced to the younger generations. The symbols of the skull, ghosts and splashes of blood printed on their shirts, chains, rings and so on were introduced to them via the media. All these have exposed the community to the negative culture leading to deviant beliefs and practices.

### *3.3 Influence of the Belief in Shamanism*

Based on the researcher's observation, the third factor is the influence of Shamanism. In the Malay community, shamans have huge influence and quite high status or role in solving the community's problem. They offer their services for the treatment for all kinds of illnesses to the public. According to Firdaus Khairi (2008), amongst the contributing factors of deviant heretic innovation is the influence of magic and predictive knowledge. Often, this influence emerges from the methods of shamanism. These shamans possess the skills of predicting as a "weapon" to attract customers.

Such view is also shared by one of the key informants, Noorlailawati from the Kelantan State Religious Department. According to her, there were many reports about the services of the shamans that involved in distorted beliefs. She explained that the belief in Shamanism still exist and is often identified as the initiator to the distorted beliefs in the local community.

The argument for the shamans' influence in the Malay community is also shared by the Kelantan State Mufti who stated that there are shamans who contradicts Islamic law. Even there are shamans who tarnish the image of Islam by using Qur'anic verses to gain the customers' confidence and trust. According to another key informant, Dr. Muhamed Fadzli Hasan, shamans are easily tricked by the satan whose role is to break the husband-wife and community relationship. According to him, there are members of the community that perceive the shamans as having a very important role in solving any form of problems that they face. As an example, when experienced some health problems, the initial reference and preference would be the shamans rather than qualified doctors. This has led them to be exposed to the wrong methods of treatment of ailments which unfortunately lead the Muslim ummah to be entrapped in the distorted and polytheist practices via shamanism.

This factor is also aknowledged in the content analysis about the methods of shamanism within the Malay community. According to Engku Zaki (2007), the influence of shamans is very strong within the Malay community. Some shamans are even granted the role to lead religious rituals, preparation of "medicinal water", talismans, protection from mishaps, worshipping of spirits and so on. At the same time, there are shamans who empasize on the use of "magical or invisible" powers to diagnose illnesses suffered by patients that are believed to be related to external invisible powers.

### *3.4 Belief in Mysticism and Magic*

The fourth factor is the influence of the belief in myticism and magic. This factor is also acknowledged by another key informant, the Kelantan State Mufti. He opined that the Malay community is often related to the

belief in magics. With such beliefs which is perceived to be magical and peculiar is often honoured by its enthusiasts. Zulkifli as quoted in Firdaus Khairi (2008) also shares the same opinion about this factor who stated that there are amongst the Malay community those who perceive religion as something extraordinary. As such, there are some members of the Malay community who explore spiritual knowledge and mysticism with the excuse of deepening their own religious knowledge. Often, at the end of their journey into mysticism they find themselves entrapped in deviant teachings (Philips, 2005). Soon, they start worshipping their teachers to the level of sinless from any form of wrongdoings.

The source of belief in mysticism and magic is also shared by several key informants, including the Kelantan State Mufti who stated that the Malay community is often related to the beliefs in magics. Such beliefs lead to certain things perceived as extraordinary or magical being worshipped by its enthusiasts. This phenomena occurs in the Malay community without any serious prohibitions to the extent that something magical is perceived as of higher additional value.

In explaining the issue of mysticism and magic, Badli Shah Alauddin stated that one of the sources is the community's inclination to interact with external invisible or spiritual world such as interacting with the strange powers in the forests, seas, oceans and so on. According to him, the situation has worsened and become more difficult as some preachers themselves hold to the beliefs in mysticism and magic. Such actions and behaviors indirectly endorse the continuity of distorted beliefs practices within the Malay community.

The belief in mysticism and extraordinary is also supported by the discussion in a writing on Crypto teachings. The research found that the Malay community is prone to be influenced by someone who is able to portray as possessing extraordinary or magical power. As an example, in the Crypto teachings, a teacher often exhibit magical powers to his or her followers such as the ability to jump up 10 feet while performing the Malay art of self-defence and the skills of making predictions (Muhammad & Abdullah, 1983).

#### 4. Conclusion

As a conclusion, it can be deduced that all the four factors as discussed in this article are the major sources identified as the catalysts to the spread of heretic innovations in the Islamic faith. These four sources need to be checked by the relevant authorities and the whole Muslim ummah as well. If these sources are allowed to flourish in the Malay community, it might cause concern that these would result in serious impacts on the faith of the Muslim ummah. The lack of religious knowledge, ignorance, influence of Shamanism and the belief in mysticism and extraordinaries should be checked and curtailed in the best way. All the preachers should be creative in their approaches when interacting with those involved in distorted beliefs. The use of unwise approaches will result in their noble attempts to be perceived and responded coldly by those involved. It should be reminded that the bigger impact from distorted beliefs is the threats from heretic innovations in the Islamic faith capable of shaking the faith of the Muslim society.

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# Technical and Vocational Education in Malaysia: Policy, Leadership, and Professional Growth on Malaysia Women

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Received: April 30, 2015 Accepted: June 28, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p153

URL: <http://dx.doi.org/10.5539/ass.v11n24p153>

## Abstract

Technical and Vocational Education (TVE) is facing new challenges in an increasingly competitive global context. The continuing under representation of women in engineering fields at semi-skilled and high-skilled levels is receiving renewed attention. This paper explores women as part of special population in Malaysia who desire to be placed as equal to men in Malaysian context. Policy, leadership, and professional growth are discussed comprehensively to support Malaysian females' involvement in engineering disciplines, one of Technical and Vocational Education (TVE) programs in Malaysia. This paper also explores issues and challenges facing by Malaysian women in order to be recognized by the sub-ordinates, peers, leaders and society within male-dominated professions and environment.

**Keywords:** technical and vocational education, gender issues, policy, leadership, professional growth

## 1. Introduction

Malaysia is seeking to improve the quality of life in its society through developing their workforce to compete in the global economy. Advances and improvements have been made through Malaysian education and industry for "greater economic and social development" (Kefela, 2010). Female participation is emphasized as part of the national agenda providing opportunities for women to increase their positions in Malaysian society and to contribute their knowledge and skills towards the national growth and development (Malaysia Government, 2006). This initiative was implemented to ensure that women have equal opportunities to provide contributions to the economic development of Malaysia.

With rapid changes in technology, engineering is one of the preferred disciplines in Malaysia. Engineering positions are increasing in industrial organizations in Malaysia (Ismail, 2003). Malaysian female students are motivated to pursue their education at universities as chances to be employed in engineering professionals and technical fields increase. Malaysian government provides opportunities for women to acquire advanced skills to be competitive in the engineering field (Malaysia Government, 2006). According to Ismail (2003), people in Malaysia still perceive engineering as a male-dominated profession and women are stereotyped as unskilled and incompetent as engineers. She stated that "Malaysian female engineers accounted for less than 10 percent of the total professional workforce despite the encouraging number of Malaysian females enrolling in the field of engineering, locally and abroad". Due to that the inequity of hiring practices in the engineering field, high percentages of Malaysian females graduating from the engineering field become teachers (Ismail, 2003). Even though the women lag in numbers when considering the total number of people employed in the engineering arena, issues surrounding the area of gender equality within the engineering field are often debated including in educational setting (Rodgers & Boyer, 2006).

This paper explores women as part of a special population in Malaysia who desire to be placed as equal to men in Malaysian society. Policy, leadership, and professional growth will be incorporated to support Malaysian females' involvement in engineering disciplines, one of Technical and Vocational Education (TVE) programs in Malaysia.

## 2. Background

Malaysian women comprise almost half of the Malaysian population (Haque & Chandran, 2004). In general, women in Malaysia are seen as being soft, gentle, and compassionate while preserving the traditional values and

culture at home and in the community (Noor, 1999). Traditionally, the Malaysian women are perceived as mothers, housewives, caretakers, and caregivers. Malaysian women are responsible to take care of children, complete house chores, take care of laundry, cook meals for the family and ensure family needs are met. The Malaysian women's life is also impacted by different religions, beliefs, values, and cultures within the Malaysian society (Noor, 1999).

Malaysian women's involvement and support of engineering started prior to Malaysian independence. Ahmad (1998) claimed 43.4 percent of the workforce was comprised of Malaysian women in engineering especially manufacturing field as semi-skilled assembly workers. This represents one of the highest rates of women in engineering among the Asian and Pacific industrialized countries. Malaysian female students are entering the engineering field in higher numbers as the number of engineering programs increases in public polytechnics and universities in Malaysia. The first public polytechnic in Malaysia was established in 1969, where it trained secondary school graduates to become semi-skilled professionals such as technicians and mechanics for government and the industrial sectors in Malaysia (Mustapha & Abdullah, 2001). Although polytechnics programs were offered at a certificate level, most of Malaysian polytechnic graduates pursued their degree level at Malaysian public universities. Female students in engineering were estimated at 51.3 percent of the total enrollment in the Malaysian universities in 2000 (Malaysia Government, 2003). Female participation in engineering increased when Malaysia sought to drive its economy from agriculture into industrial sectors (Azman & Ahmad, 2006). Since then, universities in Malaysia offer various new engineering programs to meet the requirement of job demands in engineering field. These new changes have had a positive impact on Malaysian society where the participations and contributions of Malaysian women in engineering are significant.

Malaysia experienced a bad economic downturn reflected by the global economic crisis of the late 1990's (Ahmad, 1998) where Malaysian women were also affected and oppressed at those particular years. Although gender bias and discrimination were acknowledged publically, most Malaysian women workers were the first to lose jobs especially in the engineering sectors. This showed that the industries preferred male contribution and segregated engineering jobs according to gender (Ahmad, 1998) and this gender-specific impact may imperil future development in Malaysia. Nevertheless, Malaysian government is aware of these critical issues. Hence, continuous initiatives have been made to improve education system as well as work opportunities for Malaysian women through the establishments of national developmental policies, plans, and objectives. The Malaysian government seeks to reinforce the role and status of women in Malaysian socioeconomics, including education (Azman & Ahmad, 2006) to help and encourage Malaysian women in sharing their responsibility which also shall increase their contributions to the Malaysian economic development (Ministry of Women, Family and Community Development, 2011). Accordingly, these endless efforts and initiatives can promote women's right and raises public perception on the importance of the role of women in Malaysian.

### **3. Technical and Vocational Education**

Technical and Vocational Education (TVE), Vocational Education, Career and Technical Education (CTE), Workforce Education; might sound like different terms but they all share similar objectives. UNESCO-UNEVOC (2010), defined TVE as "the acquisition of knowledge and skills for the world of work". The name has been change over time to shed the stigmatism associated with "Vo Tech" in all its names and to promote TVE as a first class educational system. The stigma is generally global. In China, for example, the culture perceives TVE to be a platform for students who are not able to excel in academic performance. Because of these perceptions Chinese parents prefer their children to get their education at schools and universities which are not vocationally oriented (Velde, 2009).

In Malaysia, students who are not accepted at academic schools and universities can pursue their studies at technical and vocational institutions not as a first choice, but a last result leading to perceptions of failure. Today, the negative perceptions toward TVET have gradually changed where the Malaysian government is making an effort to re-brand and improve TVE programs to reverse the negative stigma and be accepted by the society as vital for driving economic development and individual achievement (Mustapha & Abdullah, 2001). For example, engineering education is recognized as part of TVE (Haas, 1999). Also, the Malaysian government has provide equitable and transparent TVET support to all educational institutions which allow students from various levels of academic performances to choose TVE for their career pathways (Ministry of Education Malaysia, 2013). Although those initiatives play a significant role in building awareness of the importance of TVET among Malaysian, yet, there are many aspects that need to be highlighted to ensure the nation can deeply understand the specific role of TVET in improving national economic development and social inclusion.

Dennis and Hudson (2007) stated that in the U.S., TVE has been designed to equip students to become high

skilled workers to directly support the economic growth of the country. TVE programs in the U.S. are offered at certificate and diploma programs, especially at community colleges. Therefore, because it is not prestigious to go through these programs, TVE programs in the U.S. are not viewed with the preference that degree programs are seen through; except perhaps by individuals who are from families of lower socio-economic status.

Regardless of negative perceptions of TVE in some countries, Germany and other European countries have different perspectives on TVE. TVE programs are seen as a primary factor in the human resource development and a main contributor to European economic success (Wu, 2003). European countries were built on the principles of lifelong learning and occupational profiling, which aligned with the development of TVE systems (Wu, 2003). Historically, industries facilitate supportively European national reforms, as the industries have been good collaborators with the government since the very beginning of TVE systems in many European countries (Wu, 2003).

According to Dewey, Montrosse, Schroter, Sullins, and Mattox (2008), the TVE system has been changing rapidly since its presence in education based on work related issues with business and industry. There are also students who give credit to the TVE institutions for offering programs which are in convenient and accessible places and support their academic success of obtaining knowledge and skills required by the industries (O’Gara, Mechur, & Hughes, 2009). In other words, TVE graduates have more opportunities in getting high-skilled jobs compared to others with lower levels of technical and vocational skills attainment.

#### **4. Issues on Female Students in Engineering Programs**

Female students tend to choose engineering programs because of the perceived job opportunities upon completion of their studies. Engineering is a viable choice in today’s market (Shivy & Sullivan, 2005). Moreover, family influence female students to pursue their studies in engineering field (Anderson & Gilbride, 2007). Even though Malaysian female students’ enrollment in engineering programs is equal with or greater than male students, the female students have different motivation, different attitude, and different responses in regards to what they learn about engineering (Jelas & Dahan, 2010). Holvikivi (2007) commented that “engineering education may be a particularly difficult multidisciplinary field because of the differences in epistemological views of learning sciences, and engineering”. Although female students’ academic achievement in engineering is better compared to male students, active participation continues to be a concern as female students claim that teacher pays more attention to opposite gender (She, 2000). If teacher continues to treat students based on gender-based differences, it will slowly create a hostile learning environment for the female students. Above all, female students will likely prefer non-engineering to create their own future career path.

There is also a common belief among teachers who claim engineering is not a female’s job which can “damage the self-esteem and motivation of female students” (Erden, 2009). However, Subrahmanian (2005) claimed “equality of treatment as well as equality of opportunity” between male and female students is important to overcome the differences between their learning outcomes. In education, equality “refers to a situation in which students receive the same quality of teaching and enjoy the same type of school facilities, textbooks, and teaching material” (Magno & Silova, 2007). Therefore, the gender-specific impact in education should be avoided for students to experience deep learning and enjoy what they learn in class.

Gender gap and gender preference are also factors that impact female students to choose engineering as their career path. Malaysian female students comprise “12 percent in mechanical engineering, 22 percent in electrical engineering, and 48 percent in civil engineering programs of total enrollment in secondary technical schools in Malaysia” (Malaysia Government, 2003). Malaysian female students prefer to enroll non-engineering programs such as hospitality, technology, business programs compared to engineering (Malaysia Government, 2003). Recently, the number of Malaysian female students in engineering has increased, yet they did not choose engineer as their life profession due to pressure from home and work (Peramayah, 2012). Therefore, Malaysian female students should have equal rights and opportunities in engineering education and careers. Recommendations for policy, leadership, and professional growth are discussed to improve engineering education for female students in Malaysia.

#### **5. Policy**

The implementation of the TVE system in Malaysia might not be as advanced as other developed countries’ systems, but the Malaysian government is actively enhancing the quality of individual systems toward global economy and development. Conversely, TVE policy regarding equity among gender is not formally written by the Malaysian government. Malaysian government should consider a reevaluation of TVE written policy in regards to gender equality. For this reason, this would provide a structure to improve Malaysian support for female students’ position in the engineering arena. According to Haddad (1995), “A policy change is normally a

response to a problem or set of problems in the sector, and must, therefore, start with an appreciation of the educational sector and its context". In contrast, policy is also a paradox, a trouble that is difficult to solve because it can be created as an unintentional caused by people who have a lot of political agendas (Stone, 2002). Yet, Fowler (2009) affirmed that "most education policies are not policy issues at all" because the education policies are more concerned with organizing information than student socialization in education. Also, she claimed that people who have influences in education policies are among those who have close connections within the educational system.

Table 1 shows types of power to influence that education policy. Seven actors are listed, which are the main stakeholders of education settings including governance bodies, school administrators, teachers, support staff, students, parents, and public (Fowler, 2009). The policy actors are required to know their roles and tasks to execute education policy more proficiently. They also should understand and identify types of power and power resources so that they can encounter any problem occurred in the process and solve it according to their level of responsibilities (Fowler, 2009). Friedman (2008) asserted that problem can be a big issue in any organization, and it need to be considered comprehensively to a have better solution. Education policy in Malaysia may not similar with what is illustrated in Figure 1, but it can be an effective model to emulate the process of identifying actor's power in Malaysian TVE. With this approach, the process of evaluating gender policy within TVE will be more successful. The process of policy evaluation has seven main steps; (1) determine the goals of the policy, (2) select indicators, (3) select or develop data-collection instruments, (4) collect data, (5) analyze and summarize data, (6) write evaluation report, and (7) respond to evaluators' recommendations (Fowler, 2009). The policy evaluation is a straightforward process to meet the goal of the current policy.

Table 1. The power of major actors in educational settings (Fowler, 2009)

Actor	Types of Power	Power Resources
Governance bodies (e.g., legislatures, school boards, department of education)	Economic dominance	Access to money
	Budget proposal	Control over information
	Budget adoption	Information
	Tax policy	Official positions
	Withholding funds	Organization
School administrators	Legal authority	
	Adoption of laws, rules, policies	
	Court decisions	
Teachers	Economic dominance	Control over careers and working conditions
	Work stoppages	Control over information
	Work slowdowns	Information
	Tenure (job protection)	Official positions
	Legal authority	Patronage
Support staff	Control over classroom	Visibility
	Economic dominance	Control over information about classroom activities
	Work stoppages	Numbers
Students	Work slow downs	Official positions
	Force	Organization
	Physical (i.e., threat of disruption, actual disruption, fights)	
Parents	Psychic (i.e., heckling, verbal insults)	
	Persuasion	Numbers
Public		Organization
	Economic dominance (e.g., voting on funding issues)	Numbers
	Legal authority (e.g., voting in school elections)	Organization



The ideologies practiced within TVE institutions in Malaysia impact Malaysian female students' opportunities to enroll engineering programs. Stereotypes of women's occupations in Malaysia include domestic jobs, nurses, teacher, and housewife in textbooks and men are perceived to have occupations in line with engineers, politician, and other profound professions (Haque & Chandran, 2004). Malaysian government should take an initiative to revise and review textbooks which portray hegemony and oppression of Malaysian women related to their career choices. McLaren (2009) refers hegemony as "the maintenance of domination not by the sheer exercise of force but primarily through consensual social practices, social forms, and social structures produced in specific sites such as the church, the state, the school, the mass media, the political system, and the family". Thus, women should be represented as equal character as men in the textbook. The Malaysian education system should consider issues of gender bias and stereotyping of occupational roles because the awareness of bias is the first step to reduce and eliminate the issue of gender bias in Malaysia.

Engineering educators should responsible to review and redesign the existing curriculum to incorporate equality instead of only the male perspectives that the field has been dominated by for years in the Malaysian education system. Engineering programs need to be reformed exclusively to meet the expectations of the students as a whole and requirement of industrial needs. Social, environmental, political, and national economy considerations need to put into account as well as technical aspects towards gender inclusiveness in engineering field (Armstrong & Leder, 1995).

## 6. Leadership

Teachers are leaders to their students. As leaders, teachers are responsible for their students. Salleh, Sulaiman, and Frederiksen argued being a leader with good vision would make a difference but how they accomplish the vision is another issue. Thus, engineering teachers should possess the qualities of integrity such as being transparent, honest, cooperative, reliable, and purposeful in actions and be good leaders to their follower (Ciulla, 2003). Discussion about gender differences may create arguments and conflicts among students. First and foremost, it is vital for engineering teachers to create a positive classroom atmosphere so that students will feel safe and comfort when gender inequality is discussed in the classroom (Timpson & Doe, 2008). Along the process, engineering teachers should use the strengths of their emotional intelligence to enhance their leadership style to overcome any difficulties occur because "leaders have always played a primordial emotional role" (Goleman, Boyatzis, & McKee, 2002).

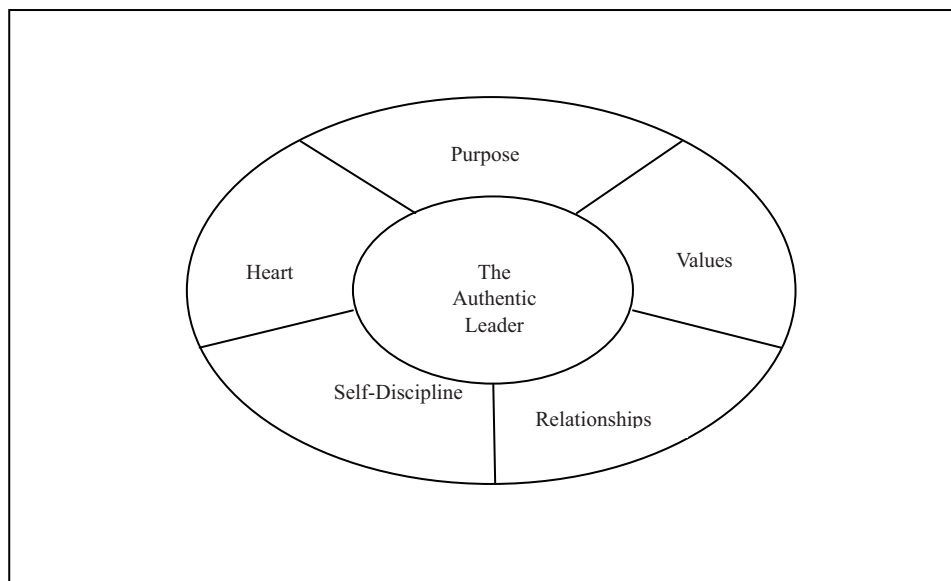


Figure 1. Essentials dimensions of authentic leadership (George, 2003)

Engineering teachers also can choose authentic leadership to make any change and movement in teaching gender to their students. Purpose, values, relationship, self-discipline, and heart are the essential dimensions of authentic leadership that engineering teachers can consider before they execute on what they plan for their teaching (George, 2003). Figure 1 provides an overview of implementing authentic leadership, which can be applied by

engineering teachers. This model is an ideal method that engineering teachers can continuously enhance their leadership style in teaching. Engineering teachers can go back and forward the process of their roles and responsibilities as it interchange to one and another based on their ability and capability to fulfill the requirements at present time (George, 2003).

*Purpose:* Engineering teachers need to clear their mind to identify what is the main purpose to incorporate gender into engineering courses. All obstacles and demands along the process can be solved quickly by evaluating based on the main purpose.

*Values:* All decision making process will be based on the gender values the engineering teachers embed in their teaching.

*Relationship:* Having good relationship with students, engineering teachers can understand better students' problem.

*Self-Discipline:* Self-discipline is one of predictor to success. Therefore, engineering teachers need to practice to be sure gender issues can be managed in difficult situations.

*Heart:* Engineering teachers can be more empathy to other people, considerate, forgive, and pardon others who make negative judgments about their teaching.

It is understood that every teacher has a unique and specific set of traits in their own leadership styles. Nevertheless, this does not mean that they could not connect the dots from the challenges to their power, self interest and influence in educating gender differences to their students.

## 7. Professional Growth

Teachers play an integral part in the change of negative perceptions of female students in education. Male students should be taught gender sensitivity at school and teachers need to allow female students to have an equal chance in the learning process (Hawley, 2007). It is also important to discuss about gender equality to the students because female students can share their perspectives and experiences to promote women's right in the classroom setting (McKeachie & Svinicki, 2006). Mortenson and Relin (2006) believe people will learn best if they have multiple perspectives about human diversity. Hence, gender equality among male and female students will enhance the education and professional systems of Malaysia.

To help female students to reach their full potential as engineering students, teachers can assign students to compile their own list of engineering definitions, write short synopsis of famous Malaysian female engineers which relate to engineer's work, success and challenge in order to become good engineers (Roman, 2008). This activity would help male students to recognize that Malaysian women are actively participating in supporting Malaysian economy. Engineering teachers in Malaysian TVE institutions can also take an active role to enhance and build positive motivation to female students who are entering engineering fields. Female teachers can be a role model to female students. Teachers also must know how to apply their knowledge and skills on engineering. According to Iskander and Kriftcher (2008), Workshop in Instrumentation, Sensors, and Engineering (WISE) is suitable to be used to teach engineering because it requires teachers to utilize sophisticated and advanced teaching materials and equipment such as instrumentations, prototypes, modules, and machineries.

Not only that, Malaysian teachers should have awareness of the latest advances in technology and engineering. Furthermore, teachers can invite female engineers as guest speakers in the classroom to share their experience, obstacles in their professions and discuss possible solutions with common problems in engineering work environment (Roman, 2008). As a result, teachers can develop and improve their teaching to support today's requirement on engineering. Also, teachers can apply Learning Style Inventory (LSI) by David Kolb to help students to find the best fit learning approach that match with their thinking and attitude about engineering (Holvikivi, 2007). Simultaneously, LSI guide teachers to improve their teaching strategies, suitable with students learning. Teachers also can give female students assignments and projects to explore distinct sciences, technology, and engineering (Roman, 2008). This could give a good start for female students who have difficulties in understanding engineering field in general so they can have clear picture of engineering world and how science, technology and engineering can be differentiate to one and another.

## 8. Conclusion

Women are equally as important as men in making substantive contributions toward sustainable growth and development of a country, including Malaysia. Hence, Malaysian women should be given more opportunities especially in engineering arena to help reduce and eliminate negative perceptions of women's capability in male-dominated professions and environments. Gender inequality at schools and colleges could cause unsatisfied,

rebellious feelings, and violent environment that may decrease the number of Malaysian women involvement in engineering. Therefore, the discussions of policy, leadership and personal growth contexts are important to find good feasible solutions on the issue of gender bias in Malaysia society. Evaluating the power of major actors in educational settings enables people to indicate their roles and functions according to level of responsibilities can motivates them to act appropriately to reduce inequalities between male and female in engineering fields. Also, integrating authentic leadership which comprise of purpose, values, relationship, self-discipline and heart in teaching may help teachers to make important changes in creating positive environment for female students in classroom. By doing so, it will empower the voice of female students in learning environment. Besides, engineering teachers can improve their teaching strategies by incorporating Learning Style Inventory (LSI) and Workshop in Instrumentation, Sensors, and Engineering (WISE) to teach engineering as it requires teachers to utilize sophisticated and advanced teaching materials and equipment that can accommodate the diverse needs of female students. However, regardless of all the aforementioned suggestions, efforts need to be made in every facet within the Malaysian society from every level and status to encourage greater participation of women in engineering. And, Malaysian women should not let gender issues influence and hinder their ability to engage in male-dominated professions so that it can inspire young female to continue the legacy of women's contribution in engineering.

### Acknowledgements

Thank you and gratitude to Universiti Tun Hussein Onn Malaysia (UTHM) [Vot R041] for the support given in making this study a success.

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# Performance Appraisal and Training and Development of Human Resource Management Practices (HRM) on Organizational Commitment and Turnover Intention

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Received: May 3, 2015 Accepted: June 15, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p162

URL: <http://dx.doi.org/10.5539/ass.v11n24p162>

## Abstract

It is widely agreed that the impact of human resource management (HRM) practices can create comparative advantage for the organizational performance when organizational commitment matters. On the contrary, turnover has become a trend and it is at rise in the current working environment. The main intention of this study is to demonstrate a relationship between HRM practices and organizational commitment and its impact on turnover intention. Data of 75 employees from several different industries were collected throughout Klang Valley in Malaysia. The outcome reflects a correlation among Performance Appraisal and Training and Development (HRM practices) with organizational commitment which in turn contributed an inverse relationship with employee turnover intention. The greater commitment developed among employees will improve the organizational effectiveness through maintained skilled and experienced employees thus reducing turnover intentions. Therefore, this study dedicates to the knowledge on the impact of HRM practices on organizational commitment and turnover intention. The data results can serve as a reference or guideline when conducting relevant studies in the future.

**Keywords:** organization commitment, training and development, turnover intention, human resource management practices, performance appraisal

## 1. Introduction

Human Resource Management's (HRM) notion stresses upon the aspect that human capital employed in any particular organization must be considered as the organization's asset instead of cost. Organizations, in general, employ a diverse set of human HRM policies and procedures specifically related to recruitment, training, development, appraisal and organizational commitment in order to synchronize the HRM policies with the core business objectives of the organization (Huselid, 1995; Meyer & Smith, 2000). Research and studies, pertaining to the (direct and indirect) effects of Human Resource Practices towards organizational performance, conducted in many developed countries exhibited indications of a noticeably encouraging relationship between the human resource management practices of an organization and the organization's overall performance (Applebaum, Bailey, Berg, & Kalleberg, 2000; Singh, 2004).

Most of the research and studies undertaken in the field of HRM in the past were conducted by asking the human resource related personnel to answer the questions related to the practices in place for the purposes of recruitment, training, development, retention and performance appraisal methods but very few studies had focused on the importance of an individual employee's perceptions regarding the effectiveness of the devised HRM policies on the overall performance of an organization (Boselie & Wiele, 2002). Previously, studies conducted at organizational level had mainly focused the effects of the HRM practices on the numeric indicators (at organizational level) such as total production, increase in sales, revenue generation and others (Arthur, 1994; Huselid, 1995), whereas not much research had been conducted with the aim to determine how would an

individual perceive and act upon the HRM practices with regards to his/her behavior and commitment towards the achievement of the goals of the organization (Batt & Valcour, 2003; Hemdi & Nasurdin, 2006). HRM practices that may be helpful in gaining commitment of the employees towards the organizational goals and the effect(s) of those practices in terms of reduction in employee turnover are the aim of this study.

One of the most critical HRM practices is performance appraisal. This is because the appraisal of an employee would either shape a satisfied frame of behavior after being appreciated or a frame of dissatisfaction after not being appreciated. In addition to performance appraisal, training and development of employees also shape their engagement and commitment towards the organizational development (Arthur, 1994; Huselid, 1995). Training and development programmes are undertaken to make the employees capable enough to perform the assigned tasks efficiently and effectively and thus, employees feel more involved towards their jobs.

In addition to that employee turnover has become a major problem that faced by every organizations in many of the Asian country such as Malaysia, Singapore, Hong Kong, Taiwan and South Korea (Khatri, Budhwar, & Chong, 2011). Barnard and Rodgers (1998) states that the monthly average of resignation rates in organization in Malaysia, South Korea and Taiwan were 3.4%, 2.9% and 2.7% respectively. Moreover, employee turnover also incurs a huge burden to the organizations in terms of financial cost (Kaye & Jordan-Evans, 2005).

The highest turnover crisis ever recorded in Malaysia was during the year period of 2009-2010 on average 18.3% which forced the entity to conduct multiple employee loyalty programs as consequences of failure to retain their valuable employees (Ken, 2013). Therefore, it is extremely important to address the problems above and to find out preventive reasons that initiates turnover intentions.

To recapitulate, this study is intended to look at the effects of performance appraisal, and training and development on the behavior of individuals working in an organization and, in turn, how such behavior affects the organization as a whole and commitment of employees towards the organizational goals which leads to employee turnover. Two main objectives of this study are: (1) to examine the effects and the extent of relationship between the above mentioned HRM practices (of performance appraisal, and training and development) and organizational commitment in Malaysia; and (2) to examine the extent of relationship between organizational commitment and an individual employee's turnover intention in Malaysia.

## 2. Literature Review

### 2.1 Human Resource Management Practices

Human resources are significant in establishing and sustaining competitive advantage for the enhancement of organizational effectiveness since both are priceless, unique and irreplaceable resources. The definitions of human resource can be categorized under two broad strands which are generalist and distinctive. Based on the generalist perspective, human resources refer to a group of human capital controlled in a straightforward manner through employment by the organization which constitutes a source of competitive advantage (Machado, 2015). Meanwhile, the distinctive approach emphasize on employee skills, knowledge, abilities, attitudes, experience and wisdom..

Human Resource Management can be seen as the utilization of employees to gain competitive advantage, particularly through human resource practices (Dzansi & Dzansi, 2010). Majumder, (2012) regards HRM as organization's philosophy, policies, and procedures linked with the management of people HRM as a customer prioritized management practices which regards the employees as the essence of the organization that focuses on attaining organizational goals. According to Swathi, (2014), management is said to be responsible for all practices and decisions that directly affect the employment relationship. Essentially, the conduct of human resource management aims to optimize the effectiveness of its employees in order to maximize organization's productivity.

Human resource practices is defined as the planned human resource deployment and the organization's progress is targeted towards reaching the goals through efficient management of human capital (Babu & Reddy, 2013). In overall, HRM practices can be concluded as a tool implemented by the organization that helps to motivate and retain them through efficient practices, policies and philosophy (Schuler & Jackson, 1987; Singh & Jain, 2014). Effective HRM will results in acquiring and retaining qualified employees, motivates them to optimize performance and assists them to meet their psychological and social needs. This leads to the establishment of long-term commitment among employees to maintain employment relationship with the organization.

There are numerous researches study about the relationship between HR practices and organizational commitment by using different types of HR practices. Jeet and Sayeeduzzafar (2014) studied five HR practices such as employee training, performance appraisal, teamwork, employee participation and compensation and

found that there is a significantly positive relationship between the HR practices and organizational commitment. Similarly, Bal and Bozkurt (2014) has studied about six HR practices such as recruitment and selection, training and development, performance appraisal, work conditions, compensation rewards and involvement. Prabhakar and Ram (2011) also indicated that job design and employee empowerment is positive associated with organizational commitment. The study of Umoh, Amah & Wokocho (2014) reported that there are positive relationship between employee benefits and measures of continuance commitment. The study also revealed that there is a significant relationship between pay structure and continuance commitment. Hong, Hao, Kumar, Ramendran and Kadiresan (2012) explained that management should not ignore the importance of human resource management practices on fulfilling the expectations of employees as it creates great satisfaction and commitment on job.

As stated above, this study hypothesize the factors used in the previous literature of HRM practices, which consists of performance appraisal, training and development impact organization commitment hence, retaining the employees and minimizing voluntary turnover. The description of each practice is offered in the following section in the following section.

### 2.1.1 Performance Appraisal

Performance appraisal in Malaysia has been practiced and implemented a few decades ago and the proof is listed in several articles such as Ahmad and Ali (2004), Kumar (2005), Poon (2004). They observed an important relationship between the implementation of performance appraisal and organizational commitment in Malaysia.

Given the current circumstances, organizations are focusing and utilizing on one specific developmental HRM practice -Performance Appraisal that potentially affects organization's efficiency and performance (Ikramullah, Shah, Hassan, Zaman, & Khan, 2011) As a matter of fact, it has been used as tool in the process of performance appraisal for enhancing employees performance, distributing rewards and enhance competencies. In addition, organization is able to discover the employee strengths development needs (Moulik & Mazumdar, 2012). Although it is costly to conduct performance appraisal, organizations still adopt this practice as it serves as a fundamental organizational decisions in certain situations where promotions, bonuses and training needs are determined which potentially creates work motivation and commitment to the organization. Therefore the performance evaluation practice is an inherent and inseparable part of the organization (Poursafar, Rajaeepour, Seyadat, & Oreizi, 2014; Obeidat, Masa'deh, & Abdallah, 2014). This is in line with the statement in the study of Getnet, Jebena and Tsegaye (2014) which proposed that performance appraisal is commonly adopted by organization in order to incentivize and measure the performance of their employees. Furthermore it is also revealed that this performance evaluation practice can used to detect employee's perception, preferences, beliefs and developmental areas with regard to the organizational goals. As a results, they are valued and seen as part of organization team. Thus the employees may develop a greater commitment to their organization (Roberts, 2003; Ikramullah et al., 2011).

Several studies support the notion that perception of fairness of performance appraisal is closely related to employee's commitment to their organization (Ikramullah et al., 2011; Getnet et al., 2014; Bekele, Shigutu, & Tensay, 2014). If the employee perceive that the decision are fair, they would reciprocate with high commitment and would be willing to contribute more effort towards the attainment of organizational goals. Employees would reciprocate their perception in the form of low organizational commitment (Salleh, Amin, Muda, & Halim, 2013). Thus, it can be concluded that the perception of employee towards the performance appraisal activities is important since it determine employee acceptance and the development of commitment to the organization (Akhtar & Khattak, 2013).

Therefore, it is vital for organization to be aware of employee's perception of the performance evaluation and make improvement on it in since performance appraisal has a predictive role in changing employee's attitude and affective commitment (Roberts, 2003). Thus, it can be concluded that the perception of employee towards the performance appraisal activities is important since it determines employee's commitment and acceptance to the organization.

From the above discussion the following hypothesis is proposed:

H1: There will be a significant relationship between performance appraisal and organizational commitment

### 2.1.2 Training and Development

In today's world, most of the organizations accentuates on the training and development programs to the employees as one of the human resource practices that is crucial for the evolvment of organizational commitment of the employees. Employee is considered valuable assets to an organization. Therefore it is



fundamental for organizations to invest in programs like training and development to improve their competency and performance.

Training and development deals with increasing and updating the skills, knowledge, competencies and experiences of an employee through a series of training and development programs (Obeidat et al., 2014). It is crucial to equip employees with necessary skills and competencies in today's competitive environment in order to enhance productivity, organization competitiveness and performance.

According to Ahmad and Bakar (2003), training can be described as a planned and systematic effort of employee to achieve effective performance in an activity or range of activities. On the other hand, Noe, Hollenbeck, Gerhart and Wright (2004) expressed that development prepares employees for different positions in the organization and builds their capacity to move into jobs in the future. Therefore, development is mainly about planning and preparing for the changes in the future in relation to unfamiliar jobs, requirements and responsibilities. As for (Lamba & Choudhary, 2013), development is a practical exercise of studying and development by which managerial staff acquire and employ knowledge, skills, attitudes and insights to handle their work efficiently and effectively. It is essential for the managerial staff as an effort to cope up with the complexity of organization and technological. The development also helps to recognize their social and public responsibilities. Kooij, de Lange, Jansen, & Dijkers (2008) suggested that career development could fit workers' needs by creating opportunities for new job and enhancing their skills (Riaz, Idrees, & Imran, 2013). This supports a comparative study has been done between Malaysia and European Union (EU) on various factors where the findings implicits that training aims to bridge the gap between job requirements and present competence of an employee in terms of job security and skills of employee's being employed (Ramendran, Supian, Kadiresan, Kumar, & Rethinam, 2014).

Lambert, Vero and Zimmermann (2012) explained that development is able to increase employee's self-fulfillment where their capability at work can be rejuvenated and able to absorb and preparing for more obstacles. So, combination of training and development is an endless process to make sure their employees keep improving all the times.

When an organization provides trainings, it usually lead to greater commitment from the employee which can be viewed such as "psychological contract". It is reciprocal attitudes and behaviors from the employees based on their perception to the effort of the organization in improving their skills, competencies and providing them future development opportunities (Jehanzeb, Rasheed, & Rasheed, 2013; Dockel, Basson, & Coetzee, 2006). It is argued that employees tend to perceive that organization make investment in their training as sign of continuity in their jobs and in higher compensation based on human capital theory (Scheible & Bastos, 2013; Maurer & Rafuse, 2001).

Previous studies proved training contributes to intangle results such as high organizational-based self esteem, enhanced organizational commitment and improved participant knowledge and ultimately could affect employee retention and enhance organizational effectiveness (Babu & Reddy, 2013; Jehanzeb et al., 2013; Armstrong, 2006; Ahmad & Bakar, 2003; Bartlett & Kang, 2004;). It is further supported by Ashar, Ghafoor, Munir, and Hafeez (2013) that organization required to manage training on employees with integrity which can enhance the commitments and prevent intention to leave.

The above discussion highlights inconclusive views on the relationship between training and development and organizational commitment. Thus the following hypothesis is proposed:

H2: There will be a significant relationship between training and development and organizational commitment

## *2.2 Organizational Commitment*

Several constructs of organizational commitment has been conceptualized over the years. According to Lee and Jamil (2003), there are various definitions of organizational commitment are found in the literature. The various definitions and measures of organizational commitment share a common theme which is the linkage of an individual to the organization.

On the other hand Organizational commitment is said to be associated with human relation issues such as employee performance, job satisfaction, turnover, absenteeism and achieving organizational goals and objectives thereby it is extremely significant to organization (Memari, Mahdih, & Marnani, 2013; Bakan, Büyükebeşe, & Erşahan, 2011).

According to (Smother, 2008), organizational commitment can be conceptualized as the feeling and behaviour employee's display by the way they exhibit behavioural activities. In a simple word, it is the binding of individuals to behavioural acts (Meysam & Mohammadi, 2013; Javad & Davood, 2012) opined organizational

commitment to accordance between an individual's goal and the organization where an individual identifies the relative strength and extend to attempt to represent the goals of an organization. Salleh, Nair and Harun (2012) viewed organizational commitment as a psychological state that connects an individual to the organization, which reduces the occurrence of turnover. In the study of Prabhakar and Ram (2011), organizational commitment is defined as the psychological attachment formed by an employee in relation to his identification and involvement with the respective organization. It emphasizes on the linkage between employees and the organization. Similar findings from the study of Aries (Miradipta & Jie, 2013; Beebe-Mocilac, 2007) also focuses on a member's relationship with an organization where individual yields an emotional attachment that brings up commitment with a particular organization.

Meyer and Allen (1997) further describes organisational commitment as the backbone of an individual's attachment to the organization, characterized by strong beliefs, acknowledgement and acceptance of the organization's objectives and values. This is being illustrated by the employees powerful urge to maintain and sustain the membership in the organization by exhibiting the eagerness and willingness to exert additional effort for its benefits. Organizational commitment is thought to be the linkage between the individual employee and the organization since individuals think over the extent to which their own values and goals relate to that of the organisation as part of organisational commitment (Faisal & Al-Esmael, 2014). Therefore the higher the level of effort provided by employees, the higher the commitment level will be and consequently leads to higher level of performance and effectiveness of both the individual and the organization level (Sharma & Bajpai, 2010).

### *2.3 Turnover Intention*

At this current stage of globalization era many companies fail to keep hold on to their employees in the long terms. According to (Oluwafemi, 2013), turnover intention explains on the relative strength of an individual's purpose or intent toward voluntary permanent withdrawal from an organization. It is basically a motive or purpose that drives an employee to quit from his or her current workplace. Abassi and Hollman (2000) explain turnover of employee as the rotation of workers between the condition of employment and unemployment, jobs and occupations and around the labor market and firms.

According to (Abdali, 2011), turnover is the ratio of the number of employees who leaves an organization at a particular time period with the average number of employees staying in that organization at the same time. It is a behavior which describes the process of leaving of replacing employees in an organization. Turnover intention is associated with elements of employee which is; the thought or feeling to quit the job, the intention to find for another job and intention to quitting the job (Carmeli & Weisberg, 2006).

In most cases, turnover intention can happen either voluntarily where employee decides to leave the company by willingly (Schyns, Torka, & Gosling, 2007) or involuntarily, replacing an employee for a job position, mostly without the prior willingness of the employee (Bothma & Roodt, 2013; Price, 1977)

According to (Ibrahim, Usman, & Bagudu, 2013), the rate of turnover varies from institutions to institutions. Sometimes employee turnover is a benefit to an organizations in a positive way. Sometimes it is seen that a poor performer is replaced by a better skilled employee and also a retired employee is replaced by a young one. According to Terez (2000), there are several costs that organizations will incurred in the view of high level of turnover, which are training cost, replacement cost, vacancy cost and separation cost. Employee turnover is e also costly as it incorporates with different cost such as recruitment cost, cost that needs to be covered during the time when there is a vacancy, the cost of training new employees, etc. Turnover occurs for many different reasons. A new job may attracts an employee and force them to leave the old job. There are various factors that leads to turnover intention such as employee's attitude, job satisfaction, commitment, management, compensation offered and their own evaluation and judgement regarding decisions (Berry, 2010).

### *2.4 The Relationship between Organizational Commitment and Turnover*

Organizational commitment is widely accepted as a backbone in strengthening the in order to reduce turnover intention (Mohammad, 2006). It is also believed that employees may feel obliged when employers give some acknowledgement to their efforts by offering them proper benefits and opportunities to excel which subsequently leads to reciprocation; of commitment in the organizations (Shore & Tetrick, 1991; Tansky & Cohen, 2001). Social exchange theory asserts that organizational commitment is expected to lower turnover intentions (Cropanzano & Mitchell, 2005). Employees feels that they ought to remain with and organization and thus they stay by virtue of their belief that it is morally right to do so.

Many scholars have frequently studied on organizational commitment and agreed on the general perception that employee who demonstrate strong commitment towards the organization are likely to leave the organization as

well (Siong, Mellor, Moore, & Firth, 2006; Allen & Meyer, 1990; Tett & Meyer, 1993). Firth, Mellor, Moore and Loquet (2004) mentioned that turnover intention is mainly influenced by employees' commitment and their dissatisfaction from job.

Several studies have confirmed the importance of organizational commitment as a role in influencing intention to leave (Chen & Yu, 2014; Sell & Cleal 2011; Udo, Guimaraes, & Igharia 1997) and organizational commitment's negative relationship to intention to leave (Vecina et al., 2011; Igharia & Greenhaus, 1992; Meyer et al., 1993; Loi, Hang-yue, & Foley, 2006). Furthermore, Wong (2002) present that organizational commitment might contribute more significantly to predict employee turnover intention, which is being agreed by Khatri et al., (2011), where it has resulted a negative relationship towards turnover intentions.

In short, it could be said that turnover occurs due to low or no organizational commitment. An employee leaves one organization because he/she cannot work with it anymore. Based on this scenario, the following hypothesis is developed:

H3: There will be a relationship between organizational commitment and turnover intention

### 3. Methodology

In order to test the hypotheses developed in this study, a self administered questionnaire was designed and collected within the organizations located in Klang valley because of its high population (over 4 millions) is the heartland of Malaysia's industry and commerce. Furthermore a number of researchers have focused their research on Klang valley due to industrialization of the area. A convenience sampling, -non probability sampling technique was used to select employees from organizations which conducted formal performance appraisal and training and development system in terms of utilization and applicability. Convenience sampling was used where subjects are selected because of their convenient accessibility and proximity to the researcher.

Prior to this, the respondents were asked beforehand to ensure if they had encountered such formal processes of appraisal and training and development in their current organization. A survey questionnaire was designed to study the impact made by Performance Appraisal, Training and Development on Organizational Commitment which results in Intention to leave. The respondents were asked to rate based on a 5-point Likert scale and the items were measured accordingly.

In order to ensure reliability of the questionnaire, almost all constructs were measured and adopted from past studies and peer review which is proven to be reliable where the reliability is more than 0.80. The reliability of the construct can be referred in the past researchers articles where the Performance Appraisal items were adapted from Meyer and Smith (2000); Training and Development (Meyer & Smith, 2000); Organizational Commitment (Meyer, Allen, & Smith, 1993); and Turnover Intention (Kuvaas, 2007; Meyer & Smith, 2000). A total of 150 questionnaires were distributed to the employees and only 75 questionnaires were returned, representing an approximately 50 percent response rate. Moreover, a cover letter was attached with the questionnaires to explain the research objectives and encourage employees to participate in the study. The respondents were assured that their responses will be treated with confidentiality and anonymity.

### 4. Results and Discussions

An objective of this research finding was to assess the interrelationships between HRM practices consists of performance appraisal, training and development, and organizational commitment and turnover intention within the context of Malaysia. The strength of the relationships between variables will determine whether the hypotheses are accepted or null therefore, rejected.

Table 1. Correlations among the variables

		PA	TD	OC	TI
PA	Pearson Correlation	1	.730**	.706**	-.509**
	Sig. (2-tailed)		.000	.000	.000
TD	Pearson Correlation	.730**	1	.705**	-.507**
	Sig. (2-tailed)	.000		.000	.000
OC	Pearson Correlation	.706**	.705**	1	-.702**
	Sig. (2-tailed)	.000	.000		.000
TI	Pearson Correlation	-.509**	-.507**	-.702**	1
	Sig. (2-tailed)	.000	.000	.000	

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

Notes: PA = Performance Appraisal, T&D = Training and Development, OC = Organizational Commitment, TI = Turnover Intention. \*p < 0.05; \*\*p < 0.01

Table 1 presents the results of the intercorrelations that have performed on the variables. Based on the analysis, positively and highly correlated obtained between performance appraisal with organizational commitment ( $r = .706, p < 0.01$ ). Both training and development and organizational commitment are positively and highly correlated ( $r = .705, p < 0.01$ ). Furthermore, it was observed that organizational commitment and turnover intention was negatively correlated ( $r = -0.702, p < 0.01$ ) and it indicated a great deal of independence of the two subscales whereby it moderately inter-correlated. Therefore, discriminant validity of the subscales established

Table 2. Coefficients (a)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.088	.341		.259	.797		
1 PA	.487	.134	.409	3.643	.001	.467	2.139
TD	.430	.119	.407	3.622	.001	.467	2.139

a. Dependent Variable: OC

The values of the regression coefficient and constant are given in column B of Table 2. Therefore, the regression equation ( $Y' = b_0 + bX$ ) is as follows:

$$\text{Organizational Commitment} = 0.088 + 0.487 (\text{Performance Appraisal}) + 0.430 (\text{Training \& Development})$$

Regression analysis is a static method to structure mathematical regression which links the dependent variable to one or more independent variables. In order to test the direct effect of the hypotheses, the dependent variable were first regressed onto the performance appraisal variable. The training and development variable was entered as the second step. Baron and Kenny (1986) have introduced the three-steps procedure in estimating the hypotheses.

Table 2 presents the results of the regression models. To test the hypotheses, two regressions are carried individually for the two models. These analyses indicates that performance appraisal is significantly correlated by organizational commitment ( $\beta = .487, p < .001$ ). In addition, training and development is positively influenced by organizational commitment ( $\beta = .430, p < .001$ ).

As refer to the results generated from Table 2, performance appraisal (PA) contributes the highest to the variation of dependent variable (organizational commitment) which is 0.487 indicates the strongest beta coefficient with organizational commitment. The second variable in the ranking is followed by training and development (TD) which is 0.430. Furthermore, these 2 variables p-value is  $< 0.05$  and significant to the dependent variable (organizational Commitment). These variables are training and development (TD) with a p-value of 0.001 ( $> 0.05$ ), and performance appraisal (PA) with a p-value of 0.001 ( $> 0.05$ ) When a p-value is above 0.05, it indicated that these variables are not significant to the dependent variable.

Table 3. Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
dimension0 1	.759 <sup>a</sup>	.576	.564	.57751	.576	48.833	2	72	.000

a. Predictors: (Constant), TD, PA; b. Dependent Variable: OC

Table 3 gives the value for Multiple R which, in the case of just one dependent variable, which is 0.759. The other statistics listed are R Square (the standard deviation of the residuals). The effect size estimated by  $R^2$  is 0.576 (57.6%) and therefore a significant effect. According to Cohen (1988), when the effect size is more than 0.35 is categorized as large. Furthermore the adjusted R square (0.564) is very close to R square (0.576). This indicates the idea of how the model generalises.

Table 4. ANOVA<sup>b</sup>

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	32.573	2	16.287	48.833	.000 <sup>a</sup>
Residual	24.013	72	.334		
Total	56.587	74			

a. Predictors: (Constant), TD, PA; b. Dependent Variable: OC

Notes: PA = Performance Appraisal, TD= Training and Development; Standardized regression coefficients are shown; N = 75. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Table 4 below shows the regression ANOVA, which test for a linear relationship between the variables. F statistic= ratio of the mean square for regression to the residual mean square. From the table, the value of F is significant beyond the 0.01 level. It should be noted, however, that only examination of their scatter plot can confirm that the relationship between two variables is genuinely linear. The observed value of the F-test is 48.833. P-value (sig. = 0.000 <0.01) is very small, there is sufficient findings to support that a positive relationship between HRM practices namely performance appraisal, training and development and organizational commitment. This analysis confirmed that organizational commitment depends on performance appraisal and training and development where these two variables are independent variables.

Table 5. Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
dimension0 1	.702 <sup>a</sup>	.493	.486	.69763	.493	71.107	1	73	.000

a. Predictors: (Constant), OC

b. Dependent Variable: I2L

Table 5 gives the value for Multiple R which, in the case of just one dependent variable, which is 0.702. The other statistics listed are R Square (the standard deviation of the residuals). The effect size estimated by  $R^2$  is 0.486 (48.6%) and therefore a significant effect. Furthermore the adjusted R square (0.486) is very close to R square (0.493) which gives an idea of how the model generalises.

Table 6. ANOVA<sup>b</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	34.607	1	34.607	71.107	.000 <sup>a</sup>
Residual	35.528	73	.487		
Total	70.135	74			

a. Predictors: (Constant), OC

b. Dependent Variable: I2L

Table 6 below shows the ANOVA, which test for a linear relationship between the variables. The F statistic is the ratio of the mean square for regression to the residual mean square. From the table, the value of F is significant beyond the 0.01 level. It should be noted, however, that only examination of their scatterplot can justify the legitimate of linearity between two variables relationship. The ANOVA table shows that this model is fit. When the F statistic is “large” then the between group variation is greater than the within group variation.

Table 7. Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	5.407	.316		17.103	.000		
OC	-.782	.093	-.702	-8.432	.000	1.000	1.000

a. Dependent Variable: I2L

The values of the regression coefficient and constant are given in column B of Table 7. Therefore, the regression equation ( $Y' = b_0 + bX$ ) is as follows:

$$\text{Intention to Leave} = 5.407 - 0.782 (\text{Organizational Commitment})$$

Table 7 illustrates the result for the regression analysis between organizational commitment and turnover intention. Organizational commitment ( $\beta = -.702$ ,  $p < .001$ ) was found to be negatively influenced by turnover intention. Therefore, when organizational commitment is low, the turnover intention is high.

This study suggests the possibility that commitment shown by organizations towards employee through investment of HRM practices allows employees to correspond by being more committed towards the organization. In other words, when employees are provided with better performance appraisal system and training and development, it will lead to higher organizational commitment. This high commitment would help employees to retain in the organization. The results derived from the data collected also indicated that

performance appraisal factor contribute highly than Training and development where the beta value is 0.487. It means that 48.7 % of commitment depends on a performance appraisal system.

One of the implications for managers in this context of conducting performance appraisal and training and development programmes are that the managers should stay attentive to the fact that only those employees who perceive these HRM practices as fair and beneficial would tend to commit and, in turn, have lower turnover intention. This supports the study of (Abdullah et al., 2011) where it is proven that performance appraisal motivates and contributes to turnover intentions of an employee. On the other hand, in the aspect of training, the study of Tannenbaum, Mathieu, Salas, and Cannon-Bowers in 1991 also supports the findings that the level of commitment escalates when they are exposed to trainings as they feel more confident about themselves. The more committed the employees were, the more they desired training. Thus, the performance appraisal and training and development programmes should be tailored in a way to attain maximum possible confidence of the employees. According to Li and Butler (2004), the confidence of employees in the performance appraisal can be gained by getting them involved in the process of making choices relevant to their tasks. In this way, employees would be able to autonomously participate (self-reported performance) in the overall performance appraisal process and would feel satisfied with the performance appraisal procedure (Cawley, Keeping, & Levy, 1998).

The findings also suggest that organizations may deploy HRM practices to employees by providing training courses and other career development programs to enhance their skills and abilities. To gain confidence of the employees in the performance appraisal system, their involvement in the performance management process should be encouraged and they should be well educated about how to monitor and evaluate their own performance. Moreover, provision and reception of feedback regarding performance appraisal should take place at all the superior-subordinate tiers and not only on top notches. Foon, Leong & Osman, (2010) explains further by reinstating employees' low commitment and its detrimental effect if proper strategies, practices are not at practiced which subsequently increases the turnover intention in the organization. In addition, the findings of this study on organizational commitment and turnover is justified with several past studies where there is a negative relationship between organizational commitment and turnover intention (Salleh, Nair, & Harun, 2012; Beheshtifar & Allahyary, 2013; Park, Christie, & Sype, 2014). This means that by the turnover rate can be lowered through the development of committed workforce. The findings of this study explores and contributes to the understanding of the effects of the HRM practices of performance appraisal and training and development on the individual employees in terms of organizational commitment and their turnover intention, and the factors which may affect the perceptions of employees about the extent of fairness and justice in the policies deployed. One of the implications for managers is that how should they incorporate satisfaction factors within the processes of performance appraisal and training and development.

Overall, the investigation regarding the effects of the HRM practices, namely performance appraisal and training and development, on the organizational commitment reveals that these two HRM practices do have a noticeable influence on the commitment of an individual employee towards the organization which, in turn, reduces the turnover intention of the employee to a great extent.

## 5. Conclusion

The above study suggests that the HRM practices not only enhances the productivity and performance of the employees (Kuvaas, 2006), but well-designed HRM practices may also gain commitment of the employees and may positively affect their attitudes and behavior. It is further supported empirically that there is a significant relationship effect between HRM practices and organizational commitment and turnover intention. The implications involve significant impact for organizations in attaining competitive advantage. Organizational commitment and employees' turnover intention may result detrimental repercussions on the organizations due to Performance Appraisal and Training and Development. In a nutshell, implementation of effective HRM Practices is imperative for both employee and organization which can lead to better productivity and performance.

Future studies should be relatively focused on the effects of performance appraisal and training and development on the aspects such as job satisfaction, retention and other suitable variables. Studies should also be conducted to further test the empirical evidence and the intrinsic relationship between the HRM practices and organizational commitment highlighted in this study and how the evaluative performance appraisal gets affected by the development procedures devised by an organization. Researchers can include other relevant variables such as organizational rewards, support from supervisor, work-family support, and favourable condition of job and career development in examining the organizational commitment of employee (Haq, Jindong, Hussain & Anjum,

2014). Moreover, researcher can estimate a wide range of targeted respondents in order to get more accurate and reliable result.

Although this study has drawn attention towards the relationship that exists between the HRM practices and behavior of the employees but the scope of this study is limited. One of the limitations is the sample used, i.e. the group of employees is mainly from Klang Valley. Furthermore, this research was conducted across a large number of organizations and thus, it is difficult to determine the distinct factors of the HRM practices devised by various organizations which may affect the perception of employees towards the equity of the performance appraisal schemes. Another limitation being the variables which have been reported by the employees themselves and the possibility of bias and the resulting distortion in the overall inference cannot be ignored.

### Acknowledgments

The authors of this paper would like to express our sincere thanks to our Universities for providing us with all the facilities and information for the research. Not to forget our valuable participants /respondents who took part in this study.

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# Migration Processes in the Municipal Divisions of the Republic of Bashkortostan

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Received: May 5, 2015 Accepted: July 10, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p177

URL: <http://dx.doi.org/10.5539/ass.v11n24p177>

## Abstract

In the conditions of depopulation, the key factor that defines the dynamics and nature of the changes of the demographic characteristics of the population becomes relocation of the population – migration. Today, migration is the cause of significant transformations of demographic structures that define the future dynamics and qualitative composition of the population. Research of the migration processes is usually a complicated task. Assessment of the spatial mobility of the population is the weakest link within the system of demographic statistics and policy. There are certain peculiarities in studying the process on the level of separate national-territorial and administrative-territorial formations. The goal of this article is to analyze the monitoring of migration processes in a number of municipal divisions of the Republic of Bashkortostan. Based on the results of the monitoring, the author proposes some proven technologies that help deter occurrences of xenophobia, national and religious intolerance, and would promote a painless adaptation of the migrants into the social culture of the region. The author makes conclusion on the need to reevaluate the functions of regulating the migration in the area of formation of municipal policy, development of targeted programs of its realization, and complete information and organizational provisions.

**Keywords:** migration, monitoring, Republic of Bashkortostan, agglomeration, diagnostics, municipal divisions, xenophobia, religious intolerance, adaptation

## 1. Introduction

Migration of the population in the conditions of globalization plays a special role in the life of modern Russia, exerting a significant influence upon its demographic potential, economy, and socio-political sphere. Based on the official data, 10-12 million foreigners arrive in Russia each year, 70-80% of which are citizens of the CIS countries (Pitukhina, 2014). The illegal portion of this number consists of approximately 3.5 million people according to the Federal Migration Service of the Russian Federation (FMS), although according to some expert assessments that number can reach upwards of 10 million (Repyeva, 2015).

In the Republic of Bashkortostan, a rich industrial territory possessing a favorable natural, socio-economic, and cultural conditions for working environment, 154,099 foreign citizens were registered as migrants in 2013. This exceeds the previous year by 43% (Volkh, 2013).

According to the Report on the Results and Main Directions of Activity of the Directorate of the Federal Migration Service of the Republic of Bashkortostan for 2013 and planned period of 2014-2016 "... Work permits are issued to foreign citizens from 31 countries. Over the recent years there is a number of countries that are the most active in supplying workers to the republic's job market. They are as follows: Uzbekistan – 65.6%, Tajikistan – 7.8%, Azerbaijan – 7.1%, Armenia – 6.1%, Turkey – 4.0%, Kyrgyzstan – 2.9%, Ukraine – 2.1%, Vietnam – 1.1%. Foreign citizens and stateless persons who received work permits broken down by industries are as follows: construction – 61.4%, agriculture and forestry – 20.8%, manufacturing – 6.5%, corporate – 4.2%, transportation and communication – 2.5%, other – 4.6% (Lakomova, 2015).

## 2. Discussion

In V. S. Tsyryulnikov's opinion "...The concentration of a substantial number of foreign work migrants, coupled

with the difficulties of supporting the livelihood of a certain part of the region's population severely complicates the socio-economic and ethnic demographic situation, and increases the risk of emergence of sources of social tensions that could grow into an open conflict" (Гайдук, 2014). Although the Republic of Bashkortostan does not represent a place of social tensions between the migrants and the accepting side (Aleynikov, 2014) the specifics of the realization of migration policy within the region should still be constantly assessed.

In addition to this, the measures undertaken in order to adjust the migration processes and their negative consequences at various levels of government administration often do not produce the results expected, as they are conducted without thorough theoretic development, fragmentarily and are realized by the empirical method of trial and error (Mishunina, 2014). This situation has been acknowledged even within the highest political ranks: "It is clear that we need to raise the quality of migration policy of our nation to a new level" – notes Russia's President Vladimir Putin (Путин, 2012)

All of these things point to a pressing need for an in-depth complete analysis and theoretic evaluation of the current migration situation of a specific region in the interests of forming a new theoretic foundation for the government migration policy that would be capable to qualitatively change the migration situation for the better (Makarova, 2014)

Monitoring and determination of the trends and contradictions in development of regional migration processes in the Republic of Bashkortostan, analysis of the key principles of their forecasting and projecting, determination of the factors that increase the level of social planning and modeling, efficiency of administrative work, studying the regional experience and specificity of regulation of migration processes, spreading the positive experience in other constituents of the Federation (Akhatov, 2014) can impart a substantial contribution into the socio-political and economic modernization of modern Russia.

It is worth emphasizing that the migration processes are becoming a broader channel for relocation of population not only on the international and federal levels, but also on an intraregional – between towns. The results of the conducted monitoring allow us to speak of a growth in the population in the cities of the Republic of Bashkortostan due to migrant inflow. The municipal divisions, metropolises, especially the rapidly growing cities with an industrial potential that have the need for workforce represent the centers of attraction for migrants.

L. A. Glazkova proposes to highlight the following peculiarities of the migration processes on the territory of municipal formations:

(a). The process of forming of territorial mobility of the population:

- Motives, reasons for relocation;
- Sufficiency of human potential within a territory;
- Social mobility of the population – the readiness of the region's population to plan a model of their life depending on the expected gain and the ability to independently find the way to improve their welfare;
- The possibilities and limitations of migration process;
- The image of the accepting territory;

(b). Behavior of the migrants:

- Intensiveness and directions of migration flows;
- Pace of adaptation, and term of migration;

(c). Acclimation of migrants in a new place:

- Adaptability of the behavior of migrants and local population – adjusting behavior within the existing socio-cultural environment, and tolerance towards the differences in customs and traditions (Глазкова, 2014).

### 3. Methods

The conducted sociological analysis in a number of cities of the Republic of Bashkortostan, as well as the analysis of the statistical material on other regions of the Volga Federal Region confirms the fact that the population of the municipal formations differs by a fairly high level of territorial mobility. Internal migration results in intense expansions of agglomeration of the Republic of Bashkortostan, which is substantiated by the development of social infrastructure, socio-political stability, economic growth, and developing job market.

In the foundation of the monitoring of migration processes in the Republic of Bashkortostan were laid internal and external factors, which define the process of the social adaptation of migrants.

(a) *External factors:*

- *Economic:* housing availability; employment; material welfare;
- *Safety factors:* the state of law and order; the state of healthcare;
- *Motivational:* favorable conditions for migration;
- *Communicative:* the attitude of the accepting side towards migrants;
- *Educational:* access to education services;
- *Self-realization factors:* ability to find work in a desired field;
- *General:* place of residence; relatives on the territory of migration; length of stay on the territory of migration.

(b) *Internal factors:*

- *Economic:* level of satisfaction with material living conditions;
- *Safety factors:* presence or absence of feeling of protection on the territory of migration;
- *Motivational:* psychological readiness to migrate; dissonance between expectations of the migrant with the reality of the environment;
- *Communicative:* level of integration into the cultural environment;
- *Educational:* the need for education services, and self-improvement; satisfaction with the education services;
- *Self-realization factors:* the feeling of an ability to satisfy your needs in self-realization;
- *General:* self-identification with the territory of migration.

We have also determined the key problems in adaptation of the migrants (Steiner, Mason, & Hayes, 2012) to the new life conditions, namely: low level of material welfare of the migrants, problems with job search, housing problems, and mixed feelings of the city population towards the newcomers (Muraschenkova, 2014). Based on the acquired data we can say that the timeframe of adaptation to the new conditions does not depend on age. Within various age groups there is equal amount of successful and unsuccessful types of adaptation. The most substantial differences in adaptation to the local conditions are linked to the gender and geographic factors. Thus the monitoring has confirmed that the most successful in adjusting are the migrants who have relocated to the capital from other populated areas of Bashkortostan, while the least successful are those who have relocated to the metropolises of the Republic of Bashkortostan from the countries outside of the CIS (Blitz, 2014).

The diagnostics of the state and efficiency of the regulation of the migration process on the territory of municipal divisions of the Republic of Bashkortostan confirms the lack of effective practice of regulation on these processes, which manifests in the spontaneous nature of migration, potential emergence of anti-migrant attitude, and absence of cooperation between the government authorities and business in solving the problems of migrants.

We propose specific measures for overcoming these negative phenomena that would contribute to creation of a municipal system of regulation of the migration processes. As such we consider the following: stimulation of development of private enterprise that would deal with the issues of helping the migrants adjust to the new social environment – help with filing paperwork, finding housing, and assistance with employment; more strict rules for verifying the legality of the entry and departure of foreign citizens; creation of a “black list” of enterprises and organizations of the city who employ illegal migrants; creation of a unified inter-service information database on the work migrants and the condition of their health; incentives for the social organizations that contribute to detection of illegal migrants within the municipal formations (Goncharova, 2014).

It is hard not to agree with the fact that the main problem of regulating migration on the territory of municipal formations is related to the absence of a systemic approach towards development and realization of municipal migration policy, and ineffectiveness of the current mechanisms of regulatory effect upon the migration process (Гайдук, 2014)

#### **4. Results (Testing)**

At this point let us take a look at the empirical part of monitoring the municipal processes in the Republic of Bashkortostan. The monitoring was performed by Bashkirian Institute of Social Technologies (within a number of municipal formations of Bashkiria: Ufa, Sterlitamak, Tuymazy, Oktyabrsky, and others), and conducted over

the period of eight month (from May to December of 2014) alongside teaching the migrants the basics of Russian language and preparing for the language test. The results of the polling are presented below.

A total of 438 foreign citizens have been polled. Among them are representatives of various countries, predominantly people from Vietnam (244), then Tajikistan (75), Uzbekistan (74), Azerbaijan (25), Ukraine (19), and others.

The ages of the respondents range from 18 to 60 and above. Among them are 236 people age 25 to 40, and 104 were above 40. There were also 98 younger respondents among the foreign citizens with ages ranging from 18 to 25.

As to the gender identification, the predominant majority were men – 245 people.

Most of the migrants come without their families: 48% of them left their families behind and only 11% came with their families. The other 41% came to Republic with their friends.

To the question “What prompted you to leave your country (whether temporarily or permanently)” the answers were the following: low income (73%); inability to find work (68%); worsening of the political (economic, social) situation (16%); armed or other conflicts (8%).

The attractiveness of the Republic of Bashkortostan for foreign citizens lies in its socio-economic stability (55% of the respondents) and culture of inter-ethnic relations (29%); 2% of those polled have relatives living here, and 8% answered that they came on a recommendation of their friends. Amongst the respondents there are also those who have chosen the Republic of Bashkortostan by pure chance (3%).

To the question “Are you planning to stay in the Republic of Bashkortostan in the future” the answers break down in the following order: yes (18%); only for the duration of my work (48%); will move to another region of Russia (12%); no, I will return home (22%).

The quality of life in the Republic completely satisfies 17% of the respondents, and mostly satisfies 66%. There are also people who are unhappy with the living conditions – 14%, while 3% were hesitant to answer this question.

Since 11% of the migrants arrive with their families, the questionnaire also included questions related to the social well-being of the children of migrants. To the question whether or not the children of migrants enjoyed living in the Republic of Bashkortostan, 81% said yes, 17% said no, and 2% were hesitant to answer.

The results of the poll demonstrate that foreign citizens prefer to communicate not only with their countrymen, but also with the local population, as per 73% of the respondents. There are 18% of those who communicate only with their countrymen, and 5% only with the local population. Interestingly enough, there were also those who did not socialize with anyone – 4%.

A similar situation can be observed among the children of the migrants: 79% socialize with people of same age bracket and of same nationality, as well as with the local kids; only with kids of same age and nationality – 16%; only with the locals – 3%. Do not socialize with anyone – 2%.

At the same time, certain factors and situations cause concern among the foreign citizens (this was a multiple choice question): high rent prices, poor living conditions (67%); high food and clothing prices (61%); difficulties obtaining medical care (41%); low wages (29%); low level of legal protection (17%); crime (12%); arbitrary behavior of the employers (11%); inter-ethnic conflicts (8%); climate and environment (2%). In the “Other” field, the respondents filled in: crisis (2%); changes in migration policy (8%).

The overall situation in the area of inter-ethnic relations seems favorable to the migrants. To the question “How do the residents of Republic of Bashkortostan treat you”, the following answers were received: good – 70%; impartial – 24%. There was however 4% of the respondents who graded the attitude of the locals towards them as poor, while 2% hesitated to answer the question.

It is a pleasant fact that the conflicts between the local population and the migrants happened quite rarely according to 84% of the respondents; 2% believe that there are no conflicts whatsoever. An alarming fact however is that 14% were hesitant to answer this question.

In addition to that, there is a substantial number of people who feel unable to exercise their rights: always – 4%; from time to time – 46%; 14% of those polled hesitated with the answer (i.e. it would seem that they did experience some type of difficulty with exercising their rights). At the same time, 38% of the respondents unequivocally stated that they have never felt that their rights were infringed upon.

Another cause for concern is the fact that to the question of whether or not they were offered to join one or



another political or religious organization, 57% of the respondents answered affirmatively. At the same time, 19% have hesitated in answering this question, i.e. almost 1/5 of the respondents chose not to confirm nor deny the existence of such propositions.

Unfortunately, there are instances of unlawful acts against foreign citizens (it affected 39% of the respondents). In addition to that, 19% of the migrants against whom the unlawful acts were committed did not contact law enforcement; 21% did contact law enforcement agencies, and 18% received the needed help, while 2% did not.

To the question “How relevant are the problems related to terrorism” – a question that today concerns the entire planet – most of the migrants (57%) responded negative; 18% of the respondents stated that they did not think about this at all.

However, to the question “In your opinion, who do you think terrorism and international conflicts threaten the most”, 84% of the migrants responded: “Personal safety and safety of the loved ones”. The threat of terrorism and threats to the national security concern 12% of those polled, while 4% hesitated in answering this question.

The respondents were asked whether or not the mass media had any significant influence on how they felt about all current events: 79% gave an affirmative answer, 17% answered – from time to time, and 4% have chosen not to answer.

Since the migrants are living in the Republic, even if only temporarily, they were asked the question: “Are you interested in the culture and traditions of the Republic of Bashkortostan?” The answers were as follows: “Yes” – 41%, “No” – 55%, while 4% were unsure.

We were also interested in hearing the migrants’ opinion on what should be done in order to avoid terrorist acts and international conflicts. The following answers were received: act together, as one – 74%; have reasonable national policy – 23%; had difficulty responding to this question – 4%.

People who have come to Bashkortostan from other countries in their majority (72%) think that in addition to their own customs and traditions they should acknowledge the local way of life and adhere to it; 20% want to live only according to their own traditions, and 8% are willing to let go their traditions and live in accordance with those of the accepting country.

Of course, the most interesting question was whether or not the respondents would recommend their friends to come to the Republic of Bashkortostan, since this question fully reflects the comfort or discomfort in their stay here. The response has exceeded all expectations: 91% have answered “Yes”, 2% had difficulty answering the question, and 7% have answered a firm “No”. It would seem that *only* 7% is not that much, but it means that a *whole* 7%, or in this case over 30 people, feel uncomfortable in the Republic; this means that additional work needs to be done to ensure a full adaptation of the migrants into an environment that is new to them.

Thus, the conducted research revealed that overall the foreign citizens who have come to the Republic of Bashkortostan, whether permanently or temporarily, overall feel comfortable and inter-ethnic, inter-religious and other conflicts happen very rarely. Very few of them want to return home due to dissatisfaction, and according to their statements most people feel that they have adjusted and adapted to the local lifestyle.

Nevertheless, it is too early to relax. The adaptation of migrants remains necessary, which is a serious barrier in their social integration (Organization for Economic Co-operation and Development [OECD], 2012), and it moves at a much slower pace than could be expected. Although majority of the local population continue to maintain a certain negative or impartial attitude towards the migrants, it is impossible to deny that migrants are needed in the area of public infrastructure, construction, and sales – the positions that the local workforce is not eager to fill.

Another interesting aspect of this topic is the gender. In addition to the presented poll, the Institute has also conducted a selective polling on female migrants throughout the same period. The results show that it was easier and quicker for women than men to adjust into the new socio-cultural reality, caring about their family, rather than about personal status, and are more geared towards adaptation. One of the components of female migrants’ integration into the accepting society is their relations with the local population. Majority of them feel that the locals are friendly towards them. The results of the research shows that having kinds in a family has a positive effect on the integration despite the fact that the living conditions of the migrant families with children are more difficult than those of the migrants that have come alone. The migrants who have relocated with their children display a higher level of involvement into the local society: the communication involves children, their school or preschool facilities, relations with friends, teachers and caregivers.

Most of the women who came without children answered that they socialize mainly with their own nationals –

migrants, just as they are, while among women living in the Republic of Bashkortostan with children this index is noticeably lower.

Since the ancient times the Republic of Bashkortostan is home to people of many nationalities and confessions, thus inter-ethnic conflicts and terrorist threats are much lesser of an issue than in other regions. But there are organizations of religious and antinational doctrine, who attempt to involve population, especially migrants as the most vulnerable social group into various types of illegal activities. This can only be counteracted by implementing smart policies in the area of national security, devising technologies that would contribute to developing tolerance towards other cultures, respect for others and their rights.

Taking into consideration the results of the polling by the Bashkirian Institute of Social Technologies within the framework of the UNESCO-UNEVOC Center the following changes have taken place in the Russian Federation:

(a). The Agency for Peacebuilding Technologies has been established, offering services by professional mediators:

- Educational seminars for heads of the departments on youth affairs in the municipal formations of the Republic of Bashkortostan, school teachers and counsellors of youth clubs in Ufa, including in the field of inter-ethnic relations: “Preventing extremism and terrorism among the youth”, “Effective methods of developing principles of tolerance among the youth”, and others;

- Training classes “Polycultural competency as a factor of developing tolerance”, “Harmonization of inter-ethnic relations”, and others;

- Development of peacebuilding technologies in the area of inter-ethnic relations and educational programs on these technologies for various age groups, including members of the Bashkortostan Children’s Public Law Chamber at the Bashkirian Institute of Social Technologies.

(b). A project “Socio-cultural adaptation of migrants in the Republic of Bashkortostan” has been developed and is currently being implemented.

The project includes:

*Part 1.* A program for educating municipal officials within the framework of carrying out their duties on preventing inter-ethnic conflicts and techniques of working with migrants and their families:

- Seminars and clinics (“Managing conflicts”, “Mediation”, “Legislation in the area of inter-ethnic and inter-confession relations”);

- Master classes on exchanging experience of working with migrants, which include invitations of leading specialists from Russia and other countries.

*Part 2.* Conducting monitoring among the local population and migrants on the issues of inter-ethnic relations:

- Conducting sociological polling among the students, youth, adult population, migrants, employers and government authorities dealing with the migrant issues;

- Compiling and publishing analytic reports;

- Acquiring recommendations.

*Part 3.* Working with migrants:

3.1. The program for socio-cultural adaptation of adult migrants includes the following:

- Teaching Russian language (oriented towards their profession);

- Introduction to the culture of the Republic of Bashkortostan, its history, traditions and customs;

- Increasing knowledge in the legal and financial areas;

- Training to develop tolerant attitude and readiness to work in a team;

- Psychological support throughout the process of adaptation.

3.2. Program for socio-cultural adaptation of children of migrants includes the following:

- Russian as a second language;

- Introduction to the cultural and historic elements of the Republic;

- Psychological and pedagogical support;

- Classes and training on tolerance.

*Part 4.* Integration program for social institutions, public organizations, and branches of authority in the sphere of migration policy:

4.1. Establishment of a common socio-cultural space:

- Raising the key migration issues in the mass media;
- Holding round-table talks, including online, on the issues of migration;
- Establishment of volunteer communities;
- Integration with the regional branch of the All-Russian organization “Russian Red Cross”.

4.2. Forming common cultural environment:

- Observing national holidays;
- National theme contests;
- Introduction to the culture of the country of origin of the migrants (literature, music, architecture, traditions, etc.).

Realizing this project, in our opinion would allow carrying out effective preventative measures against xenophobia, national and religious intolerance and most importantly, would contribute to promoting among the local population and the migrants an outlook on life that would support protection of rights of any person regardless of nationality or confession, place of birth, and would not stand for any intolerance. All of these things combined will provide a positive result – a painless adaptation of migrants into the socio-cultural environment of the region.

## 5. Conclusions

Monitoring the current migration situation in municipal divisions of the Republic of Bashkortostan leads us to believe that there is a need to reevaluate the functions of migration regulation in the area of forming municipal policy, devising targeted programs of its realization, complex information and organization management provisions. One of the most pressing issues is reorganization of the management towards reduction of bureaucracy, creation of conditions for improving the mobility of the management, timely reaction to the changes in the conditions of the internal and external environment. It is also necessary to improve the actual diagnostic procedure, its goal differentiation, and embolden in it both, independent and interconnected diagnostics:

- *Qualitative* diagnostics – aimed at determining the state of the migration processes at the time of evaluation;
- *Quantitative* diagnostics – oriented towards determining the quantitative parameters of the migration processes;
- *Dynamic* diagnostics – allowing tracking the migration processes within a specific timeframe;
- *Cause* diagnostics – allows determining and describing the causes for migration processes;
- *Functional* diagnostics – allows determining the social functions and consequences of the migration processes.

As a final thought I would like to suggest practical recommendations on improving the regulation of the migration process in the territories of municipal formations (Akhatov, 2013). Some of the recommendations are:

(a). *To the regional governing authorities:* to give the status of a primary social project of the work of Bashkirian Institute of Social Technologies on migration issues, and support its distribution throughout the municipal division of the region.

(b). *To the municipal authorities:*

- Together with companies of the city to devise a complex of measures on priority industries within the city, where it is possible to attract the workforce from the Republic of Bashkortostan and surrounding regions;
- Create and maintain a database on the vacancies within the priority industries and economic objects of the city;
- Insure creation of quotas for the entry of work migrants;
- Insure the balance within the job market with consideration of the principle of priority of employing the residents of the residents of the Republic of Bashkortostan and surrounding regions;

- Provide assistance in forming of a regional scientific community that would coordinate the research and scientific work on the migration issues.

(c). To the regional scientific community on the research of migration issues:

- Devise methods of organizing cooperation between the branches of municipal authorities, non-governmental organizations, and public migrant unions;

- Devise a system of monitoring the realization of municipal migration policy.

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# Corporate Social Responsibility Demonstrated in Different Approaches to Corporate Extended Performance Reporting

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Received: May 5, 2015 Accepted: June 15, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p185

URL: <http://dx.doi.org/10.5539/ass.v11n24p185>

## Abstract

Corporate social responsibility is becoming a very popular tool for companies in outlining their own strategies (Stancu, Grigore, & Rosca, 2011). Different approaches have been developed to perform corporate social responsibility due to increased market competition. The purpose of this essay is to analyze the importance of carrying out corporate responsibility by demonstrating three different approaches: value creation, risk management, and corporate philanthropy. This will include a particular focus on the advantages and disadvantages of these approaches to extended performance reporting, followed by recommendations and suggestions with an emphasis on the importance of corporate social responsibility. Finally, with detailed analysis, it will be demonstrated that there is not a perfect approach which can meet all the requirements from companies. The approaches to Corporate Extended Performance Reporting for realizing corporate social responsibility still lack sophistication and maturity.

**Keywords:** social responsibility, approach, performance reporting

## 1. Introduction

In the contemporary society, corporate social responsibility (CSR) investments were undertaken by a great number of corporations, especially by large multinational firms, which means that corporate social responsibility becomes more relevant to the development of world-wide corporations. It is gradually becoming a financial measure indicator for business success in the long run. In addition, it is generally perceived that corporate activities have a large impact on our environment, society and all stakeholders. Corporations, as one type of stakeholders, should pay attention not only to the short-term corporate interests, but also to the sustainable profits over a long period of time. For the sake of measuring and evaluating corporate social responsibility activities, accountability principles serve as standards and frameworks for corporate sustainable development. Especially, the development of accountability has come to be applied in sustainability reporting (Aras & Crowther, 2009). Presently, Intensified corporate social responsibility has gradually become a contemporary mechanism in the modern business era (Gholami, 2011). It is evident that globalization has called for companies to help resolve social dilemmas and expanded the responsibilities of corporations (Hillman & Keim, 2001). According to Friedman, R. and Friedman M., corporate responsibility should mainly focus on corporation profits (Friedman, 2009). This view, obviously, constrains corporate responsibility to purely company returns. However, the diversity of corporation types indicates that “a one-size-fits-all approach” cannot meet the overall rising needs (Schwartz & Carroll, 2003). In this essay, the author introduces three common techniques: value creation, risk management and philanthropy to demonstrate various perspectives of corporate responsibility and their positive influence on sustainable development and accountabilities as well as their disadvantages and limitations in the aspects of extended performance reporting and reporting practice. In the following, three main approaches will be analyzed separately.

## 2. Value Creation Approach

According to Gholami (2011), corporate social responsibility is evidently a good way to create shared value, which is to successfully interconnect business success with social problems. The first main approach to link business success with social problems is value creation approach, which means that a sustainable business model

can effectively resolve social problems. More exactly, the purpose of the value creation approach is to build a sustainable business model through innovation to drive future social development. In practice, the value creation approach bears a fundamental impact on the effective operation of corporate social responsibility (Debby et al., 2014). Sustainability reporting is the best case in demonstrating the value creation approach (Cook, 2008). Particularly, sustainability reporting takes multiple stakeholder interests into consideration, such as government departments, suppliers, employees, customers and communities. Employees, as one of the essential stakeholders, their satisfaction and business success are interdependent (Cook, 2008).

British Petroleum (BP) is a good example for explaining employees' satisfaction and its related economic success, as the oil spill in Gulf of Mexico tarnished BP's reputation and triggered an employment crisis. At the most difficult time, economic loss and the oil spill accident led to staff reduction, victims' compensation and long-term environmental restoration. Hence, managing employee relationships with BP Global Corporation, especially deceased staff, is a great challenge (Griggs, 2011). Secondly, reasonable compensation of approximately \$400 million has been paid for deceased employees and affected communities, who have suffered economic losses owing to the oil spill. Finally, BP devotes long term support to environmental restoration and the economic well-being of the Gulf region, which enhance employees' confidence in BP Global as well as joint efforts to improve sustainable and economic development for BP (Griggs, 2011).

### *2.1 Advantages of Value Creation Approach to Extended Performance Reporting*

The value creation approach is a win-win strategy both for companies and society. Firstly, value creation approach linking with corporate social responsibility can assist corporations in improving energy efficiencies and save operational costs (Gholami, 2011). For instance, Wal-Mart organized staff training for training programs on sustainability (McElhaney, 2009). After Wal-Mart employees received sustainability-related training, one Wal-Mart staff proposed the removal of all vending machine light-bulbs, which can significantly conserve energy and reduce operational costs (McElhaney, 2009). This would report Wal-Mart as a good energy saver for the whole society, which will absolutely increase Wal-Mart's social awareness. Secondly, in order to display corporate social responsibility, corporations need to increase company accountability to enhance reputation among employees, suppliers and investors, which is also a favorable way to attract more investors, increase company confidentiality, stimulate their technological innovation, ensure the loyalty of talented employees to corporations, bring a great number of investment opportunities and intensify contradictions between competitors (McElhaney, 2009). A vivid example is from Johnson & Johnson Company (Goetzel et al., 2002). Johnson & Johnson Company saved approximately \$250 million in investing in employee health care programs (Goetzel et al., 2002). This would report Johnson & Johnson as a high sense of responsibility for employees, which can not only enhance corporate image but also arouse the enthusiasm of employees. However, what is undeniable is that there also have limitations for value creation approach.

### *2.2 Disadvantages of Value Creation Approach in Reporting Practice*

The first major problem of value creation approach associated with corporate social responsibility in reporting practice is how to measure its potential and actual financial benefits. The impact is that this may decrease credibility for companies' report as there is no unified criterion for reporting. Secondly, corporations still regard economic benefits as a tool for carrying out corporate social responsibility (Daum, 2003). Thirdly, the value creation approach should work in conjunction with the company's main competency, which means company social responsibility action should also consider the company's own operational strategy. A typical example would be Ford Motor Company, a world-famous automaker company (Hughes-Cromwick, 2011). In order to display Ford Motor Company's corporate responsibility, Ford decided to join in the breast cancer program. As an international automobile manufacturer, there is no strategic connection between breast cancer research and car manufacturing (McElhaney, 2009). This would report Ford Motor Company has health concern, but it has little impact on promoting cars sales. Finally, a number of value creation approaches only pays attention to main stakeholders, especially customers and shareholders, without taking employees and government bodies into consideration (Wang & Juslin, 2013). This would impact employees' enthusiasm and satisfaction. Therefore, value creation approach should take multi-stakeholders' interests into consideration for achieving effective corporate responsibility.

### *2.3 Recommendation*

Corporate responsibility primarily centres on business economic benefits and calls upon companies to perform under various rules and guidelines (Friedman, 2009) but corporate social responsibility can enhance the reputation of corporations (McElhaney, 2009). The value creation approach associated with corporate social responsibility may allow corporations and society achieve mutual benefits: in one way, the value creation

approach can save operational and energy costs and simultaneously push society to efficiently utilize natural resources (Gholami, 2011); in the other way, the value creation approach incorporated into business strategies can promote the sustainable development of corporations. Therefore, business strategies and sustainable strategies coalesce, they can stimulate social development in the long run (McElhaney, 2009). Up to now, the value creation approach still has various limitations, such as incomplete frameworks, profit measurements, core competency connection, it is a fundamental approach to realizing corporate responsibility nonetheless (Debby et al., 2014).

### 3. Risk Management Approach

The second approach is risk management approach. It is obvious that managing risk is an important component in corporate social responsibility (Kytte & Ruggie, 2005). Since a great number of companies fell bankrupt in recent years, much attention is paid to enhance the risk management ability of corporations (Wong, 2003). A company's reputation takes years to establish, but a scandalous incident can instantaneously bring it into ruin. Furthermore, it also requires decades to dispel negative images of a company. Thus, the most significant solution is to manage potential risks and integrate corporate social responsibility into companies' business strategies (Wong, 2003). Rlichemont Company does a perfect job in the risk management process (Audebrand & Iacobus, 2008). Rlichemont quantified all identified risks into different levels according to influence, probability and occurrence. Moreover, according to each level of danger, Rlichemont set up different safe plans to extricate oneself from it (Audebrand & Iacobus, 2008). In addition, the purpose of the risk management approach is compliance (Christie, 2009). To illustrate, Klynveld Peat Marwick Goerdeler (KPMG) adopts fair trade coffee practices by facilitating equal trade globally (Len & Heaton, 2006). The main aim for fair trade is primarily to help developing countries achieve better economic conditions. Urging developed countries to import coffee, tea, bananas, cotton and cocoa at higher prices will undoubtedly be of assistance (Christie, 2009). In general, there are two types of risks associated with corporate social responsibility. The first is operational risks, which include compromises with rules and regulations, employee loyalty, and some specific operational risks. For instance, BP Global Company was embroiled in an oil spill in 2010 (Griggs, 2011). This accident is a big operational challenge for BP Company. The second risk may be in the production line, which involves harmful gases or raw materials pollution. Production risks may cause serious health problems or food safety issues. A prominent example is Japan's nuclear industry in 2011 (Kingston, 2012). On March 11 2011, the nuclear power plant explosion triggered by an earthquake released hazardous gas and radiation, which significantly impinged on public health and food safety (Wang & Qian, 2011). Emergency steps in response to this incident showed corporate responsibility. Tokyo Electric Power Company failed to uphold safety guidelines and falsified documents in order to reduce hefty maintenance costs, which undoubtedly tainted Tokyo Electric Power Company's reputation (Suto et al., 2013). This incident shows the importance of establishing corporate social responsibility, as Tokyo Electric Power Company, which did not take this matter seriously by ignoring public safety concerns, suffered drastic losses as a consequence. Moreover, this incident also revealed the drawbacks of Tokyo Electric Power Company's risk management ability. In fact, Tokyo Electric Power Company was already aware of the potential likelihood of an accident, but declined to take serious preventive action (Suto et al., 2013).

#### 3.1 Advantages of Risk Management Approach to Extended Performance Reporting

Firstly, the risk management approach can decrease operational risks for corporations, particularly by enhancing employees' satisfaction and cultivating an excellent atmosphere (Cook, 2008). In addition, employee involvement is a beneficial way to supervise company behaviour and preclude abusive human rights and personal scandals (Cook, 2008). This would impact the reporting by enhancing employee satisfaction. Secondly, the risk management approach can improve corporate reputation and enhance employee loyalty (Len & Heaton, 2006). Tokyo Electric Power Company suffered significant economic losses due to its neglect in managing risks thoroughly (Suto et al., 2013). Tokyo Electric Power Company now faces billions of dollars in damages as well as an irretrievably tarnished image. This would impact the reporting of Tokyo Electric Power Company's image and reputation. Though the risk management approach has some advantages for extended performance reporting, we can not neglect its limitations, which will be talked below.

#### 3.2 Disadvantages of Risk Management Approach in Reporting Practice

Firstly, for small and medium enterprises, social responsibility fees are costly, so small and medium companies in Europe believe that corporate social responsibility is a financial burden (Perrini & Morsing, 2009). This would impact the reporting accuracy. Secondly, economic capabilities, human capital, management experience and time are major constraints for the sustainable development of small and medium enterprises (Hart, 2012). This would also impact the accuracy and reliability of reporting. Thirdly, for mergers and acquisitions, some multinational

companies establish platforms without understanding local cultural-specific situations, which may also be a potential risk for their future sustainable development. For instance, Telenor Group expands its market to Bangladesh via acquisitions (Falkenberg & Falkenberg, 2009). However, this has proved to be a complicated undertaking for Telenor Group as both countries embody different cultures, languages and laws, making it difficult for Telenor Group to gauge the overall environment and discern cultural discrepancies (Falkenberg & Falkenberg, 2009). This would generate a bad influence on Telenor Group's reporting performance.

### *3.3 Recommendation*

In brief, risk management approach has a significant impact on corporate social responsibility (Wong, 2003). Benefits of the risk management approach lie in the reduction of operational risks, rising of employee satisfaction and enhancement of company reputation and social responsibility. If companies manage potential risks in advance, the likelihood of disaster will be considerably curtailed. However, cost is a major problem puzzling Tokyo Electric Power Company and other small and medium enterprises. The risk management approach needs time, human capital and experienced experts, which small and medium companies cannot afford. With the aim of nurturing a sustainable environment and harmonious society, small and medium companies should cluster together through joint efforts to overcome money shortages. All in all, risk management approach plays a substantial role in company operation; solutions should be settled earlier to escape potential risks.

## **4. Corporate Philanthropy Approach**

The third approach is corporate philanthropy approach, which means that companies donate money to communities and non-profit organizations (Fioravante, 2010). During this process, donating companies aid non-profit organizations and communities without receiving any benefit in return. Generally, the corporate philanthropy approach embodies two targets. The first is non-profit organizations; the second is communities (Wang & Qian, 2011). Community-based development is a popular plan that some corporations prefer (Fioravante, 2010). Thickening interrelationships between local communities and companies enhance local sustainable development. Furthermore, it is believed that small and medium enterprises (SMEs) are unable to donate millions of dollars and a large number of products, as to their limited resources and finite employees. Actually, SMEs, however, can approach corporate social responsibility as well by encouraging employees to donate goods, time and office space to charities. Through encouraging process, it provides an opportunity for companies to employ quality employees, reinvest in local communities and attract new customers. A good example is that the MDVIP Foundation created Thanksgiving baskets for needed families, which is a tremendous asset for needy families and a good way to show corporate social responsibility and improve MDVIP Foundation's reputation and influence (Whitaker, 2008). The purpose of corporate philanthropy approach is to provide skills and monetary donations to help those in need (Fioravante, 2010). The impact of corporate philanthropy is less significant compared with the value creation and risk management approaches (Wang & Qian, 2011). In the short term, the philanthropy-based approach can increase company publicity, analogous to an advertisement, but requires consistency if it is to be employed over the long-term. The dilemma is something no one can avoid. Properly handled, however, the problem can also bring some benefits.

### *4.1 Advantages of Corporate Philanthropy Approach to Extended Performance Reporting*

In fact, the philanthropy-based approach is a win-win policy. Firstly, the corporate philanthropy approach is essentially altruistic, which means corporations contribute to local community activities. Conversely, local community activities are a good advertisement for improving companies' reputation. Most importantly, corporate philanthropy opportunities may even create a new marketplace, stimulating consumption and increasing sales in rural areas. Particularly, corporate philanthropy is closely connected with company brands, which can produce an effective and efficient advertisement. To illustrate, Fujitsu Company adopted the corporate social responsibility approach by supporting the construction of public infrastructure through technology innovation (Crainer & Dearlove, 2010). Fujitsu Company established Fujitsu Way to respond vigilantly to social issues and assume more responsibility for society's sustainable development. Fujitsu Way provides a direction for Fujitsu Company and uses Fujitsu's own technological innovation to deliver global solutions (Hart, 2012). What is also with noticing is that corporate philanthropy approach has some drawbacks as below.

### *4.2 Disadvantages of Corporate Philanthropy Approach in Reporting Practice*

Firstly, short-term sponsorship is not sustainable. Donated companies still seek economic rewards for their contributions. If companies cannot consistently provide monetary donations to communities or non-profit organizations, their strategies cannot be fulfilled in the long run. Eventually, short-term company donations will be of minimal use for charities and may even result in minor social revolution. The impact for this reporting is not consistent. Secondly, there is no regulatory mechanism to supervise how charities spend money. What is



meant by this is that non-profit organizations' reports may be falsified, which can substantially decrease confidentiality between donors and charities on reporting.

#### 4.3 Recommendations

In summary, corporate philanthropy is an approach which not only reflects the corporate social responsibility of companies, but also brings them significant short-term financial benefits (Fioravante, 2010). However, donation processing lacks supervision, which may lead to forging of reports. Therefore, efforts should be devoted to administering the processing of donations. Besides, government should take pragmatic measures through incentives and rewards for support. Overall, the philanthropy-based approach should be developed as a sustainable one in the long run. Governments should also pay attention to supporting corporate social responsibility performance.

#### 5. Conclusion

In practice, with the increasing influence of corporate social responsibility, there have been a great number of perspectives on defining corporate responsibility (Boeger, Murray & Villiers, 2008). However, how to convey corporate social responsibility is still a controversial question. In this essay, three common approaches to corporate extended performance reporting have been introduced to demonstrate corporate social responsibility. Through introducing the purposes, impacts and specific characteristics of the three approaches and analyzing their benefits and limitations in the aspects of extended performance reporting and reporting practice, it can be concluded that each company selects slightly different approaches to display corporate social responsibility and there is no absolutely correct approach to demonstrate corporate social responsibility because there is no ideal one-size-fits-all approach for corporations. Efforts should be made on improving the efficiency of each one. In fact, the main consideration for companies in implementing corporate social responsibility still revolves around economic benefits (Crowther & Rayman-Bacchus, 2004). Corporate responsibility and financial profits are interdependent. In the long run, corporate social responsibility will acquire increasing importance and priority. Hence, more concerns should be focused on making suggestions to improve company performance reporting in order to realize potential economic benefits in the future.

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## Key Account Management – A Review

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Received: July 7, 2015 Accepted: August 11, 2015 Online Published: September 16, 2015

doi:10.5539/ass.v11n24p192

URL: <http://dx.doi.org/10.5539/ass.v11n24p192>

### Abstract

Many companies attempt to obtain competitive advantage and achieve sustainability in their business by establishing strategic alliances with their customers. One of the most significant types of strategic alliance is Key Account Management (KAM). KAM is a systematic supplier initiated programme for managing strategically important customers in business-to-business (B2B) markets. However, the relationship-oriented perspective of KAM has limited empirical examination, and most of the studies were mainly conducted in developed countries such as United States of America, Europe, East Asia, Africa, and Oceania. The aim of this paper is to review KAM literature since 1950s, and to identify its drivers and research challenges. The review found that KAM is evolved from Relationship Marketing (RM) and it involves the adoption of collaborative ways of managing key account relationships as compared to traditional transactional practices to achieve an effective KAM relationship. The paper concludes that implementation of KAM could enhance performance of suppliers.

**Keywords:** key account management, business-to-business, relationship marketing

### 1. Introduction

KAM is a relationship oriented marketing management approach originating in the US to deal with key customers in Business-to-Business (B2B) markets (Wengler, Ehret, & Saab, 2006; Millman, 1996; McDonald, Millman, & Rogers, 1997; McDonald & Rogers, 1998; McDonald, 2000). However, this relationship-oriented perspective of KAM lacks appropriate empirical examination (Tzempelikos & Gounaris, 2013). This article reviews the literature of KAM, its evolution, drivers and research challenges. Lastly, conclusion is drawn at the end of the paper.

Key accounts are customers that selling companies in the business markets regard as strategically important and serviced by the selling company with dedicated resources (McDonald, Millman, & Rogers, 1997; Zupancic, 2008). Sellers may give key account status to some customers for their reference value or company reputation. KAM entails identifying and targeting key accounts by giving them special treatment in the areas of administration, marketing, and services.

KAM is a sales and marketing approach intended at establishing relationships with strategic or important customers in business markets (McDonald, Millman, & Rogers, 1997). Boles, Johnson and Gardner (1999)'s study found that selling companies cannot afford to lose key customers, relationships need to be managed in a special manner in order to serve them better and to develop long-term relationships with them.

Previous research has shown the use of limited empirical data to make statements about the KAM effectiveness. Collection of prior research on determinants of KAM effectiveness is shown in Table 1. Many studies are conducted in developed countries located in the United States of America, Europe, East Asia, Africa, and Oceania which limits the generalizability to other regions such as Asean. Second, all but three of the studies (Workman, Homburg, & Jensen, 2003; Tzempelikos & Gounaris, 2013; Davies & Ryals, 2014) have more than 200 respondents, while some works are based on surveys or interviews in a relatively small number of companies. Thirdly, only six studies have used statistical analysis more advanced than correlations and t-tests. Lastly, two of the studies have used single-item ratings of performance.

### 2. KAM Evolution

The discipline of marketing derived from economics. One of the most significant drivers motivating growth is

lack of interest among economists in the details of market behaviour, particularly those related to the functions of the middlemen (Bartels, 1988; Hunt & Goolsby, 1988; Houston, Gassenheimer, & Maskulka, 1992). In 1902, University of Michigan offered the first programme on the subject area of marketing, followed by University of Pennsylvania in 1905, and Ohio State University in 1906. These programmes focused on the inter-relationships among various divisions of the firm and marketing institutions in performing the distributive task (Bartels, 1988).

The basic principle of marketing management is the marketing mix theory, generally represented by the 4Ps. The theory was first published in a textbook by McCarthy (1960) and supported the scaffolding for future research. Initially, the philosophy of the marketing mix theory was invented by Neil Borden in his 1953 American Marketing Association presidential address. The theory was formalised and published in the *Journal of Advertising Research* in 1964. The original marketing mix was comprised of 12 parameters based on Culliton (1948)'s study. The study described the role of a marketing manager being an artist, decision maker or a mixer of ingredients, who sometimes prepares his or her own recipe, follows recipes made by others, adapts a recipe using available ingredients, and invents new ingredients. The mix retained elegance and simplicity after reduced to 4Ps, but lost in validity and substance. However, it is still an improvement compared with the single P of microeconomics: price.

In 1955, Brems from the Copenhagen School of Economics argued the parameter theory defining four factors of sales and competition: advertising, service, quality, and price. According to Michwitz (1959), the parameter theory is tied with the product life cycle curve and the importance of the parameters differ with the stages in the life cycle. Booms and Bitner (1982) added two Ps, physical evidence and process, and participants to turn service marketing into 7Ps. Subsequently, Kotler (1986) proposed people and place to form 6Ps in his Megamarketing concept. Additionally, Judd (1987) recognised marketing personnel as a fifth P as a major marketing parameter and lastly, Baumgartner (1991) suggested 15Ps to form a complete marketing mix.

Gummesson (1994) posited that the marketing mix approach is inappropriate because the approach does not consider the requirements of the customer and take into consideration industrial marketing. The applicability of RM has been improved and the philosophy of RM is transformed into 30 relationships, the 30Rs. According to the study, the main contributions of RM literature come from quality management, the network approach, services marketing, and indirectly from organisational theory. Additionally, Sheth and Parvatiyar (1995) argued that RM is a rejuvenation of the marketing theory of the pre-industrial era in which consumers and producers contacted each other directly and established structural and emotional bonds in their economic market behaviours.

RM was intended to consolidate suppliers, customers and other infrastructural parties into a firm's marketing and developmental activities (McKenna, 1991; Shani & Chalasani, 1991). Wengler, Ehret, and Saab (2006) cited that marketing has both a transactional and a relational dimension and scientific research had undergone several phases to reach the conclusion in the last 60 years. As RM is comprised of relationship selling and relationship buying, KAM has to be considered a specific relationship programme focusing on key customers.

One of the most important events of the past decade is that many industrial buying firms have been evolved through corporate mergers and acquisitions. These large firms are more demanding and powerful than before and have been observed in many industry sectors such as pharmaceuticals, automotive, retailing, and information technology. Previous studies have shown that these firms have reduced their base of suppliers to cooperate more closely with a limited number of preferred suppliers (Heide & Stump, 1995; Workman, Homburg, & Jensen, 2003; Tzempelikos & Gounaris, 2015). These developments have urged many suppliers to manage their limited resources effectively, particularly to these key customers. In this context, designing a global marketing mix programme to serve all customers has become meaningless (Pels, 1992). KAM approaches are frequently used since the selling process is beyond the capabilities of any one individual and may require a coordinated effort across products, sales regions, functional groups, and divisions. Consequently, KAM has emerged as a well known marketing management conception for managing business relationships in the marketing management literature (Wengler, Ehret, & Saab, 2006).

Table 1. Collection of prior research on determinants of KAM effectiveness

Authors	KAM Effectiveness Dimension	Sample	Method Used to Test	Statistically Significant Findings	Contributions	Limitations
Stevenson (1981)	Increased profits and share, improved communications internally and with buyer	23 firms, personal interviews	t-tests	KAM programme leads to increase profits, share of purchases, and communication	To address question of what leads to KAM programme success	Small sample size
Platzer (1984)	No specific measure, asks for rating of importance of 23 items for programme successes	Survey responses from 122 members of the NAMA	No statistical tests reported	No statistical tests done	Provides percentage importance of 23 aspects of a programme for programme success	No statistical tests, bias in data.
Shapiro and Moriarty (1984)	Support systems, top management involvement and direction	Interviews with 19 U.S. firms	Fields study of NAM	No statistical tests done	Explain the importance of support systems, in support of NAM	No statistical tests, small sample size in U.S.
Wotruba and Castleberry (1993)	Single 9-item scales: individual level	Survey responses from 107 members of NAMA.	Bivariate correlation and t-test.	Performance is better for firm with key account manager	Performance of KAM is affected by length of tenure age of programme and time devoted to KAs	Bivariate analysis single-item perceptual performance, small sample size.
Sengupta, Krapfel and Pusateri (1997)	Work load, compensation, utilisation of information tech, number of KAs	Survey responses from 176 members of NAMA.	t-tests.	High KAM workload leads to lower performance, customer-based incentives versus sales-profit incentives lead to better performance.	Use a multi-item measure of programme success. Consider the effect of workload and types of incentives on outcomes.	Simple bivariate testing, performance for a single account.
Montgomery, Yip, and Villalonga (1998)	4 2-item scale: Manager/team, customer involvement, Performance evaluation, personnel evaluation	Survey responses from 191 firms with global customers (U.S.; Europe; East Asia; Africa; Oceania)	SEM	First KAM study to use SEM.	KEM positively affects performance	Only a single determinant of performance, convenience sample. SEM is not appropriate for <3 item scales.
Birkinshaw, Toulan, and Arnold (2001)	5 multi-item formative scales: scope of account, communication	106 survey responses from 16 multinational firms (Sweden/US/U	Ordinary least squares regression	Strongest effects from customer dependence, communication and scope of	6 models tested, all variables significant	Assuming KAM in a given firm are independent from each other

Authors	KAM Effectiveness Dimension	Sample	Method Used to Test	Statistically Significant Findings	Contributions	Limitations
	n, support system, relative centralisation of activities, customer dependence	K)		account		
Workman, Homburg and Jensen (2003)	Activity intensity and proactiveness, top mgmt involvement, use of teams, morale in a group, control over sales resources and KAM approach formalisation	264 and 121 survey responses from German firms and U.S. firms respectively	SEM LISREL VIII	Identify intra-organisational determinants of KAM effectiveness	Used quantitative data analysis to determine intraorganizational determinants of KAM effectiveness	Unmeasured factor may affect both IV and DV.
Salojarvi, Sainio and Tarjuainen (2010)	Top mgmt involvement, formalisation, CRM investment, Use of teams, customer relationship orientation	169 responses from 97 firms in Finland, Nordic countries	Hierarchical Linear Model	Identify factors that positively affect customer knowledge utilization in KAM relationships	Customer Relationship Orientation uniquely affects utilisation	Only a key informant approach used in collecting data; Smaller firm size in Finland; single dimensionality scales
Gounaris and Tzempelikos (2013)	6 multi-item scales from KAMO	304 companies in Greece	SEM	KAMO influences financial and nonfinancial performance	First study to provide a comprehensive and empirically valid measure of a supplier's KAMO	Single-informant design; lack of market and buyer characteristics factors; KAMO dimensions may develop as a consequences of KAM implementation
Davies and Ryals (2014)	22 KAM practices from previous studies	209 companies with formal KAM programme in UK	Multiple regression	Proposed non-financial and financial measures affect KAM effectiveness	Identify nine criteria for KAM effectiveness	Single item measures of effectiveness

Further study by Woodburn and McDonald (2011) found that the external context in which buyer-seller relationships exist is becoming increasingly extensive and complex. Change drivers include the rapid pace of change, the refinement of processes, market maturity, heightened customer power and the globalisation of business. At the same time, the internal, organisational context is also changing, such as removing traditional delineations of remit and responsibility. Conditions are more conducive to 'partnering' between suppliers and customers and,

thus, the nature of marketing has changed. Marketers are moving away from a traditional transaction focus towards a customer focus. Hence, there is a pressing need for finding ways of describing relationships as a basis from which to understand them better and build them stronger – and this has led to the ascendancy of KAM. Development of KAM is shown in Table 2.

Table 2. Development of KAM

Authors	Title	Significance of study
Culliton (1948)	The Management of Marketing Costs	Introduce 12 marketing mix parameters based on the notion of a businessman being a decision maker
Brems (1955)	Price Theory or Parameter Theory	Present determinants of competition and sales: Price, Quality, Service and Advertising
Mickwitz (1959)	Marketing and Competition	Link the parameter theory to the product life cycle
McCarthy (1960)	Basic Marketing: A Managerial Approach	Propose 4Ps: Product, Price, Place and Promotion
Borden (1964)	The Concept of the Marketing Mix	Extend the parameters theory introduced by Culliton in 1948
Booms and Bitner (1982)	Marketing Strategies and Organization Structures for Service Firms	Turn services marketing into 7Ps by adding three service Ps: participants, physical evidence and process
Kotler (1986)	Megamarketing	Add two Ps: Political Power and Public Opinion Formation to form 6Ps in his Megamarketing concept.
Judd (1987)	Differentiate with the 5th P: People	Suggest a fifth P: People.
Baumgartner (1991)	Nonmarketing Professionals Need More than 4Ps	Propose 15Ps: People, Politics, Public relations, Probe, Partition, Prioritize, Position, Profit, Plan, Performance, Positive implementations and 4Ps.
Gummesson (1994)	Making RM Operational	The core of the outcome of his study is the specification of the 30 relationships.
Sheth and Parvatiyar (1995)	The Evolution of the RM	The RM practices of the pre-industrial era and post-industrial era.
McDonald, Millman and Rogers (1997)	KAM: Theory, Practise and Challenges	Describes a framework for understanding the development of key account relationships. KAM requires significant changes in the organization and management of business-to-business sales relationships.
McDonald, Rogers and Woodburn (2000)	KAM: How to Manage Them Profitably	Develop strategies, process and skills that go beyond traditional selling activity.
Homburg, Workman and Jensen (2002)	A configurational Perspective on KAM	Build a bridge between marketing organisation research and RM research.
Workman, Homburg and Jensen (2003)	Intra-organisational Determinants of KAM Effectiveness	Develop and identify factors affecting the KAM effectiveness.
Wengler (2006)	KAM in Business-to-Business Markets	First uniform KAM conception from the RM perspective, including its strategic, functional and organizational dimensions.
Guesalaga and Johnston (2010)	What's next in KAM research? Building the bridge between the academic literature and the practitioners' priorities	Content analysis of 154 articles found that the role of senior management in KAM, and the importance of internal alignment in determining KAM success are identified very important to key account managers but still under-researched.
Woodburn and Mcdonald (2011)	Key Account Management: The Definitive Guide	Both internal and external contexts led to ascendancy of KAM.



Authors	Title	Significance of study
Gounaris and Nektarios (2013)	Key Account Management Orientation and Its Implications: A Conceptual and Empirical Examination	Suppliers who adopt KAMO as part of their philosophy are likely to achieve superior business performance both financial and nonfinancial. Suppliers should shift from the traditional sales management approach toward KAM to a more relationship-oriented philosophy if they seek to enjoy full benefits from a KAM relationship.

### 3. KAM Drivers

Henneberg, Pardo and Mouzas (2005) explored the origin of KAM from the point of view of suppliers. Suppliers often allocate resources to customers who contribute to the highest percentage of sales or profits, thus not all customers are treated equally. The study suggested KAM programmes are often formed to achieve mutual gains and to create incremental value within important relationships.

Homburg, Workman and Jensen (2002) found the increasing demands of value added services by key customers have driven the implementation of KAM. Firms organise limited resources around customers, develop customer focused business units, employs key account managers and build teams made up of people from various departments such as finance, sales, marketing, and logistics. The study also recognised the influence of purchasing centralisation, purchasing complexity, demand concentration and competitive intensity on KAM formation.

Weitz and Bradford (1999) and Bauer et al. (1998) have shown that many sales organisations are moving from individuals selling to teams selling. According to the study, successful firms are dismissing the hard-sell, short-term orientation of personal selling in favour of a customer-oriented, long-term selling model referred to as relationship selling. Transaction selling focuses on personal selling and secures an immediate sale, and limited attention has been given to the customer's needs, particularly over the long-term. In contrast, relationship selling focuses on developing and enhancing a mutually beneficial bond between buyer and seller. The focus changes from making a sale in the short-term to getting and keeping the right customers over the long term.

KAM is not a new concept in marketing literature (Piercy & Lane, 2005), and drivers in the business environment such as increasing competition, market maturity, globalisation, increased customer sophistication and power, rapid change and process refinement (McDonald, Rogers, & Woodburn, 2000) have led to increased supplier rationalisation and the need to form closer relationships with customers in the activity of retaining customers, adding value and lowering costs (Millman & Wilson, 1999; McDonald, Millman, & Rogers, 1997; Pardo, 1997; McDonald, Rogers, & Woodburn, 2000; Ojasalo, 2001; Workman, Homburg, & Jensen, 2003; Piercy & Lane, 2005; Wengler, Ehret, & Saab, 2006).

Piercy and Lane (2005) presented a conceptual model of three types of value driven key account relationships. The choice of models is driven by the direction of the both selling and buying organisations. The orientation of the supplier and buying organisation decides a most appropriate KAM approach to be adopted. The three types of values are exchange KAM value, proprietary KAM value and relational KAM value. Exchange KAM value involves the supplier creating specific key account related values such as price reduction, priority ordering, and additional after-sales service which are dedicated to the key account. In the proprietary KAM value, the value is created and consumed by the supplier only. It is suggested that many key account programmes are aimed at gaining internal efficiency and effectiveness of the supplier and the customer is not even aware that they are a key account. Lastly, relational KAM value is co-produced and dedicated by both supplier and customer, so that the relationship itself becomes the resource that creates value (Piercy & Lane, 2005). It is implied that relational value cannot exist without the cooperation of both customer and supplier. The study proposed that it may be possible to add another proprietary exchange type called KAM proprietary buyer value whereby the benefits are dedicated by the purchases. This is in response to purchasing centralisation in buying organisation (Piercy & Lane, 2005).

In addition, Montgomery, Yip and Villalonga (1998) identified drivers affecting KAM development comprising globalisation of markets, the need for competitive preemption, and the increased recognition of customer focus as a critical success factor. Parvatiyar and Gruen (2002) presented four drivers of the shift to KAM. The drivers consist of the development of global economies, the increasing globalisation of customers, enhancements in technology and the emergence of global channels. When buying firms expand their business globally, it becomes of utmost importance to treat them as key accounts because of the additional requirements of global firms. The

study also found that KAM programmes are the most complex sales approach, thus studying the effectiveness of KAM programmes brings equally complex challenges. Further work by Gosselin and Bauwen (2006) showed that KAM develops competitive advantage for companies which can acquire and develop the necessary organisational competencies to implement an integrative process through alignment with key customers.

It can be observed that developments in the field of globalisation have led to a renewed interest in KAM. Yip and Madsen (1996) claimed that globalisation has driven the adoption of KAM. This is due to the fact that multinational companies require their suppliers to provide homogeneous products and services around the world, play the role of global coordination as well as to respond with KAM. Industrial firms have used KAM approach to manage their key customers and these firms use a team approach to take overall responsibility for all aspects of a customer's business (Shapiro & Moriarty, 1982). KAM approaches have been used correspondingly with RM and management (Tzempelikos & Gounaris, 2015). The KAM concept can be viewed as the new frontier in RM, extending NAM across countries for key customers.

In the globalisation framework proposed by Yip (1992), industry globalisation drivers such as underlying cost, market, competition, technological, and other industry conditions create the potential for an international firm to obtain the benefits of global strategy. To attain these benefits, the international firm requires establishing its global strategy relevant to the industry drivers. Global organisation factors determine the success of global strategy implementation.

The past decade has seen the rapid development of global customers in many industries. It can be observed that the existence of global customers represent the strongest driver for the use of KAM (Yip & Madsen, 1996; Birkinshaw, Toulan, & Arnold, 2001; Wilson & Weilbaker, 2000). Global customers refer to buying companies who select vendors centrally, buy on a centralised and coordinated basis. Additionally, these companies also look for suppliers who can provide consistent product and service across countries and treat them as a single business entity.

Corresponding to global customers, there are global distribution channels that allow buying companies to buy on a global basis. Global channels are crucial in exploiting differences in prices by conducting the arbitrage function of transshipment. A selling company uses the advantage of global purchase to consolidate and combine global quantity in order to improve their financial gain (Parvatiyar & Gruen, 2002). Existence of the global channels creates opportunity for a business to justify its global pricing and purchasing strategy (Yip & Madsen, 1996; Parvatiyar & Gruen, 2002).

#### **4. KAM Research Challenges**

The first challenge is that limited attention has been paid to the performance of team selling and most of the research on sales is very much focused on the performance of individual salespeople (Weitz, 1981; Churchill et al., 1985). KAM is important to practice in achieving organisation objectives and goals, however, it has received limited attention in the literature and there is lack of empirical research in this area (McDonald, 2000; Workman, Homburg, & Jensen, 2003; Piercy & Lane, 2005; Davies & Ryals, 2014).

The second challenge is the difficulty in researching B2B relationships (Homburg, Workman, & Jensen, 2002). It can be observed that the main reason is that the sample size is smaller in B2B markets, and in many cases, the organisation is the unit of analysis, hence data collection has become more challenging. In addition, protection of business respondents' identities has made the research in B2B markets even more challenging.

The third challenge is lack of empirical evidence behind any models, typologies and taxonomies of KAM. Most of the studies are not context specific and based on one perspective of a buyer or seller relationships (Piercy & Lane, 2005; Homburg, Workman, & Jensen, 2002). It can be noticed that some research findings have imperfections in relation to relationship emphasis and supplier status. Therefore, the use of organisational structures and management systems in KAM research are better understood in terms of overall patterns.

In addition, there is the challenge of a lack of quantitative empirical studies on KAM literature (Workman, Homburg, & Jensen, 2003). Most KAM researches are conceptual and descriptive, based on interviews or surveys in a small number of companies (Shapiro & Moriarty, 1982). The research has presented descriptive data relating to various aspects of KAM programme, with limited theoretical development and few hypotheses tested.

The last challenge is most RM research focuses on inter-organisational issues from the customer perspective. In contrast, KAM research focuses on intra-organisational issues from the supplier perspective (Workman, Homburg, & Jensen, 2003; Salojarvi, Sainio, & Tarkiainen, 2010; Marcos-Cuevas, Natti, Palo, & Ryals, 2014) which causes a gap between RM research and KAM research. This challenge impedes the research of KAM, thus affecting future search on KAM.

## 5. Discussion and Conclusion

The importance of KAM in establishing long term business relationships between buyer and seller in B2B markets is extensively recognised in literature (Ojasalo, 2001; Homburg, Workman, & Jensen, 2002; Henneberg, Pardo, & Mouzas, 2005; Wengler, Ehret, & Saab, 2006; Ryals & Humphries, 2007; Davies & Ryals, 2014; Marcos-Cuevas, Natti, Palo, & Ryals, 2014). However, this long term perspective of KAM lacks of appropriate empirical examination (Gounaris & Tzempelikos, 2013). Most organisations are engaged in KAM whether the organisations officially acknowledge it or not as most organisations have some pool of strategic customers that are treated as more important than others. The Pareto effect paradigm, also known as 80-20 rule indicates that 80% of the returns come from 20% of key customers (Wengler, Ehret, & Saab, 2006). Hence, selling efforts should be focused on key customers who generate majority of return and a formal KAM programme with participation of many people is recommended to treat key customers differently.

In conclusion, the growth in KAM is expected to continue into the next decade. This study makes contributions to RM, sales effectiveness, KAM literature and sales team selling by examining the organizational factors involved in successfully managing the firm's sales resources and marketing. The study can also be the reference material to KAM researchers. The result of the study can contribute to the body of knowledge which concerns the determinants of KAM effectiveness in B2B markets. It provides the basis for future research in Malaysia by contributing an integrative conceptualisation of KAM. It also fills a gap in knowledge about how firms design their approach to key accounts. Ultimately, it shows that actively managing key accounts leads to significantly better performance. Future study should identify the determinants of KAM effectiveness as well as its performance implications in the markets. Lastly, researchers can develop and test hypotheses of KAM relationships in future study.

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# Multimedia Mobile Learning Application for Children's Education: The Development of MFolktales

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Received: May 13, 2015 Accepted: June 24, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p203

URL: <http://dx.doi.org/10.5539/ass.v11n24p203>

## Abstract

Children learn from what they see and hear. One of the attractive applications is animation story and these children are exposed to various types of animation story. However, not all animation stories presented are suitable for children's education in terms of exaggeration elements applied in animation. Furthermore, the existence of mobile application does not emphasize the touch gesture that is suitable for children's age. Hence, there is a lack of mobile learning applications with education-oriented environment for children's education. Therefore, there is a need for research to develop a well-designed mobile application with suitable exaggeration elements together with good story plots and socio-cultural values to educate as well entertain children. This paper discusses the design and development of Malay folktales mobile application called MFolktales based on a local Malay folktale story. MFolktales is an Android-based application and it was developed based on the validated conceptual model as well as analyzed and defined design principles and requirements. This paper presents the development process of MFolktales application. The development life cycle was adopted from ADDIE Instructional Design (ID) model, taking into consideration the animation development process of pre-production, production, and post-production. Overall, there are five phases involved in the development life cycle: analysis, design, development, implementation and evaluation. The application was tested to strengthen its functionality and usability. The result shows that MFolktales application is ready to be tested to real users and ready to be commercialized.

**Keywords:** Child-Computer Interaction, education, mobile application, folktales, Instructional Design

## 1. Introduction

Developing multimedia application for children's education has become popular today. There are many advantages offered by the application itself. The advantages include improving the children's learning performance (Bonsignore, Quinn, Druin, & Bederson, 2013; Chachil, Engkamat, Sarkawi, & Shuib, 2015; Yahaya & Salam, 2014), reducing the formality in learning process (Attewell, 2005), improving children's development of fundamental arithmetic skills (Barendregt, Lindström, Rietz-Leppänen, Holgersson, & Ottosson, 2012), developing the communication skills of disabled children (Tang, Jheng, Chien, Lin, & Chen, 2013) and many more. The assimilation of the multimedia application and the learning activities increases children's interest during the learning process due to its success in attracting children's attention with the multimedia elements included in the application. In addition, there are a lot of studies that proved that by adopting the right and suitable learning theories into multimedia application, children will be able to learn more effectively (Kittidachanupap, Singthongchai, Naenudorn, Khopolklang, & Niwattanakul, 2012; Muda, 2006; Nusir, Alsmadi, Al-Kabi, & Shardqah, 2011). As for multimedia mobile application, the learning theories that could be implemented include the cognitive, social, sensory stimulation theory, affective and psychomotor.

Using mobile device as a learning tool is a new way for learners to learn anywhere and anytime they like. Moreover, an application that contains multimedia elements such as animation, graphic and video encourages parents to attract the attention of their children with it. The use of devices like smartphones and tablets can facilitate the children to learn. There are many studies that proved that there are improvements in terms of

children performance before and after they used the multimedia mobile application as a learning tool. In designing the multimedia mobile application, children have their own behavioural characteristic and cognitive limitations which must be analysed in light of the fact that children are different from adults in terms of motor skills and holistic development. (Ni & Yu, 2015) did a comprehensive analysis of the existing domestic and foreign educational applications. The results show that early childhood educational goals can be categorized into three major areas: cognition, emotion, and action skills. These three areas can be seen to cover the following: language information, intellectual skills, cognitive strategy, attitude, emotion, and action skills.

Children are exposed to handheld technology or devices like smartphones and tablets and their interaction with these devices are increasing since the devices are becoming cheaper and easily obtained. Children are starting to use touch screen devices at a very young age and they have become comfortable with touch screen technology. Although they do not have their own smartphone or tablet, they can easily use their parents' smartphone or tablet. The ways children interact with touch screen devices are also different from adults. Most touch screen devices are not designed to be user-specific and they are often too difficult for children to handle. Studies from (Aziz, 2013) and (Aziz, Batmaz, Stonde, & Chung, 2013) showed that there are seven common gestures that are used for touch screen and interactive surfaces that are always used by children in applications, which are tap, drag-and-drop, slide, pinch, spread and rotate. The studies also showed that children aged 6 years old are able to use all the gestures and have no problem in using a lot of gestures on one interface. (Ibharim, Borhan, & Maizatul H.M. Yatim, 2013) investigated the knowledge and skills that children have with touch screen. The study showed that children enjoy using touch screen technology. The study also clarifies what gestures were hard for children that should be left out, like rotating. (Anthony, Brown, Nias, Tate, & Mohan, 2012) described and investigated the challenges in interpreting gestures on touch screen devices. Children need larger 'touch target' than adults do and children need a target group-specific gesture recognizer in order to recognize their input better. By identifying the limitation, a multimedia application for children's education must be developed according to the requirements that can fit the children's cognitive limitation and touch gestures that are suitable with children with integration with learning theories. Thus, for the purpose of this study, which is to develop a multimedia application for children's education, some examples of the existing multimedia applications are studied in terms of their strengths and weaknesses.

Hence, the aim of this paper is to design and develop a Malay folktale multimedia mobile application (MFolktales) based on a local Malay folktale story for children's education. The application was developed based on the proposed conceptual model by (Ibrahim, Ahmad, & Shafie, 2013), and the development methodology process is described in this paper. The remainder of this paper is organized as follows: Section 2 discusses the development of MFolktales application while Section 3 presents the conclusion of the study and future work.

## **2. Development of MFolktales Application**

Development of mobile application is not easy, where even a detailed and systematic planning is needed so that the application is developed in line with the target users and meets the goals to be achieved. Therefore, the development life cycle model has been developed for MFolktales application prototype as a guideline for the development of the content for mobile application for children's education. The development life cycle was adopted from ADDIE Instructional Design (ID) model, taking into consideration the animation development process of pre-production, production, and post-production. Overall, there are five phases involved in the development life cycle: analysis, design, development, implementation and evaluation. Figure 1 presents the MFolktales development life cycle.

### *2.1 Analysis*

Analysis is the most crucial phase in this process. Basically, there are two stages of preliminary study that have been done in the analysis phase. Firstly, in preliminary study, problems regarding multimedia mobile application and Malay folktales were identified in literature review and surveyed to list down all the choices of solutions for the problems. Learning theories, guidelines and animation principle were analysed in this phase. All the elements identified were implemented in the design of the prototype application (Ibrahim, Ahmad, & Shafie, 2015). As presented in Table 1 and Table 2, the learning theories and user interface principles that are implemented in the MFolktales are described.

In the second preliminary study, in order to determine the level of exposure among children on folktales, a survey was conducted on 394 children, aged from 9 to 11 years old. The results of the survey proved that children are more familiar with foreign folktales compared to local folktales. The results also showed that children are interested in animal, humor and exemplary stories (Ibrahim, Ahmad, & Shafie, 2014). The survey



also investigates the preferred operating system for MFolktales application and the result showed that Android is the preferred operating system of smartphones and tablets for children in learning applications. Thus, MFolktales application has been developed using Android operating system. Based on the results in this phase, the proposed conceptual model for multimedia mobile application was developed (Ibrahim et al., 2013).

## 2.2 Design

The animal genre story, which is the most favoured among children, was selected to be the main content in the application. As displayed in Figure 2, MFolktales Instructional Design (ID) was produced during this phase. This ID model symbolizes the overall developed prototype. Several elements identified was included in the model, which are objectives, perpetual navigation, interactivity, learning approach, methodology, medium, and pedagogical approach. The initial view of the animation story that was developed had been created with consideration of identified learning theories and the guidelines. The prototype design has been developed based on the ID model. Prototype design include the animation design, art design (characters and props), navigation structure and sketching.

Table 1. Theories implemented in MFolktales

No.	Learning Theory	Implementation in MFolktales
1.	Cognitive	Contribution of cognitive learning theory towards a learning process is the ability of a method to train and improve consistency (Shariffudin, 2007). While from the point of multimedia design, cognitive learning theory affects some points such as perception and attention, encoding, comprehensive, memory, active learning, motivation, locus of control, mental model, metacognition, learning transfer, and individual differences (Alessi & Trollip, 2001).
2.	Social	Social learning theory was pioneered by Albert Bandura, a professor of psychology at Stanford University. According to Bandura, people learn by observing and imitating the actions of others (Seng, Parsons, Hinson, & Sardo-Brown, 2003) and (Jarvis, 2006). Humans constantly change their attitudes and behaviors as reinforcers that influence behaviour. Bandura has submitted "Reciprocal Determinism Model" and "Imitation Learning Theory".
3.	Sensory stimulation	Sensory stimulation theory is a traditional method where the learning process takes place through learning by doing and listening. Through sensory stimulation, learning can be enhanced. This research will apply this theory since reading is the most fundamental way of learning. When we read, we use our sense of sight to receive written symbol and gain information or knowledge.
4.	Affective	Affective refers to the skills and processes involved in learning a compilation of suitable behaviours (Bloom, Krathwohl, & Masia, 1984) and (Anderson, Krathwohl, & Bloom, 2001). Learners will receive, respond, evaluate, organize, and characterize the information they get. For this research, affective taxonomy will be applied to all modules in the application.
5.	Psychomotor	Psychomotor encompasses all physical aspects based on what user have learnt (Anderson et al., 2001; Bloom et al., 1984). Users will replicate the physical activity that they see, such as running, jumping, drawing, dancing, and so on. The learning effects can be measured during or after the learning process. For this research, psychomotor taxonomy will be applied in Animation Module.

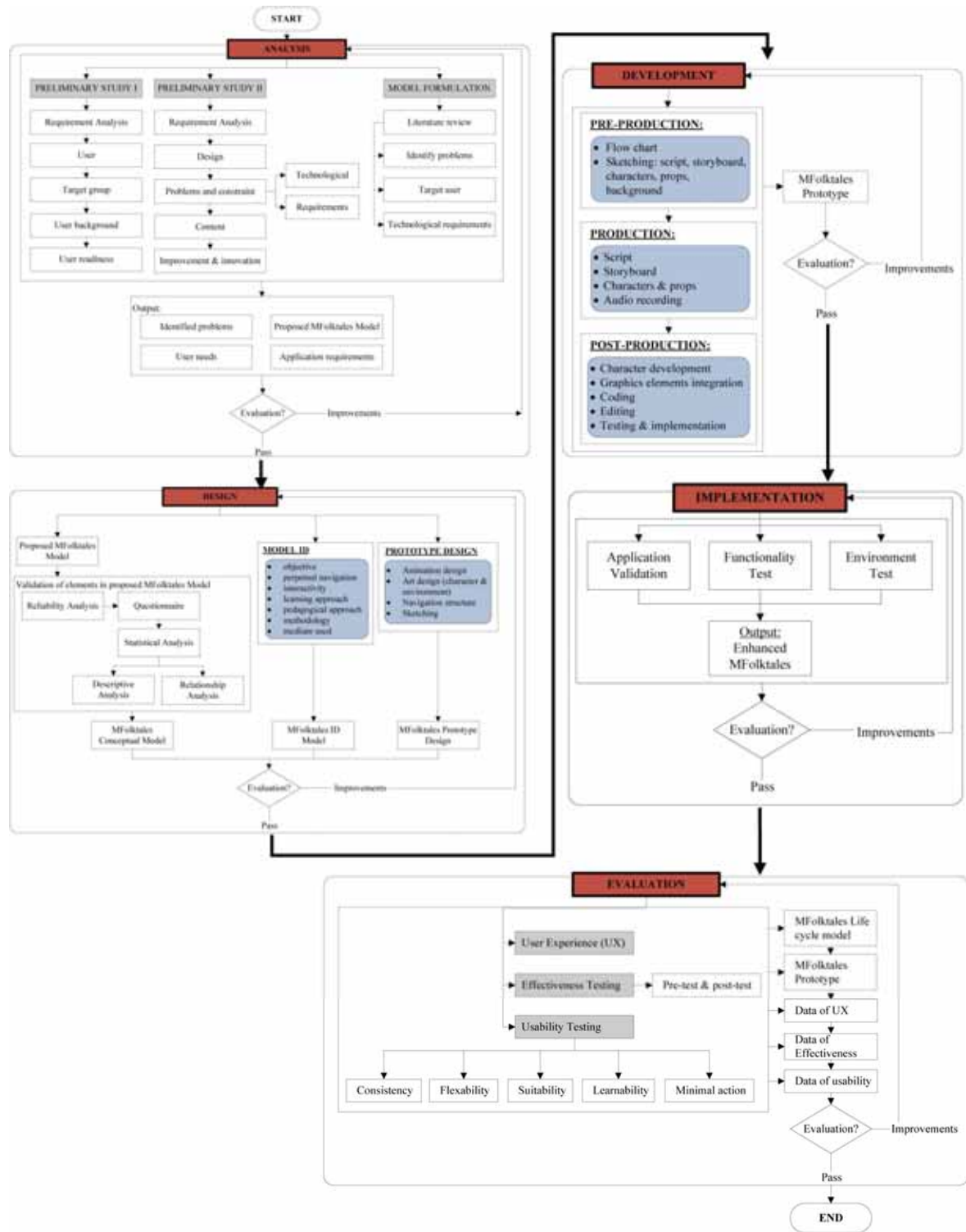


Figure 1. MFolktales development life cycle

Table 2. Guidelines implemented in MFolktales

No.	User Interface Principles	Implementation in MFolktales
1.	Content	Avoid unnecessary information (Parsons, Ryu, & Cranshaw, 2007). Unnecessary information in the application can decrease children's focus and attention (Inkpen, 1997) and also confuse them.
2.	Design	<p>Multimedia design</p> <ul style="list-style-type: none"> <li>- Use sound and music to attract children's attention (Jakob Nielsen, 2010), use simple and relatively large fonts (Large &amp; Beheshti, 2005), use images and interesting characters with special effects that should not be distracting and are also child-friendly (Jakob Nielsen, 2010), using narration in a friendly human voice with age-appropriate language (Borse, Robles, &amp; Schwartz, 2006).</li> </ul> <p>Interface design</p> <ul style="list-style-type: none"> <li>- The interaction between users and the application in terms of one-click interface (Segers &amp; Verhoeven, 2002), touch screen (Chiasson &amp; Gutwin, 2005), controlling the multimedia, and intermediate feedback (Blackwell, Lauricella, &amp; Wartella, 2014).</li> </ul> <p>Learning design</p> <ul style="list-style-type: none"> <li>- Scaffolding and guidance help children remember how to accomplish a task (Chiasson &amp; Gutwin, 2005), children should be actively participating (Fluckiger, 2010), designing activities that support imagination (Liebermana, Batesa, &amp; Soa, 2009), mental development, and enhancing self-confidence of children (Chiasson &amp; Gutwin, 2005), design activities that encourage social interaction and collaborative and hearing words more than once can help vocabulary learning (Fluckiger, 2010).</li> </ul> <p>Cultural Design</p> <ul style="list-style-type: none"> <li>- Use multimedia elements and interface designs that children are familiar with, such as ethnic costumes, community values, and beliefs (Fluckiger, 2010; Korat, 2001).</li> <li>- Use contents related to children's identity that have meaning for them and their lives on a personal, family, community or national level (Dubosarsky et al., 2011; Korat, 2001).</li> <li>- Incorporating cultural themes to promote critical thinking such as concept and vocabulary skills (Dubosarsky et al., 2011; Korat, 2001).</li> </ul>
3.	Visual Elements	Visual elements include still frame and motion video, images, text, graphics, and animation (Orr, Golas, & Yao, 1994).
4.	Natural Usage	The application must be user-friendly. User-friendliness can be measured when the users just need a few minutes to understand how the application works (Grasso & Roselli, 2005).
5.	Navigation	<ul style="list-style-type: none"> <li>- Avoid using complex navigation (Inkpen, 1997).</li> <li>- Minimize scrolling frequently (Inkpen, 1997).</li> </ul>
6.	Consistency	<ul style="list-style-type: none"> <li>- Consistency is the most important aspects in measuring user interface design principles (Jacob Nielsen, 1993).</li> <li>- Similar information and action need to be inserted in the similar position (Jacob Nielsen, 1993).</li> </ul>
7.	Flexibility	Alternative display can be added to perform the same function. The display can act as a shortcut key (Grasso & Roselli, 2005).

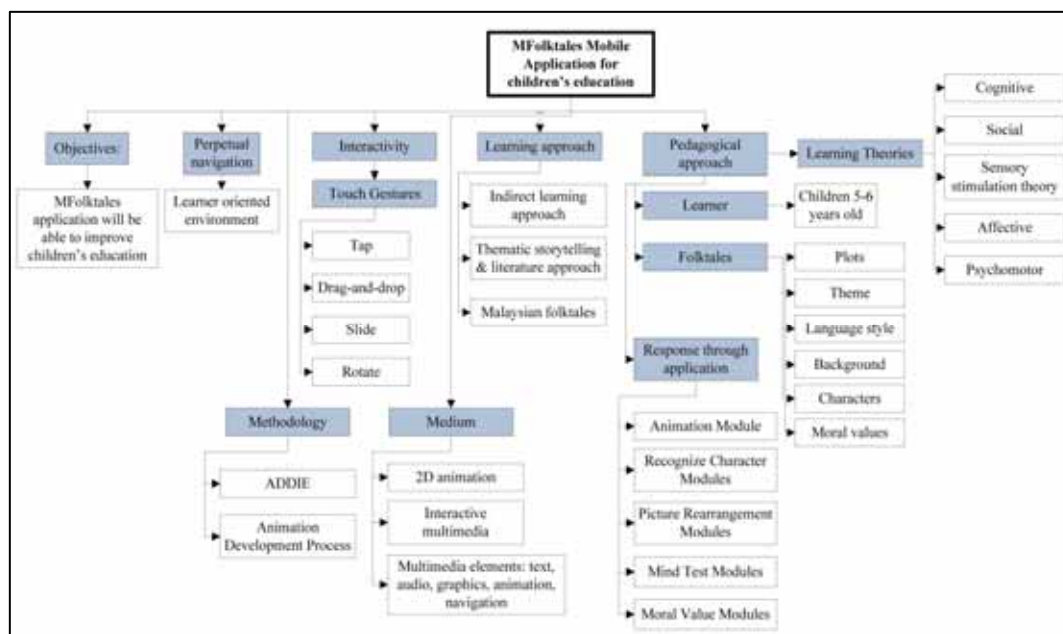


Figure 2. MFolktales Instructional Design (ID) model

### 2.3 Development

The next phase is development phase. Development phase is further divided into three phases: (i) pre-production, (ii) production, and (iii) post-production. Figure 3 shows the development activity involved in MFolktales application. Pre-production stage is divided into two phases, which are analysis and design. During the pre-production stage, the problems and solution have been identified and analyzed. The prototype development methodology was also produced during this stage. This stage produced the initial view of the animation story which is: storyline, flow chart, character and props, script and screenplay, storyboard and animatic. The 2D animation story and the modules in the MFolktales application were fully developed based on the storyboard. The sketching and digitizing process was done during production stage. Other processes executed in this stage are cleaning up the sketching, editing process and adding sound effects. Post-production stage is divided into two phases, which are implementation and evaluation. The tools for developing the application were: (i) Adobe Flash CS5 for 2D modelling with ActionScript 3.0 for programming, (ii) Adobe Photoshop CS5 for graphic editing, and (iii) Audacity audio software for audio editing.

#### 2.3.1 Story Development

Based on the survey done in the analysis phase, a popular genre of Malay folktales among children was determined. A few interesting stories were compared, and “*Sang Arnab dan Sang Kura-Kura Berlumba Lari*” was selected. The content was taken from a storybook. The application used Malay language as its medium of language. The story lasted for about 3 minutes and was developed using 2D animation. The story was about an arrogant rabbit that lost to a tortoise in a race. The story started when *Sang Arnab* (the rabbit) challenged *Sang Kura-Kura* (the tortoise) to race with him. As *Sang Arnab* ran, he looked behind and he saw *Sang Kura-Kura* was running at a slow pace. *Sang Arnab* thought that if he took a short break, *Sang Kura-Kura* would still fail to defeat him. So, *Sang Arnab* stopped by a tree and slept soundly. *Sang Kura-Kura* continued running and he saw *Sang Arnab* was fast asleep under a tree. *Sang Kura-Kura* continued running at a slow pace. Suddenly, *Sang Arnab* awoke and he thought that *Sang Kura-Kura* was still left behind. *Sang Arnab* ran as fast as he could to the finish line. Upon reaching the finish line, *Sang Arnab* realized that *Sang Kura-Kura* had already reached the finish line and was relaxing while waiting for *Sang Arnab*. *Sang Arnab* felt ashamed of his defeat and his arrogance towards *Sang Kura-Kura*. The moral of the story is not to be arrogant and boastful. Besides, one should never insult others due to their deprivation, and they would probably be more successful because of their hard work.

#### 2.3.2 Storyboard Development

The storyboard was used as a visual guide to researchers in developing the animated folktale story. The storyboard was made in fractions of scene and displayed guides like dialogues and actions shown in a scene.

Dialogue and camera angles for each scene shot were mentioned briefly in the storyboard for ease of reference to the script. For this prototype, two storyboards were developed, which were storyboard for animation story, and storyboard for interactive modules. Figure 4 shows an example of storyboard for the Animation Module, while Figure 5 shows the storyboard for interactive modules in MFolktales application prototype.

### 2.3.3 Research Design Characters and Background Development

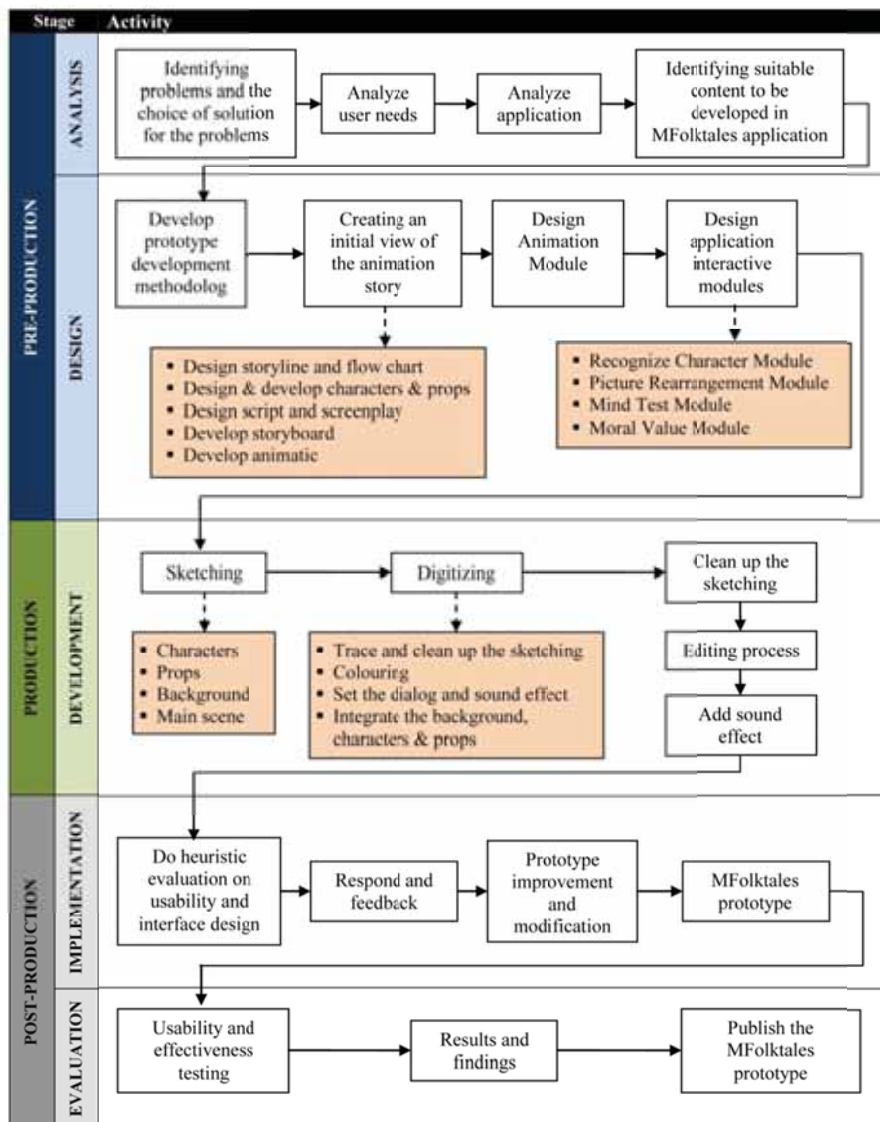


Figure 3. Development activity for MFolktales

Based on the final sketches and design, each character and background was developed using Adobe Flash. The graphics that were produced with Adobe Flash were vector graphics, where the quality of the image would not be affected if the size of the graphic was changed. Characters and background were developed based on the suitability of Malay folktale and the target users, who are children, by using a bright color scheme. The story “*Sang Arnab dan Sang Kura-Kura Berlumba Lari*” has two main characters, *Sang Arnab* and *Sang Kura-Kura*. Besides these two characters, there are a few supporting characters towards the end of the story, who are friends of *Sang Arnab* and *Sang Kura-Kura*. Figure 6 shows the characters designed in the Animation Module.

MFolktales application consists of five modules, where one is an animation story module, and the remaining four are activity game modules. MFolktales application used the dynamic navigation approach so that the users get full control accessing the content of the prototype. Figure 7-11 shows the interface of each module in MFolktales

application respectively. Figure 8 shows several screenshots for the Animation Module. The animated folktale entitled “*Sang Arnab dan Sang Kura-Kura Berlumba Lari*” was adapted to suit the age of the target users. Bright colour schemes are used to attract users and simple graphic designs were applied to each graphic element to obtain neat graphics and animations. Social learning theory was applied in this module. Learning occurs through observation and understanding of the animated story “*Sang Arnab dan Sang Kura-Kura Berlumba Lari*”, which acts as a source for lesson delivery.



Figure 4. Storyboard for Animation Module “Sang Arnab dan Sang Kura-Kura Berlumba Lari”

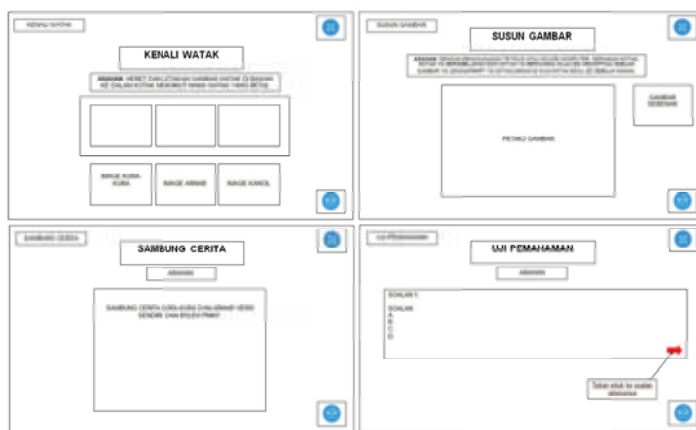


Figure 5. Storyboard for interactive modules



Figure 6. Main characters in Animation Module

Meanwhile, Figure 9 illustrates a screenshot of Recognize Character Module. This module is aimed to test the level of recognition among the four main characters in the Animation Module. The module is a simple game activity, where the user can drag and drop the characters using their finger and place them in the correct position. If the character is placed in the correct position, the audio effect “Right” is played automatically, and an animated blinking star appears. Meanwhile, if incorrect, the audio effect “Wrong” is played and the character returns to its original position. This module applies effective learning theory, whereby users are praised as a

reward when they successfully complete the activity in this module. This learning theory is appropriate with this module as this module is very easy and suitable for children with a fundamental learning level.

Figure 10 shows the screenshot for Picture Rearrangement Module. This module is a puzzle activity. The user needs to use their creativity to solve the challenges by placing the puzzle in the right position. Each puzzle represents a small part of the picture to be completed. A cognitive learning theory was applied in this module because the users need to use their creativity to solve the puzzle and the users also must have good short-term memory. Through this module, the users can encourage their spatial skills and concentration.



Figure 7. Animation Module



Figure 8. Recognize Character Modules



Figure 9. Picture Rearrangement Modules

Meanwhile, the screenshot for Mind Test Module is shown in Figure 11. This module is a true and false game, and it is the most challenging module in the application. This module consists of five questions. The user needs to answer all the questions, and there is no time limit. The questions are based on the story in the Animation Module. Cognitive learning theory was applied in the Mind Test Module. According to this theory, knowledge stored in the memory space is restored to make decisions based on experience. This concept was taken to test the users with comprehension questions that require them to answer questions based on their understandings and memories associated with the Animation Module.



Figure 10. Mind Test Modules

Lastly, all morals of the story from the Animation Module will be displayed in point form in the Moral Value Module. Sensory stimulation theory was applied in this module. Vision of sensory is stimulated for reading when users see the text. In order to get the point from the animation story and Moral Value Module, users need to read the text displayed. Figure 12 shows the screenshot for Moral Value Module.



Figure 11. Moral Value Modules

#### 2.4 Implementation

After the development phase, in order to make sure that the application was free from interface and design problems, as well as to look into the suitability of the application to the target users, several tests have to be performed, as shown in Figure 1. The tests include application validation, functionality test and environment test. Application validation involved the tasks of cross-checking overall application with MFolktales conceptual model that has been developed. All functions that have been illustrated in Figure 7 should appear in the application. All the buttons and navigation have been tested so that the application achieves the objective of the development. Functionality test was conducted to check if the produced output of each function works the same as expected while environment test that had been conducted once the full application had been uploaded and installed in the smartphone and tablet. The environment test was conducted to ensure the application works



properly in the real environment.

### 2.5 Evaluation

The final phase in this development process was evaluation. As shown in Figure 1, the ready prototype will be evaluated in terms of its usability, effectiveness, and to obtain perceptions from children on its quality, as well as to identify their user experience towards this application.

### 3. Conclusion and Future Work

As a conclusion, from the analyzed and defined theories and guidelines, the proposed conceptual model has been developed. Based on the validated proposed conceptual model, MFolktales mobile application has been successfully designed and developed. In general, this paper has presented the activity involved in the development of a multimedia mobile application for children's education, called MFolktales. Through this application, there is an alternative medium in changing the traditional teaching and learning method that only uses storybooks as reference and leads towards a better form of learning environment. It is hoped that the development of the mobile application could attract children towards socio-cultural awareness, besides helping them to revive and sustain the existence and the popularity of local Malay folktales among the future generation. As for future work, the application will be evaluated for its usability and effectiveness to obtain perceptions from children on its quality, as well as to identify their acceptance towards this application.

### Acknowledgments

The author would like to thank everyone that is involved directly or indirectly with this project especially to Universiti Pendidikan Sultan Idris (UPSI), Universiti Teknologi PETRONAS (UTP) and the Ministry of Higher Education (MOHE) for financial support throughout the research study.

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# Applying Standard Competency Assessment in Vocational Teaching Practices

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Received: May 17, 2015 Accepted: July 13, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p216

URL: <http://dx.doi.org/10.5539/ass.v11n24p216>

## Abstract

Teaching in vocational education is focused on knowledge and skills. Psychomotor is an aspect that emphasized in teaching competency in vocational education. Teaching based on psychomotor is a way to provide students with the hands on skills. Teachers are the main character in the teaching session. Therefore, this paper explained the differences among teachers in teaching based Standard Competency Assessment with their expertise in particular field. Research used survey design involved 301 teachers from Vocational Colleges specifically teaching practical task in Technology Courses. The focused elements are experienced and qualification of expertise based on recognition by Malaysia Skill Certification. Result showed that there are differences in the application of the teaching methods between experienced and inexperienced instructors teaching at the workshop from the teaching and evaluation aspects. The skills certificates ownership by the instructors shows differences in the aspects of teaching methods compared to the teaching implementation. In summary, teachers or instructors who teaching in vocational courses need the basic requirement especially skills recognition to fulfill competency assessment.

**Keywords:** teaching practices, competency standard assessment, psychomotor

## 1. Introduction

Competency Standard Assessment (CSA) System conducted in vocational colleges started in 2012 to measure the performance of individual's achievement at the end of the teaching and learning processes. The certificate level for CSA in vocational colleges outlines 70% of school-based assessment and the remaining 30% are central-based, whereas for the diploma level, it consists of 80% school-based assessment and 20% are central-based. The Average Grades for the vocational stream before modular assessment was introduced in 2007, 2008 and 2009 were 5.66 and 5.49 and 5.11 respectively. Meanwhile, the Average Grades after the modular assessment was introduced in 2010 and 2011 were 4.38 and 4.45 respectively. There is a reduction of the values of Average Grade from 2007-2012 for vocational examinations, in which the latest achievements are better than the past achievements before modular assessment was introduced. Lower value of Average Grade means better performance of the examination results (Ministry of Education, 2011)

Tan (2010) claimed one of the success factors of School-based Assessment is the instructors' method of structuring the teaching and learning activities in the classroom from the aspects of planning, implementation and evaluation. Robert (2008) also stated that in his study, most academic assessment cases involved a high risk of irresponsibility. Most evaluators focused more on students' good achievement and ignored the teaching planning, implementation and evaluation. This is because students only need to obtain a minimum score of 10 in the central examination score and 30% competency of the entire module to pass in the Malaysian Certificate of Education (Ministry of Education, 2009). The situation can be seen when the passing percentage of vocational stream increased significantly in 2009, 2010 and 2011, in which the School-based Assessment Module was implemented in these years.

Mahajan (1999) mentioned that the current paradigm in engineering education was built on the structure of the practical teaching requirements in the workshop. Instructors in this field must have not only the technical and vocational skills, but they also need to have teaching skills, as well as mastery of practical skills in ensuring that the information disseminated to the students is accurate and correct. Explanations given by the instructors, professional development and classroom practices bring about the effectiveness against certain practices, in

which it may be positive or negative depending on their impact on the students' final achievements (Harold, 2001). Educators need to be an expert in an education field before starting their teaching session in the classroom. Fionn (1998) in his study stated that most modular-based teaching and learning create incompatibility between the technique and the teaching content and the students' mastery in teaching, especially the skills.

According to Pinsent (2008), the effectiveness of learning depends on the teaching content and the delivery methods used by the educators. A study conducted by Johari et al. (2009) involving 928 teachers in 22 schools in four districts in Sabah found that the experienced teachers who have been teaching for more than seven years have a greater ability in the teaching aspect compared to the teachers with less than seven years teaching experience. O'Connor et al. (2004) stated that experienced teachers are able to make a better association between the new materials learned with the students' existing knowledge from previous learning, besides encouraging more open and flexible discussions between the teachers and students.

Novice instructors are less confident when dealing with teaching and learning (T&L) in the classrooms especially when the teaching is in the practical form or skills teaching. Novice instructors were found to have many ideas that would be implemented but in reality, their T&L were found to be less confident in disseminating or implementing the designed ideas (Guney, 2012, Coulter, 1987; Cruickshank, 1990). According to Darling-Hammond (2000), on average, the instructors who had served less than three years are less effective in the selection of teaching method aspect. However, their quality of service increases continuously until five years and then stabilizes. New instructors are more concerned with work reputation, as well as social relationships between school organizations compared to students' academic achievement. They strive to develop unique and new P&P methods in attracting students' attentions than enhancing their own knowledge and skills in greater depth in the subject matter that they are teaching (Guney, 2012; Artiles et al., 1994; Housner & Griffey, 1985; Szpiczka, 1990). The accountability as a teacher is to have certificates of specialization in certain fields, especially in the matters pertaining skills associated with the flow of his/her teaching duties (Kusnawati, 2009).

## 2. Research Objectives

In detail, the research objectives are to:

- (i) Identifying the differences between the most dominant CSA teaching method practiced by the experienced and are inexperienced instructors teaching at workshops.
- (ii) Identifying the differences between the most dominant CSA teaching method practiced by the certified instructors who with and without skills certificates.

## 3. Competency Standard Assessment (CSA)

The main component of implementation assessment in vocational college was a school assessment, centralized assessment, examination center, physical activity assessment, sports and co-curriculum and psychometric assessment. The components focused in order to produce skilled workers in terms of reliability, entrepreneurial, and technical skills (Malaysian Examination Board, 2013). Assessment conducted by instructors of the subjects after the teaching and learning processes. School-based assessment was interpreted evidence process and product for particular competency evidence. The main objective of CSA is to produce graduates of education and vocational training with a workforce skilled, self-confident, knowledgeable, fulfill skilled and accredited standards in industry and accepted by domestic and foreign institution of higher institution (Malaysian Examinations Board, 2013). Scoring competencies for specific module of assessment will be reported in Malaysian Certificate of Vocational (SVM) and Malaysian Skills Certificates (SKM). Centralized assessment conducted in writing that interpret knowledge and evidence of knowledge that handled as same as another Malaysian certificate of education subjects. Table 1 and Figure 1 showed the certification and accreditation of vocational colleges and the percentage requirement in the assessment of vocational colleges.

Table 1. Form of percent requirement in assessment of vocational college

Level	Module	School-Based Assessment	Centralized Assessment
Certificate	Academic Module	30 Percent	70 Percent
	Vocational Module	70 Percent	30 Percent
Diploma	Academic Module	20 Percent	80 Percent
	Vocational Module	80 Percent	20 Percent

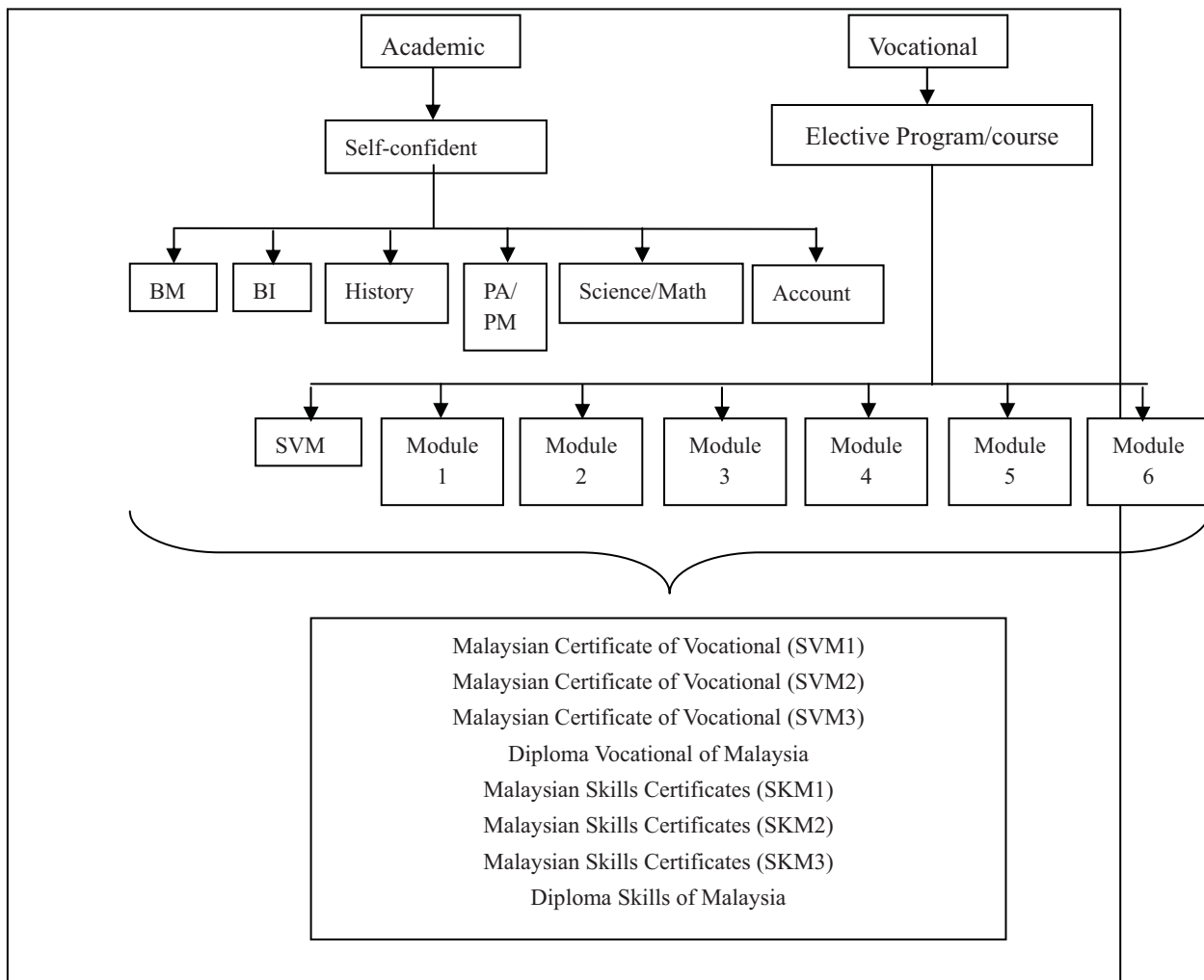


Figure 1. Certification and accreditation of vocational college

3.1 Teaching Method

Teaching is an activity that requires of techniques or skills to teach effectively and meaningful. Therefore, instructors need to have expertise, knowledgable, and teaching skills in their study field (Gloria, 2006). Ingersol (2011) and Greenwald et al. (1996) says that the teachers that mastery in their teaching field is an important factor to determine the qualities of the teaching. In teaching and learning field, there are there three process included that have shown as figure below.

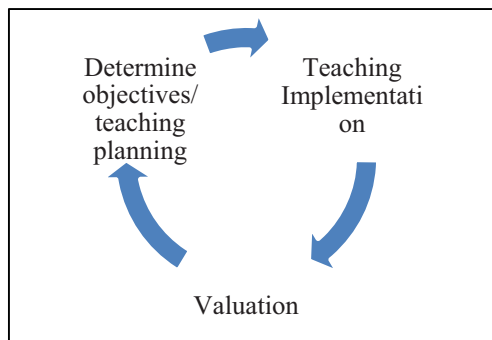


Figure 2. Teaching and learning process (Lorin et al., 2001)

#### 4. Methodology

This study applied a survey research design and using questionnaires to obtain answers to the research questions and testing the hypotheses. The questionnaire is in the quantitative research form to obtain the findings to answer objectives 1 and 2. It is divided into two parts, Part I and Part II. Part I is the demographics of the respondents, whereas Part II is the Practical Teaching Method. Part II is divided into three parts; Teaching Planning, Implementation and Evaluation based on Mok (2000), Tan (2010) and Huitt (2003). The scale is 1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, and 5 = strongly agree. Based on these responses, the application level was measured based on the interpretations of mean score schedule (score range 1.00 to 1.50 = very low, 1.51 to 2.49 = low, 2.50 to 3.49 = moderate, 3.50 to 4.49 = high and 4.50 to 5.00 = very high). Further, the differences in the application of the teaching methods based on the instructors' demography were determined. As a whole, the population for the study conducted consisted of the instructors in vocational colleges, where the sample for the study was the vocational instructors only in the workshop. The respondents' selection technique used by the researcher in distributing the questionnaires was based on the simple random sampling method. Random samplings would occur easily where every sample with similar characteristics will have the probability to be selected as a respondent (Louis, 2011). The advantage of simple random sampling is if the sample is large, then the sample will represent the population (Idris, 2010). The number of vocational instructors in Malaysia is 1328 (Ministry of Education, 2014). However, the sample size of the study was determined by referring to Krejcie and Morgan's table (1970), which is a total of 301 workshop vocational instructors. The data obtained to answer the questions from the distribution of questionnaires to the respondents were analyzed. Inferential statistics was used to generalize the results obtained from the research sample. To answer the research hypotheses, the researcher used an analysis of the differences, namely MANOVA test.

#### 5. Results

Demographic aspects including the teaching experience in the workshops and ownership of the skills certificates among the vocational college instructors were analyzed descriptively. The differences between instructors' demographic aspects of the CSA teaching method practiced by the instructors were analyzed simultaneously. MANOVA test was used to test the two hypotheses. To conduct MANOVA test, the researcher conducted a test to determine the homogeneity of variance-covariance by using Box's M test. This test is important to determine whether the variance-covariance among the dependent variables is similar across all the independent variables. This is an important prerequisite for MANOVA test. The test assumes that the variance-covariance among the dependent variables is similar across all the independent variables. In this case, if the significance level is greater than 0.01, then MANOVA test is valid to be used in this study (Tabachnick & Fidell, 1996).

The table below shows the results of Box's M test for the dependent variables of CSA teaching methods for the independent variables of experienced and inexperienced instructors at the workshops. The analysis results for the teaching implementation is  $F(1, 297.000) = 0.03$ , and the evaluation of teaching is  $F(1, 297.000) = 0.03$ . The significance level is  $p < 0.05$  and  $H_0$  is rejected for this question because the significant value for the teaching implementation and evaluation aspects is less than 0.05.

Table 2. Box's M test results for teaching experience by the instructors

<i>Box's M</i>	9.03
F	1.49
df1	6
df2	360399.38
Sig.	0.18

The Box's M test results for the dependent variables of CSA teaching methods for the independent variables of the instructors with and without skills certificates are shown in the table below. The results analysis for the teaching implementation is  $F(1, 297.000) = 0.050$ . The significance level is  $p < 0.05$  and  $H_0$  is rejected because the significant value of the teaching implementation is less than 0.05.

In the MANOVA analysis, the Pillai's Trace statistical test was used because the number of samples among the instructors with and without skills certificates is different. This matter is supported by Tabachnick and Fidell (1996) where the Pillai's Trace test is suitable if the number of samples is small in size, the number of samples is different or does not meet the prerequisites. Table 4 shows the analysis of the data obtained from the MANOVA

test results to identify the differences between the teaching methods practiced by the experienced and inexperienced instructors at the workshops. The data shows a significant difference between the CSA teaching methods practiced by the experienced instructors of more than 5 years experience and those with less than 5 years experience in the workshop from the aspects of teaching implementation and evaluation. This can be clearly seen when the analysis for the teaching implementation is  $F(1, 297.000) = 0.03$ , and the evaluation of teaching is  $F(1, 297.000) = 0.03$ . The significance level is  $p < 0.05$  and  $H_0$  is rejected for this question because the significant value of the teaching implementation and evaluation aspects is less than 0.05.

Table 3. Box's M test results for the ownership of the skills certificates aspect

<i>Box's M</i>	2.84
F	0.47
df1	6
df2	398499.49
Sig.	0.83

Table 4. Test of between-subjects effect for teaching experience by the instructor

	Dependent variable	Sum of square	df	Average sum of square	F	Sig.
<b>Correction Model</b>	Planning	0.05	1	0.06	0.06	0.81
	Implementation	2.66	1	2.66	4.81	0.03
	Evaluation	5.83	1	5.83	4.54	0.03
<b>Intersection</b>	Planning	3892.34	1	3892.34	4420.67	0.00
	Implementation	3470.32	1	3470.32	6285.32	0.00
	Evaluation	3381.60	1	3381.60	2636.32	0.00
<b>Experience</b>	Planning	0.05	1	0.05	0.06	0.81
	Implementation	2.66	1	2.66	4.81	0.03
	Evaluation	5.83	1	5.83	4.54	0.03

a.  $R^2 = 0.00$  (determine  $R^2 = -0.003$ )

b.  $R^2 = 0.016$  (determine  $R^2 = 0.013$ )

c.  $R^2 = 0.015$  (determine  $R^2 = 0.012$ )

Table 5. Test of between-subjects effect for the Malaysia skills certificates

	Dependent variables	Sum of square	df	Average sum of square	F	Sig.
<b>Correction Model</b>	Planning	0.06	1	0.06	0.07	0.79
	Implementation	2.20	1	2.20	3.97	0.05
	Evaluation	0.93	1	0.93	0.72	0.40
<b>Intersection</b>	Planning	3946.23	1	3946.23	4482.04	0.00
	Implementation	3527.68	1	3527.68	6371.51	0.00
	Evaluation	3475.28	1	3475.28	2675.21	0.00
<b>Skill Certificate Ownership</b>	Planning	0.06	1	0.06	0.07	0.79
	Implementation	2.20	1	2.20	3.97	0.05
	Evaluation	0.93	1	0.93	0.72	0.39
	Evaluation	389.36	300			

a.  $R^2 = 0.00$  (determine  $R^2 = -0.003$ )

b.  $R^2 = 0.013$  (determine  $R^2 = 0.010$ )

c.  $R^2 = 0.002$  (determine  $R^2 = -0.001$ )



The table below shows the analysis of the data obtained from the MANOVA test results to identify the differences between CAS teaching methods practiced by the instructors with and without skills certificates. The data shows a significant difference between the CAS teaching methods practiced by the instructors. Ownership of the skills certificates by the instructors shows the difference from teaching methods, where the argument is proved for the teaching implementation aspects, where  $F(1, 297,000) = 0.05$ . The  $R^2$  value by referring to Table 5 shows that the ownership of skills certificates by the instructors contributed 0.013 or 1.3 % difference in the dependent variables for the teaching implementation aspect.

## 5. Discussions and Conclusions

In general, the researcher found that there are differences in the application of the teaching methods between experienced and inexperienced instructors teaching at the workshop from the teaching and evaluation aspects. The skills certificates ownership by the instructors shows differences in the aspects of teaching methods compared to the teaching implementation. Johari et al. (2009) in his study found that there are differences in the efficacy between experienced and inexperienced teachers teaching at the workshop. Experienced and inexperienced teachers did not show differences in terms of confidence and the selection of teaching methods that include the aspects of teaching planning, implementation and evaluation. Study conducted by Guney (2012) indicate differences in the teaching aspect, in which experienced teachers gave more emphasis on the implementation of the teaching elements than novice teachers. There was no difference in the teaching preparation and evaluation aspects between novice and non-novice teachers.

Study also conclude the analysis are consistent with the results of the studies conducted by Alex and Wayne (2012), Guney (2012) and Johari et al. (2009) in the teaching implementation aspect, where there is a difference in the teaching planning among experienced and inexperienced instructors. The teaching preparation aspect did not show any difference between experienced and inexperienced instructors, and this is consistent with the findings of studies conducted by Alex and Wayne (2012), Guney (2012) and Johari et al. (2009). In the aspect of teaching evaluation application, the researcher found that there are differences between experienced and inexperienced instructors. This situation is in line with the findings by Johari et al. (2009) and Alex and Wayne (2012). However, the finding is contrary to the results of the study conducted by Guney (2012). The results carry out by Teresa (1999) showed that instructors who have the skills certificates produce effective teaching methods than those who do not have the certificates. Instructors with skills certificates used more demonstrations methods and fully involved the students' movement activities compared to the instructors without the certificates. The instructors with skills certificates emphasized on the teaching implementation aspect. For the planning aspect, the instructors either with or without skills certificates give less emphasis due to lack of time and busy in solving other matters in the education institutions.

Gloria (2006) reported the instructors with the certificate of mastery of a field have different teaching approach than those who do not have the certificate. Each planning, implementation and evaluation of the teaching is focused on students' final achievement. These instructors understand better the different needs of each student compared to the instructors who do not have the certificate or license, whereby they only depend on the criteria suggested by the administration without making changes or diversifications. Certified instructors are more likely to diversify each teaching method, either traditional or modern, to enhance students' understanding and progress. Results found that there are differences in the application of the teaching aspects among teachers with and without skills certificates, whereas there is no difference in the teaching planning and evaluation. This is consistent with the study conducted by Teresa (1999). However, the planning and evaluation aspects of teaching are not in line with the findings of the study conducted by Gloria (2006). This is because the researcher's study leads to the skills certificates ownership among the instructors at the workshop, where the study findings by Gloria (2006) are more inclined towards the ownership of certificate or license among teachers who are teaching the students with special needs in the United States.

In conclusion, this study shows that there are differences between the demographic aspects of the instructors with the CSA teaching methods practiced by the instructors. The review was carried out to look at the implementation of teaching method based in vocational college based on CSA. Objective study and the research question has been answered properly. The results of this study are expected to help other teachers, instructors, university students, technical institutions, investigators, and researcher himself.

## Acknowledgements

The author would like to acknowledge University Tun Hussein Onn Malaysia and Ministry of Higher Education for providing the grant RAGS /R042

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# The Secondary Mortgage Market in the USA: Features and Structure

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Received: May 25, 2015 Accepted: July 23, 2015 Online Published: August 16, 2015

doi:10.5539/ass.v11n24p224

URL: <http://dx.doi.org/10.5539/ass.v11n24p224>

## Abstract

In the present article author explores characteristics and structure of the secondary mortgage market of the United States of America. The study begins with the history of the development of the market. Thus, the author notes that the practice of issuing securities backed by mortgage assets started with the work of "Ginnie Mae". Such refinancing helped to provide "Fannie Mae," and then began the development of the turnover of securities, backed by pools of mortgages. Further the author considers: 1. the main features of the securities issued by mortgage institutions; 2. "Fannie Mae": the main types of equity securities (debt instruments); 3. "Fannie Mae": the purchase of mortgage loans on the free market system; 4. Tandem program; 5. Conduits: non-governmental mortgage organizations. In conclusion, the author infers that the experience of the USA arouses the particular interest. Since 1970, the United States achieved significant results and laid the foundation for the economic development of the USA.

**Keywords:** mortgage, USA, sphere, financial system, practice, market, securities

## 1. Introduction

United States is about "half the size of Russia; about three-tenths the size of Africa; about half the size of South America (or slightly larger than Brazil); slightly larger than China; more than twice the size of the European Union. ... Since the end of World War II, the economy has achieved relatively steady growth, low unemployment and inflation, and rapid advances in technology. ... The US has the most technologically powerful economy in the world, with a per capita GDP of \$54,800. In 2014, however, US GDP ran second to China's, when compared on a Purchasing Power Parity basis; the US lost the top spot, where it had stood for more than a century. In the US, private individuals and business firms make most of the decisions, and the federal and state governments buy needed goods and services predominantly in the private marketplace" (The World Factbook, 2015).

An important role is played by the secondary mortgage market. There are a number of features of the structure and operation of the secondary mortgage market of the USA. They are specified by it securities sell, guaranteed by the pledge of real estate.

It is commonly understood that "real estate is the modern term for land and anything that is permanently affixed to it. Fixtures include buildings, fences, and things attached to buildings, such as plumbing, heating, and light fixtures" (Legal Dictionary, 2015).

Firstly, appeared the mortgage market, and only later, after 1970, through the work of "Ginnie Mae", began the practice of issuing securities backed by mortgage assets. At the initial stage of formation of the secondary mortgage market, banks and organizations regularly faced the lack of liquidity for lending for such long-term period, as required by the mortgage. This situation has given rise to the need to refinance loans for housing. Such refinancing was able to provide with the founded by federal government agency "Fannie Mae". It solves this problem by buying debt from banks and savings and loan associations. This allows banks to obtain real money needed for its own functioning, and put the burden of the credit and default risks on the agency.

Then the turnover of securities, backed by a pool of mortgages, began to develop. These tools of the secondary mortgage market have caused the greatest interest among long-term investors. Among these were often insurance companies, pension and trust funds. Of course, the deals with such papers were one of direct interests of the credit agencies. Furthermore, the purchase of mortgage-backed securities for many of them provided an alternative to the original mortgage loans, which required additional costs for insurance and underwriting. Savings and loan associations showed the biggest interest in securities transactions, guaranteed by pools of

mortgages. It became apparent soon, that for mortgage commitments fell a very substantial part of the long-term investments at the national level. Securities market began to suffer from ever-increasing influence from the mortgage instruments.

## **2. Discussion: The Main Features of the Securities Issued by the Mortgage Agencies**

Mortgage agencies - "Fannie Mae", "Freddie Mac" played crucial role for the functioning of the secondary mortgage market activity. They evolved in its status from government agencies to private mortgage companies with state support. Government mortgage agency "Ginnie Mae" remains also on the significant place in such functioning.

By the mid-1990s., "Fannie Mae" acquired 262 billion USD of mortgage debt liabilities, while the volume of outstanding securities, backed by mortgage loans, exceeded 521 billion dollars (Kopeikin, Stebenev, Skorobogatko, & Penkina, 1999).

The dynamics of the acquisition is very interesting in terms of a retrospective. Thus, since its inception, and before the start of the 1960s the volume of mortgage loan portfolio, acquired by "Fannie Mae", grew, and then began to decline. By the mid-1960s, the volume of the portfolio has decreased in connection with their sale of a significant amount (1.5 billion US dollars). Gradually the volumes of loans purchased by "Fannie Mae" declined relative to the first period of its operation, which was caused by the development of the credit and investment markets, as well as the emergence of new mortgage companies.

"Fannie Mae" emitted the broad range of different debt instruments, secured by a mortgage. It is not accidental circumstance in the activities of this organization - a wider is such specter, the higher is the degree of satisfaction of various investors. In addition, the diversification of the various tools allows the agency to allocate and to hedge the risks of indebtedness better.

Let's consider the basic characteristics of the securities emitted by "Fannie Mae".

First, "Fannie Mae" commitments should be taken in the credit markets as the US securities, issued by a government agency. This rank is directly fixed in the founding documents of "Fannie Mae".

Second, the sale of "Fannie Mae" securities is carried out in a certain period in accordance with the monthly plan agreed with the US Treasury. The federal treasury ensures, that they conducted auctions to sell its own bonds and debentures organizations are supported by the state, not in conflict with the largest sell-debt itself, "Fannie Mae".

Third, "Fannie Mae" may, with the approval of the US Treasury Department, obtain additional loans finance specific programs, if the market is able to absorb the additionally issued securities.

Fourth, "Fannie Mae" freed from the obligation to make registration of the issue in Commission on Securities and Exchange Commission, as well as from executing settlements through the banks of the US Federal Reserve.

Fifth, "Fannie Mae" is entitled to receive an unlimited amount of investment from national banks.

It is difficult to overestimate the value of the given list of emission rights of "Fannie Mae". The collection of these rights contributed to financial stability of "Fannie Mae" for a long time. Prices for its securities only to a small extent were different with the price curve of US Treasuries bonds (Sharfman, 1995).

## **3. "Fannie Mae": The Main Types of Equity Securities (Debt Instruments)**

"Fannie Mae" produces the following negotiable instruments

- 1) Short-term (with a period of up to one year) zero-coupon bonds, placed at a discount from face value;
- 2) medium and long-term bonds with a fixed coupon;
- 3) medium and long-term bonds with a fixed coupon redeemable;
- 4) bonds redeemable coupon rate which increases to a certain value at specified intervals (callable step-up notes);
- 5) various types of so-called structured bonds (structured notes), the coupon rate or the amount of principal repayments, which are tied to a particular index;
- 6) subordinated debt (Kopeikin, Stebenev, Skorobogatko, & Penkina, 1999).

Let us consider the characteristics of these types of securities.

Firstly, "Fannie Mae" emits short discount bonds. Maturity varies from 30 to 270 days. According to its characteristics such commitments are close to commercial paper. The yield on them is announced publicly and saved until the next such declaration. Most often, these bonds are purchased by private companies, as well as by

local authorities and executive authorities.

The second type of securities is medium- and long-term commitments. Term to maturity is between 3 to 25 years. For such securities are set lower limits of the value of a single purchase is (depending on the type of securities) between 10 and 50 thousand dollars. Such large amount is explained by the desire to avoid the purchase of securities by private persons, traditionally storing their savings on accounts of save and loan organizations.

The third type of securities is subordinated bonds (debenture). In this context, they are convertible into other securities, such as shares of the "Fannie Mae". The possibility of conversion creates the potential to increase equity to the issuer. These securities represent unsecured bonds, the holder of which claims the right of a general creditor of all assets of the Issuer in respect of which has not been specifically stated, that they are used as collateral for other debt instruments.

Despite the absence of a specific provision, a certain status and ties to the government give securities issued by "Fannie Mae", high credit ratings, and investor loyalty (USA mortgage market experience: collection of materials, 1995).

The maximum size for the set of the possible borrowing for "Fannie Mae" is determined by the Department of Housing and Urban Development. The calculations are made on the basis of the financial statements, especially on equity, net income and the cost of subordinated convertible bonds. Regarding the latter, the maximum amount is also set. For example, in 1972, "Fannie Mae" had the right to borrow \$25, counting on every dollar of equity and subordinated convertible bonds could be emitted at the rate of \$2 for each \$1 ordinary share.

Generally speaking, the issue of ordinary shares is not the largest source of funding for the "Fannie Mae". However, organizations that service "Fannie Mae" loans are obliged to purchase a certain number of such shares. As a rule, such separate obligation of purchase is equivalent to 0.25% of the outstanding loans on the balance of the service organization. At the same time, "Fannie Mae" gets a certain part of the financing at the expense of providing a variety of services, including underwriting and advisory. Moreover, after the expansion of the areas in which the corporation can act as a private investor, significantly increased the income from such investment. Of course, funding may be involved due to the sale of securities in the portfolio.

#### **4. "Fannie Mae": The Purchase of Mortgage Loans by the Free Market System**

The acquisition of mortgage loans carried out by "Fannie Mae" in accordance with the system of the free market. It is believed that the program promotes the use of all the advantages, that the market situation has folding. This system adopted in 1968, and was originally used only in pricing and determination of the conditions of purchase loans, guaranteed by the authorized government agencies. After the "Fannie Mae" was able to include in its portfolio the loans without guarantee, on their purchase was also spread "the free market system".

Among all mortgage loans there were about 70% of typical ones. "Fannie Mae" carries out the purchase of credits, the size of loans that can be up to 95% of the cost of purchased housing. However, there is a condition, that the amount in excess of 80% must be insured against credit risk or is the agreement under which the seller of the loan will be required to buy it back in the event of default by the borrower. We also establish a limit on the size of the acquired loans. So, in 2000, the maximum amount was \$252 700.

"Fannie Mae" experts usually make sure that all of the proposed loans meet the high standards of underwriting. In a general sense, it means the procedure for lender assessing the probability of repayment of the loan by the borrower and co borrower. The procedure involves underwriting review and analysis of the solvency of the buyer of real estate with the mortgage loan. Among other things, "Fannie Mae" underwriting standards include a maximum ratio of payments to income, ratio of the maximum loan amount to the value of the property and the maximum amount of the loan. Loans which exceeds the maximum value and not suitable for the definition "relevant", are called "large loans" ("jumbo loans"). Such loans are purchased by large private corporations. Also, loans, which are fit to all specified standards, are called qualified.

The main feature of the system of free market is rejection of the acquisition of loans by fixed corporation prices. The price is determined through auctions. "Fannie Mae" holds auctions every two weeks, separately for secured and conventional loans.

Auctions are organized in several stages. In the first phase, on the day appointed for the auction, a potential seller of credit reports "Fannie Mae", about the volume of loans and allowed rate of return on them. The rate of income, below which the offer will not be considered, was established by corporation. Future Seller checked for compliance with the criteria. If such compliance is granted, the seller has four months to carry out the sale of all or part of it. "Fannie Mae" contracts with the credit seller are clothed in a standard form. Lending rate is obligatory requisite. Payment is made on the day of delivery of the loan. However, the contracts guaranteed by

the Housing Authority, payment can be made on the day of conclusion of the contract.

### 5. Tandem Program

Another type of special programs called "tandem program". This type of program includes transactions involving "Ginnie Mae" and provides, that the portion of the loans, acquired by "Ginnie Mae" for a certain period, remains at "Ginnie Mae" "custody" ("stored") or passed to the control of "Fannie Mae" and after that time again redeemed by investors and by the mortgage agencies too. The economic essence of the tandem program is that the purchase of mortgage loans from private lenders, "Ginnie Mae" makes at prices lower than on the market, and sells them to investors at market prices.

When transferring mortgages go under operation of "Fannie Mae", the latter acts as the commissioner and entitled to pay a commission. The amount of remuneration depends on the specific contract. Tandem program used to provide credit resources for low-income families under the state guarantees. At present, the effect of such programs is suspended for an indefinite period.

### 6. Conduits: Non-Governmental Mortgage Organizations

United Nations consider "non-governmental organization (NGO, also often referred to as "civil society organization" or CSO) is a not-for-profit group, principally independent from government, which is organized on a local, national or international level to address issues in support of the public good" (Non-governmental organizations, 2015).

For the purposes of the topic of this article a non-governmental organizations, also often referred to as "conduits", are functioning in the secondary mortgage market. In fact, these legal entities, that buy assets from several sellers, paying for such purchases at the expense of funds received from the securitization and commercial paper secured by mortgage assets.

Among conduits are four main organizations:

- 1) "Maggie Mae" - Marketing Corporation in the mortgage business. It was established in 1978 and based in Milwaukee, Wisconsin. "Maggie Mae" specializes in transactions with pools of mortgage loans established by the Corporation for insurance guarantee mortgage debt "Mortgage Guaranty Insurance Corporation".
- 2) "Salomon / RFU" The second largest corporation acts containing conduit "Salomon / RFU", which headquarters is located in Minneapolis, Minnesota. The company is the successor of the largest and most influential Corporation for housing financing.
- 3) HOMAK – abbreviation for the Corporation facilitating mortgage companies, created in 1982, as a branch of the National Association of homebuilders. It carries out its activities in the form of a corporation. The members of this association are the developers of this corporation themselves.

### 6. Conclusion

It should be noted that the US experience arouses the particular interest. Since 1970, United States achieved significant results and laid the foundation for the economic development of the United States.

However, a number of scandals related to improper enforcement and active fraudulent actions of a number of officials have occurred in recent years. It has cast a shadow on this industry.

In any civil country of modern globalized world civil society plays a critically important role. Emergence of modern civil society is closely connected with the development of private property which became an incentive for the activity of modern globalized person (Grudtsina, 2013).

Taking into account above, it appears advisable to further development of new regulation mechanisms of a number of organizational and legal issues of the mortgage market, which would be the result of further scientific developments.

Information technology became a part and parcel of most people's daily lives all over the globe (Galushkin, 2015), so it appears to be reasonable to implement new information technologies to make the mortgage market more open and information more accessible for interested persons. Access to such information is subject to the privacy acts, though some information might be made available even to the general public.

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# Explaining Career Satisfaction on the Basis of Alumni Satisfaction, Gap Period and Gender: Evidence from Turkish Higher Education

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Received: May 29, 2015 Accepted: July 17, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p229

URL: <http://dx.doi.org/10.5539/ass.v11n24p229>

## Abstract

Despite all the ink split and words spoken, career satisfaction concept has not been evaluated sufficiently in some research areas, notably education and alumni literature. We aim to explain career satisfaction extending for individuals' university education satisfaction, alumni satisfaction, unlike the previous studies. This paper also aims to shed light on differences in alumni satisfaction and career satisfaction in terms of employees' demographic characteristics. Furthermore, we design a model in order to explain individuals' career satisfaction associating with their alumni satisfaction, gap period and gender. In order to test the hypotheses, we draw a sample of 963 respondents graduated from a public university in Turkey. Linear regression analysis results indicate that alumni satisfaction explains significant level of career satisfaction. The explaining value is remarkable to turn researchers' attention to investigate this field. In addition, alumni satisfaction scores show that there are significant differences in alumni satisfaction based upon age and gap period. Career satisfaction scores also indicate that there are significant difference in career satisfaction in terms of gender, occupation and gap period, as seen in t-test and ANOVA results. Finally, according to ordinal logistic regression analysis results, individuals having higher degree of alumni satisfaction are 4.56 times likely to get upper level career satisfaction than individuals having relatively low degree of alumni satisfaction. Moreover, individuals getting a job in two years after graduated from university are 3.97 times likely to get satisfaction from their career than those getting a job two years later after graduated from university. In addition, males are 1.74 times more likely to get higher satisfaction from their career than females. So the present research contributes a literature gap about satisfaction of alumni and career fields.

**Keywords:** satisfaction, career, alumni, ordinal logistic regression

## 1. Introduction

Satisfaction is one of the important issues in almost every field in both theoretically and practically. Organizations consider their customers, states care about their citizens, and similarly universities have time for their students. Many scholars are interested in this issue by studying on its antecedents, measurement, dimensions and implications. In general, satisfaction means that what people expect from something/somewhere (Abbasi et al., 2011). In other words, if someone feels pleasure about that stem from comparing a thing's performance to its expectation, we can say that this person can be satisfied (Parasuraman et al., 1988). Job satisfaction is particularly known and interested side of this field. Mostly scholars argue that an employee may satisfy about monetary and non-monetary returns from his/her job (Cabrera et al., 2008).

However, in this study, we focus on the satisfaction concept in the context of higher education because of that our objective is to create some assumptions about alumni satisfaction. When a student graduates from a university, s/he would like to have some skills that require for job search and placement (Shirai et al., 2013). Some of these skills are knowledge, communication, problem solving, critical thinking, leadership, etc. So these skills will probably contribute his/her career development and satisfaction with career in the future. On that framework, it could be easily seen that career satisfaction is explained employees' academic competence and early career success (Dierendonck & Van der Gaast, 2013) as well as higher education satisfaction in other words

alumni satisfaction.

## 2. Conceptual Framework and Hypotheses Development

### 2.1 Alumni Satisfaction

Understanding the dimensions of alumni satisfaction is a vital for developing educational outcomes and success criteria and evaluating academic programs (Pike, 1994; Hartman & Schmidt, 1995; Pascarella & Terenzini, 2005). And also it is pivotal to find an answer to the question of “why is important to understand alumni satisfaction?” Some scholars have tried to explain some reasons such as helping educational institutions financially; being involved to them, providing positive word of mouth communication and supplying jobs (Enis, 1977; Hampton, 1983). Moreover, information from alumni surveys is used to inform fundraising, college marketing, employment preparation, return on public investment, and institutional accountability such as accreditation, program review, and performance funding (Erwin, 2012).

Alumni surveys have been spreading rapidly in academic field since 1979. Pace (1979) compiled studies from 1937 to 1976 and concluded that most studies focus on competencies acquired in college than alumni outcomes. Pace (1979) reported that most of alumni believed that their college educations were relevant to their jobs. After 1980s, it was observed the contrast of this aspect (Cabrera et al., 2003). Researchers at Ohio University have used an alumni survey in 1980s. The survey includes employment status, job satisfaction, the relevance of college experiences, etc. The result from this research was that most alumni were satisfied with their college and jobs. Also Pike (1993) found that alumni job satisfaction was positively correlated with satisfaction with the college. Feldman and Newcomb (1973), Lenning (1977), and Pascarella and Terenzini (1991) studied on relationship between student learning experiences and their development and satisfaction (Abbasi et al., 2011). Results from these studies are positive relations between these concepts (Pike, 1993). In addition to them, Gaier (2005) investigated the relationship between alumni satisfaction and alumni involvement (giving). According to his research, more satisfied alumni with academic experiences results in more likely to be involved with the college.

Scholars have tried to measure alumni satisfaction in terms of several determinants. Some of them have suggested that alumni satisfaction is a beneficial tool to have an idea about the effect of the universities on students (Pike, 1994; Pace, 1979). According to these studies, intellectual and personal developments were among key satisfaction outcomes (Umbach & Porter, 2002). In another study, alumni satisfaction with higher education was explained by a theoretical model includes performance-related outcomes-satisfaction relationships. Intellectual environment and career preparation were handled as antecedents of alumni satisfaction in Hartman and Schmidt's study (1995). Pascarella and Terenzini (1978) indicated that there are two particular outcomes of college -intellectual development and personal development-. According to previous studies, both individual and environmental factors affect student and alumni satisfaction.

### 2.2 Career Satisfaction

Careers have been defined as a window through which we can see how individuals' choices are interacted with developments in society, organizations, and personal lives (Moen & Han, 2001). In terms of role theory, career is defined as a set of occupational experiences and roles that make up one's working life (Schein, 1975). Another definition of career is the combination and sequence of roles (pupil or student, leisure, citizen, worker, spouse, parent, and other work or social roles) played by a person during the course of a lifetime (Super, 1980). Companies to keep employees in organization use the concept of career. Returning the literature, the construct was put forth by Roe (1956) and contributed by Super (1957) and Tiedeman and O'Hara (1963). In recently career literature, the keywords of career are career flexibility (Donnelly, 2015), life-long term learning (O'Neill et al, 2015; Fletcher et. al, 2010), skills (Itani et al., 2015), affairs are referred to as network and matrix organization structures or projects. (Sullivan et al. 2006) Therefore, activities after graduation by universities are important and required on individuals' life-long term learning and establishing network. Before describing career satisfaction, the difference between career and job satisfaction has to be mentioned, because there is some researches indicated the relationship between alumni satisfaction and job satisfaction (Pike, 1993); Feldman and Newcomb (1973), Lenning (1977), Pascarella and Terenzini (1991). Career satisfaction is defined as the level of overall happiness experienced through one's choice of occupations. On the other hand, job satisfaction depends on work conditions, job location, market and on relates to one's current work situation. On that framework, it could be seen that career satisfaction -like job satisfaction- can be explained by alumni satisfaction.

Career satisfaction has been defined in many different ways. Generally, career satisfaction is the satisfaction that individuals derive from the intrinsic and extrinsic aspects of their careers, including pay, advancement, and developmental opportunities (Greenhaus et al., 1990). Career satisfaction is also based on Holland (1959) and

Super's (1984) career choice theory, and Herzberg's (1964) dual factor theory. According to Holland (1959), career satisfaction of an employee depends on his/her experience, ability, value and achievements. Super (1984) pointed out that changes in duties, a new implementation in the organization or changes in employee's job responsibilities affect career satisfaction. Furthermore, working conditions, allocation of financial rewards workload, stress and conflicts between employees' work and family life also affect career satisfaction (Dobson et al., 2007; Mc Ginley, 2009; 14). Satisfaction is based on these factors and how employees perceive them. This view stems from Herzberg's theory that is pointed working conditions; salary and promotion are concerning organizational factors. In addition, individual factors like achievement, nature of work, recognition and development are motivator factors (Dinham & Scott, 1997).

Career satisfaction is important for both personal and organizational performance. Also it decreases turnover rate and absence. One of the most important outputs for an organization is the workforce and organizations make highest investments to it (August & Waltman, 2004). Using this source efficiently and effectively, it depends on the employee's desire and enthusiasm to work. Thus, organizations have to interest and give importance to their career satisfaction, if they want their employees to be efficient. (Kumudha & Abraham, 2008). As a result, we can say that career satisfaction is an important result of career planning and career management processes. The objective of another career satisfaction study was to measure proactive personality and career success. Participants of this study were alumni of a large private Midwestern university. Result of this study showed that innovation, political knowledge, and career initiative had positive relationships with career progression (Seibert et al., 1999).

Previous studies indicate the relationship between career satisfaction and other organizational outcomes. However, the most important gap in related literature is about the relationship between alumni satisfaction and career satisfaction. Career success of individuals in relation with the organization was handled in the previous studies; nevertheless, university education and extracurricular activities' effects on alumni career has not examined, considering that occupational choice is one of the dimensions of Gutteridge's (1983) career planning model. Now that these are personal and organizational career development and this dimension is mostly affected by educational choice. As people make choices and graduate from universities, they search a job related to their educational background and they make their occupational choice. Therefore, unlike the previous research, career and education relationship has to be research in detailed. To know which criteria will influence students' choices is necessary for suppliers of educational services. Career satisfaction studies provide considerable knowledge about which services will help students achieve their goals, and which factors determine overall student satisfaction or dissatisfaction (Hartman & Schmidt, 1995). On the basis of the researches on satisfaction of alumni and career, as mentioned before, we propose the following hypothesis:

**Hypothesis 1:** There is a relationship between alumni satisfaction and career satisfaction. ( $1H_1: \beta \neq 0$ )

Alumni satisfaction is differentiated according to demographic characteristics of alumnus. For instance, Pace (1979) found that women tended to be more satisfied than men (Pike, 1994). Similar to Pace (1979), Phillippi (1990) indicated that women tended to be more satisfied with college than men. Considering alumni satisfaction should investigate in terms of some demographic characteristics, we propose the following hypothesis:

**Hypothesis 2:** There is a significant difference in alumni satisfaction in terms of (a) gender, (b) age, (c) marital status, (d) occupation and (e) gap period. ( $2H_1: \mu_a \neq \mu_b \neq \mu_c \neq \mu_d \neq \mu_e$ )

In August and Waltman's study (2004), work and non-work influences were examined on career satisfaction among a sample of dual-earner couples. As a result of this study, only spouse support was significantly correlated with career satisfaction for husbands and work-related influences were significantly correlated with career satisfaction for both husbands and wives. Another research investigating male and female physician career satisfaction difference indicates more females than male physicians perceive that gender influences on career advancement. In addition, female physician relatively low career satisfaction than male counterparts (Gerson et al., 2007). Different from the results of researches, Yutzie et al. (2005) examined the surgeon career satisfaction and found both genders satisfied with their surgical careers. So the concept of career satisfaction could be investigated according to alumni's demographic structure.

**Hypothesis 3:** There is a significant difference in career satisfaction in terms of (a) gender, (b) age, (c) marital status, (d) occupation and (e) gap period. ( $3H_1: \mu_a \neq \mu_b \neq \mu_c \neq \mu_d \neq \mu_e$ )

Considering researches indicating significant relationship between alumni satisfaction and career satisfaction as well as researches showing some demographic variables explain career satisfaction, which was attained from previous research, we suggest the following hypothesis:

**Hypothesis 4:** Individuals' (a) gender, (b) age, (c) marital status, (d) occupation and (e) gap period and (f) alumni satisfaction level related with career satisfaction. (4H1:  $e^{Ba}, e^{Bb}, e^{Bc}, e^{Bd}, e^{Be}, e^{Bf} \neq 0$ )

### 3. Method

#### 3.1 Participants

In order to determine the relationship between alumni satisfaction and career satisfaction, we have collected data from alumni graduated from a public university in Turkey. The university has an Alumni Information System (AIS) archiving the alumni's information, offering a network for alumni as well as serving job and internship advertisements for its members. After the graduation, students have to register for AIS so that they can use it. AIS has 111 139 members, however; only 17 366 members share their contact information. Considering that population of this research is 111 139, sample size must be minimum 384 (Krejcie & Morgan, 1970). In order to reach 384 alumni, 1000 alumni was selected randomly and sent the questionnaire to them. 971 alumni responded the questionnaire with a %73 response rate, but 963 of them are available for statistical analysis.

As seen characteristics of the alumni sample in Table 1, among 963 respondents 66% are male, 49% are between the ages of 22 and 26; 68% are single; 71% are engineers and 74% have got a job in 6 months since graduated from the university (gap period).

#### 3.2 Measurement Instruments

The questionnaire has comprised 8 items to measure alumni satisfaction, 5 items to measure career satisfaction, 7 open ended questions to determine demographic characteristics of alumni and 1 multiple choice question to ask "what kind of things do you express your satisfaction with your university?".

As an independent variable alumni satisfaction was measured by means of different general satisfaction and alumni satisfaction scales adopted by Hartman and Schmidt (1995) who have developed the scale which inspired by Hunt (1977), Oliver (1980) and Pike's (1994) studies. Career satisfaction was measured by using Greenhaus, Parasuraman and Wormley's (1990) career satisfaction scale. We ask for respondents to grade items according to five-point scale ranges from "strongly disagree" to "strongly agree".

Table 1. Characteristics of the alumni sample

Variable	Number	(%)	Variable	Number	(%)
<b>Gender</b>			<b>Occupation</b>		
Male	624	66 %	Faculty of Science	117	12 %
Female	319	34 %	Architecture/ Engineering	667	71 %
<b>Age</b>			Education	14	2 %
22-26	457	49 %	Business Economics	65	7 %
26 -31	228	24 %	School of Vocational Studies	22	2 %
32-39	126	13 %	Art and Design	20	2 %
40-47	63	7 %	Graduate School of Natural Sciences	17	2 %
48-56	43	4 %	Graduate School of Social Sciences	22	2 %
57-66	15	2 %	<b>Gap Periods</b>		
Up to 66	9	1 %	0-6 month	635	74 %
<b>Marital Status</b>			7-12 month	111	13 %
Single	636	68 %	13-18 month	47	5 %
Married	304	32 %	19-24 month	22	3 %
			Up to 24 month	39	5 %

#### 3.3. Data Analysis

The correlation among variables in the scale is an essential prerequisite for the factor analysis. Therefore, KMO and Barlett's Test of Sphericity results were taken into account, before alumni satisfaction and career satisfaction scales were factor analyzed. KMO value of alumni and career satisfaction scales was 0,945 and Bartlett's Test of Sphericity is significant ( $p < 0.05$ ), so, variables in the scales was significantly correlated to factor analyzed.

Conducting a single exploratory factor analysis of alumni satisfaction and career satisfaction scales, results

indicated that there are two separate factors that were extracted with eigenvalues of one or greater. In addition, both two factors have explained 75.9 percent of the total variance. By using the Varimax rotation method, it was obvious that alumni satisfaction scale's 8 items were settled in a factor as well as career satisfaction scales 5 items were settled in the other. So, no items were dropped from subsequent analyses, as seen in Table 2. Following the factor analysis, reliability analyses have conducted to measure internal consistency of the alumni and career satisfaction scales. Cronbach Alpha values for Alumni Satisfaction Scale was found 0.95 and for Career Satisfaction Scale 0.93. These results indicated that the scales are found to be reliable to measure the concepts.

Table 2. Factor loadings

FACTORS	Factor Loadings	Mean	Variance exp. (%)	Cronbach Alpha ( $\alpha$ )
Factor 1: Alumni Satisfaction (8 Items)		3.59	29.629	0.95
AS1. I am satisfied with my decision to choose [university name] for my university education.	.875			
AS4. I think that I did the right thing when I decided to chose [university name].	.867			
AS3. My choice to be educated at [university name] was a wise one.	.866			
AS2. If I had got a univerisity education, I would have chosen the [university name] again.	.851			
AS8. I would recommend [university name] to students interested in a business career.	.803			
AS5. My educational background gave me an advantage over students from other schools on my first job.	.771			
AS6. My educational background prepared me well for my current position.	.759			
AS7. My educational background adequately developed my technical skills.	.708			
Factor 2: Career Satisfaction (5 Items)		3.54	31.621	0.93
CS12. I am satisfied with the progress I have made toward meeting my goals for advancement	.873			
CS10. I am satisfied with the progress I have made toward meeting my overall career goals.	.860			
CS11. I am satisfied with the progress I have made toward meeting my goals for income	.848			
CS9. I am satisfied with the progress I have achieved in my career.	.825			
CS13. I am satisfied with the progress I have made toward meeting my goals for the development of new skills.	.737			
KMO=0.945				
Chi-Square Bartlett's Test (p=0.000)				75.975

After controlling the scale reliability and consistency, we conducted correlation and linear regression analyses to attain the association between alumni satisfaction and career satisfaction. After that we investigated the differences alumni satisfaction and career satisfaction in terms of demographic characteristics of individuals with analysis of variance. In order to explain career satisfaction in detail, we transformed career satisfaction data into ordinal nature (low-medium-high) first and then we conducted logistic regression analysis between career satisfaction (ordinal) and alumni satisfaction (interval), gap period (ordinal), marital status (categorical), gender (categorical), college major (categorical) in single model. We applied Drory and Glukinos (1980) method for career satisfaction as low, middle and high level of career satisfaction of individuals. Total scores of career

satisfaction were allocated below %25, from %25 to % 75 and above %75, and entitled low, medium and high level of career satisfaction, respectively. Career satisfaction was measured 5 items and total scores changed between 5 and 25. For, career satisfaction was measures 5 items, 0 to 10 scores entitled low level career satisfaction, 11 to 19 scores as medium level career satisfaction and 20 to 25 as high level career satisfaction.

### 3.4 Results

Correlation and regression analyses are conducted to test the first hypothesis. As seen Pearson Correlation Coefficient value (0.627), there is a moderate positive relationship between alumni satisfaction and career satisfaction. In addition, the result of the regression analysis pointed out that alumni satisfaction explains 39% of variance of career satisfaction. So, the first hypothesis is supported.

Investigating whether or not there is a difference in alumni satisfaction and career satisfaction in terms of alumni's demographic characteristics, we have done variance analyses to test hypotheses 2 and hypotheses 3. One-way between subjects ANOVA has been conducted in order to research the differentiation of alumni's satisfaction and their career satisfaction in terms of demographic characteristics (gender, age, gap period, marital status and occupation) as well as Tukey HSD Test has been done to see Post Hoc comparison between groups.

Table 3 summarizes that there are significant differences in alumni's satisfaction based upon age and gap period. Given Tukey test results, we identify the differences between groups and which groups mean scores higher. Tukey HSD test indicates that the mean score for satisfaction of alumni between the ages of 48 and 56 is higher than satisfaction of alumni between the ages of 32 and 39 ( $4.011 > 3.364$ ). The test also clarifies that the mean score for alumni satisfaction in terms of gap periods. That is, alumni whose gap period between 7 and 12 months have higher alumni satisfaction than alumni whose gap period 2 years and over ( $3.50 > 2.95$ ). In addition, the test indicates that the mean score for satisfaction of alumni whose gap period in the 0-6 months is higher than satisfaction of alumni whose gap period in the range 2 years and over ( $3.68 > 2.95$ ). Consequently, hypothesis 2 is partially supported in the research model.

Table 3. ANOVA test results summary

Difference	Gender		Age		Gap Period		Marital Status		Occupation	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Alumni Satisfaction		X	X		X			X		X
Career Satisfaction	X			X	X			X		X

As seen in Table 3, there are significant differences in career satisfaction in terms of genders, occupations and gap periods. Tukey HSD test shows that the mean score for male's career satisfaction is higher than women's career satisfaction ( $3.59 > 3.46$ ). Another differentiation has been found in occupations, in that career satisfaction of alumni having graduate degree in faculty of education is higher than alumni having graduate degree in faculty of science ( $4.0143 > 3.3724$ ). Tukey test indicates the mean scores for career satisfaction in terms of gap periods. In other words, alumni whose gap period between 0 and 6 months have higher career satisfaction than between 13 and 18 months ( $3.67 > 3.08$ ). In addition, alumni whose gap period 2 years and over have lower career satisfaction than between 7 and 12 months, 19 and 24 months as well as 0 and 6 months ( $2.95 > 3.46 > 3.63 > 3.67$ ). As a consequence, hypothesis 3 is partially supported in the research model.

Finally, we analyzed which demographic characteristics could explain individuals' career satisfaction, as indicated in hypothesis 4. Achieving these issues, we conducted ordinal logistic regression analyses career satisfaction with alumni satisfaction and demographic variables. As mentioned before career satisfaction was evaluated ordinal nature (low-medium-high) and demographic variables are categorical and ordinal as well. Research models are structured one dependent variable (career satisfaction) and all independent variable (age, gap period, marital status, gender, occupation and college major) are evaluated one single equation. Results indicated in Table 4.

Table 4 represent good fit model ( $X^2(5, N= 963) = 295.365; p=0.000$ ) and Pseudo  $R^2$  values are about 0.304 and 0.373. Results indicate that alumni satisfaction, gap period and gender are significantly relation with career satisfaction. Overall model is significant and alumni satisfaction, gap period and gender explain approximately 37 % variance of career satisfaction. Parallel lines test indicates non-significant results, so we can say one equation was valid for proportional odds tests ( $p=0.241$ ). We can interpret that for one unit decrease in alumni

satisfaction the odds representing high level career satisfaction versus the combined middle and low level career satisfaction categories are 4.56 times greater, given that all of other variables in the model are held constant. Similarly, the odds of combined representing high and middle level career satisfaction categories versus low 4.56 times greater (test of parallel lines support this result). So, it can be said individuals having higher degree of alumni satisfaction are more likely to get upper level satisfaction from their career than individuals having relatively low degree of alumni satisfaction.

Table 4. Results of ordinal logistic regression between demographic characteristics, alumni satisfaction and career satisfaction (used logit link function)

	Variable	Estimate	Odds = EXP(Est)	Sig.	Wald Statis.	Test of Parallel Line (Ch.Sq/ Sig)
<b>MODEL</b>	Threshold Career Satisfaction					6.734/ p= 0.241
<b>Alumni</b>	(Low-Medium)	2.619		0.000	56.695	
<b>Satisfac.</b>	(Medium-High)	7.372		0.000	248.006	
<b>+</b>	Location Alumni Satisfaction	1.519	<b>4.56</b>	0.000	206.763	
<b>Demog-</b>	Gap Period (Below 24 months)	1.379	<b>3.97</b>	0.001	10.838	
<b>raphics</b>	Gap Period (Above 24 months)	0 <sup>a</sup>				
<b>→</b>	Gender (Man)	0.558	<b>1.74</b>	0.001	10.513	
<b>Career</b>	Gender (Woman)	0 <sup>a</sup>				
<b>Satisfac.</b>	Result Cox&Snell R <sup>2</sup> /Nagelkerke R <sup>2</sup>					0.304 / 0.373
	X <sup>2</sup> (Model Fit)					295.365; p=0.000

<sup>a</sup> This parameter is set zero because it is redundant. Dependent variable: Career Satisfaction (Model), Independent Variables: Alumni Satisfaction, Demographics (Gap Period, Marital Status, Gender, College Major) EXP: Exponent, Est: Estimate. (Only significant results were indicated in Table. Age, marital status, occupation and college major are non-significant relationship between career satisfaction.)

In addition, the results in model in Table 4 shows males respondents 1.74 times more likely to represent high level career satisfaction with regard to middle and low level career satisfaction than female counterparts. Likewise, males are 1.74 times more likely to represent high and medium level career satisfaction with regard to low level career satisfaction than females (test of parallel lines support this result). On the other hand, marital status does not significantly explain career satisfaction ( $p=0.401>0.05$ ) in the model.

Table 4 also indicate that one unit decrease in gap period (from above 24 months to below 24 months) the odds representing high level career satisfaction versus the combined middle and low level career satisfaction categories are 3.97 times greater, given that all of other variables in the model are held constant. Also the odds of combined high representing high and middle level career satisfaction categories versus low 3.97 times greater (test of parallel lines support this result). The results could be interpreted that individuals finding a job in 2 years after graduated from university have upper level satisfaction from their career than those finding a job following 2 years after graduated from university. Considering the impact of alumni satisfaction, gap period, marital status, gender and college major on career satisfaction as seen in Table 4, we could say hypothesis 4 is partially supported.

#### 4. Conclusion and Discussion

Previous studies have examined separately some outcomes stem from alumni satisfaction (Pace, 1979; Pike, 1993; Hartman & Schmidt, 1995; Gaier, 2005) and career satisfaction (Seibert et al., 1999; Kumudra & Abraham, 2008). We want to handle these concepts together. For this reason, it is a pioneering research to explore relationships between alumni satisfaction and career satisfaction. The current study tested this relation for 963 alumni in the same university. As seen in results, three critical findings of this study support our hypotheses. First, we found that there is a moderate positive relationship between alumni satisfaction and career satisfaction. This result means that these two concepts are so related and need to be examined together. We try to meet this need in the related literature.

Second, there is a significant difference in alumni satisfaction in terms of age and gap period. We can comment on results regarding age in a different way. We can say that young people have more expectations from

something such as universities, companies, lifestyles, etc. On the other hand, old people behave generally contented to something happened. So, we can think that this result can be considered as an output of this situation. As we look the gap period results, we see that newly alumni have higher satisfaction than the others. Alumni got a job in a few months have higher alumni satisfaction and also career satisfaction (it will be mentioned at below). Because job placement can positively support the perception about the university graduated. People can assume that they had good education if they get a job easily and quickly. So, they feel satisfied from the universities.

Third, there is a significant difference in career satisfaction in terms of gender, occupation and gap period. Results regarding gender, unlike previous studies, show that men have higher career satisfaction than women. There can be two reasons for this result. Firstly, YTU is a popular university especially in engineering fields and men prefer engineering faculties/departments than women in Turkey. This trend may explain why these results occur. Secondly, the men percentage of our sample is 66%. When we assess career satisfaction results in terms of occupation, we see that alumni from faculty of education have higher career satisfaction than alumni from faculty of science. Lack of laboratory facilities & equipment can be one reason of this data because it may cause the inconsistency between education and real business conditions and then affect people's career satisfaction. Besides for gap period results, we can say that there is a negative relationship between gap period and career satisfaction. When the gap period increases, career satisfaction decreases. To not get a job after graduation can make people hopeless and unsatisfied from many things including career.

Fourth, career satisfaction could be explained combined alumni satisfaction, gap period and gender. Individuals having higher degree of alumni satisfaction are more likely to get upper level career satisfaction than individuals having relatively low degree of alumni satisfaction. Moreover, individuals getting a job in two years after graduated from university are more likely to get satisfaction from their career than those getting a job two years later after graduated from university. In addition, males are more likely to get higher satisfaction from their career than females. Significant results of this overall model illustrates that satisfaction from university that individuals graduated from, whether could get a job rapidly after graduation and genders are predictors for career satisfaction. Considering that prestigious universities have made effort to integrate some companies and institutes, alumnus graduated from those could be higher satisfaction from their career.

The results and conclusions from this study need to be considered in some limitations. The major limitation of the present study is about sample. The career satisfaction data of this paper presents an overall assessment to be generalized because of career diversity among the participants of this study. However, alumni satisfaction results cannot be generalized like career satisfaction because we collected alumni data from only one university. On the other hand, career diversity could be a limitation because opportunities differentiate from one area to another. Taking the majority of sample (71%-engineers) and scope of the sample university (technical education) are into consideration, we partially eliminate the career diversity issues. The other limitation is regarding with our model with just two variables. The model can be modified with some other variables such as alumni involvement (giving). Every limitation can be considered as a future research direction.

The results of present research contribute to universities in a different way by proposing practical implications. Universities need to develop themselves. In addition to educational improvement, this requires receiving feedback from students and alumni. Many universities conduct a survey to their students. But then alumni has disregarded by universities. This study emphasizes the importance of alumni satisfaction assessment and its relation with career satisfaction. This evaluation can contribute the prestige, popularity and preferability of universities when sharing with the public and potential students. On the other hand, the matching alumni and career satisfaction gives universities a chance to change or update the educational schedule in their faculties. So that, they can compare realized and expected education in terms of career options.

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# Lack of Consumer Awareness: A Major Challenge for Electricity Consumer Protection in Nigeria

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Received: May 30, 2015 Accepted: July 7, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p240

URL: <http://dx.doi.org/10.5539/ass.v11n24p240>

## Abstract

**Purpose:** This study explores the challenges for consumer protection in the Nigerian deregulated electricity sector. The study argues that ignorant and unenlightened consumers are easy prey for exploitation in the marketplace. Educating the consumer minimizes consumer exploitation and enhances consumer protection.

**Design/methodology/approach:** The study is qualitative. Twenty in-depth semi-structured interviews were conducted with the relevant stakeholders involved in consumer protection and standard setting in the Nigerian electricity sector. The study adopted the Benner's Interpretive Phenomenology and explored the everyday practical experience and perspectives of the participants on the challenges of consumer protection. The analysis was thematically conducted and accordingly supported by sufficient excerpts.

**Findings:** The study found several challenges for consumer protection in the Nigerian electricity sector. Emphatically, the participants were unanimous on lack of awareness as the major challenge for the electricity consumers' protection.

**Research limitations:** The research participants were only staff from consumer protection and products standard setting agencies, academics, and heads of consumer organizations. Additionally, the paper only addressed the challenge of lack of awareness and the data collection constrained by funds paucity and difficulties in securing appointments with the busy participants.

**Practical implications:** The study suggests that consumer protection agencies need to do more in the area of consumer education and enlightenment otherwise the exploitation of the Nigerian electricity consumers will continue.

**Originality/value:** Consumer protection literature abounds. This study is, however, the first attempt at qualitatively exploring in-depth the challenges for electricity consumers in deregulated electricity sector. The study emphasized the value of consumer awareness for better consumer protection.

**Paper type:** Research Paper

**Keywords:** consumer awareness, consumer education, consumer ignorance, consumer protection, Nigerian electricity industry

## 1. Background

Nigeria like many countries has a legal and institutional framework for consumer protection. While the Consumer Protection Council Act, 1992 (hereinafter referred to as the CPC Act) is the overall Nigerian consumer protection statute for both the goods and services industries, other sector specific laws exist. The Electric Power Sector Reform Act, 2005 (hereinafter referred to as the EPSRA) for instance, is the electricity industry specific law. From the institutional perspectives, the CPC Act established the Consumer Protection Council (CPC) as the highest consumer protection agency to implement the provisions of the CPC Act and all other consumer protection laws for the betterment of consumers. Apart from the CPC, the Nigerian Electricity Regulatory Commission (NERC) is the electricity sector regulatory agency established by the EPSRA to superintend on the electricity industry. The mandates of the NERC include the protection of electricity consumers. Lack of

consumer awareness on the existence of these legal and institutional arrangements is undeniably a problem for consumer protection especially in developing countries such as Nigeria. This lack of awareness is a big challenge for the consumer protection systems. With over one hundred seventy million people (WB, 2013; CIA, 2014; Ismail et al., 2012) and with a utility such as electricity in private hands, Nigeria is not exempted. Apart from Nigeria being a consumer economy (Ezeonyejiaku, 2015), the illiteracy level in the country stood at about 40 percent (CIA, 2014). A greater percentage of the Nigerian population is exploited and faces daunting challenges in getting its consumer rights protected. The lack of awareness may account for this challenge. Although the consumer exploitation happens in all sectors especially the deregulated industries such as the banking, the telecommunications (Atoki, 2015; Okon, 2015; Ogu, 2010; Oghojafor et al., 2014; Okwuoke, 2014; Dada, 2013), the consumer exploitation is more worrying in the recently deregulated electricity industry where consumer rights violation is at an alarming proportion (Eshemitan, 2015; Opara, 2015). The industry is characterized by poor and epileptic electricity services provision, arbitrary and estimated billings, metering crisis, influx of substandard electricity gadgets and equipments as well as other consumer abuses (Kunle Kalejaye, 2013; Mbamalu & Adeoye, 2014; Asu & Osu, 2014; Ogunbanjo, 2014; Nwakaegho, 2015; Adekoya, 2014). According to the Director General of the CPC, complaints received by the CPC over consumer abuses in the electricity industry are the highest compared to complaints received from any other sector of the Nigerian economy (Opara, 2015; Eshemitan, 2015). Despite the existence of laws such as CPC Act and the EPSRA, and despite the established agencies such as the CPC and NERC, consumer rights abuses continue in the Nigerian electricity industry and have been a source of serious concerns. Notwithstanding the concerns generated by these consumer abuses, research on the level of consumer rights awareness is scarce in Nigeria.

Qualitative research is about deeper understanding of a phenomenon (Patton, 2002). But Studies are, however, scarce on the perception of relevant stakeholders especially consumer protection agencies, heads of consumer organization, etc. of the leading challenges of consumer protection in the developing countries. The need for a deeper and thorough understanding of the perception, feelings and experience of the relevant stakeholders involved in consumer protection and products standards setting in the Nigerian electricity sector prompted this research. The paper, therefore, investigated the understanding and the experiences of officials of the consumer protection and products standard setting agencies, and consumer experts in the work of consumer protection. Because of the unanimity of the participants on the lack of awareness as a major challenge of consumer protection, this paper examined in detail the lack of awareness and its sub-themes as a major challenge for consumer protection. The study aims at providing information and insight to policymakers and even the electricity service providers on the challenges of consumer protection and how best to improve in that regards. This research would assist immeasurably in advancing the course of the electricity consumers who suffer from poor and non-service in the electricity industry.

## **2. Literature Review**

In business circle, morality and virtuous conducts such as honesty and integrity are not so important (McKecnie & Akinbami, 2011; Barry, 1991; Cheffins, 1997). Profit at all cost is the driving motive (Zubizarreta & Lang, 2015; Ponlanyi, 1997). In deregulated markets, private firms commit a lot of malpractices in pursuit of greater profits at the expense of the consumer (Ho & Sin, 1988). In fact, evidence of market manipulations by private firms at the consumers' expense abounds (Andrews-speed et al., 2014; Evans, 2015; Jansson, 2010; Tiu Wright, Newman, & Dennis, 2006). How different are business enterprises in Nigeria?

### *2.1 Consumer Awareness*

According to Dickinson and Shaver (1982: 241) "consumer awareness is the first line of defense against consumer problem." To be informed, the consumer needs to be educated and enlightened (Chatterjee & Sahoo, 2011). But from the literature, the lack of consumer awareness cut across all jurisdictions (Verhage, 1987; Agbonifoh & Edoreh, 1986; Widdows et al., 1995; Donnelly & White, 2013; CFPB, 2015; Anong & Kunovskaya, 2013). Though the problem of low level of consumer awareness appears to be on the high side in developing countries. Recent Consumer International (CI) studies on the state of consumer protection across the globe confirmed that lack of consumer awareness is more a problem of the developing countries (CI, 2015; CI, 2013). Although the above literature is on the lack of awareness, this work is, however, different. While the methodology adopted by most of the studies reviewed was quantitative, the methodology of this study is qualitative. The research approach in the previous literature is, therefore, limited and cannot be utilized to gain deeper understanding of the phenomenon of consumer awareness a task this study carried out in view of the qualitative methodology adopted.

Consumer Ignorance has a profound effect on consumer protection (Monye, 2008; Kumar & Rao, 2015).

Existing studies on the topic are limited. While Kumar Rao (2015) focused on India and utilized quantitative methodology, Felicia (2008) talked superficially about consumer ignorance in Nigeria and her paper was conceptual and not empirical. In other words, consumer ignorance has not been studied in detail especially in the context of Nigeria. The current study being empirical would, therefore, fill that gap. Additionally, the complexities of goods and services and the way they are marketed today pose more challenges to the consumer (Chatterjee & Sahoo, 2011; Hannigan, 1976; Merwe et al., 2014; Yuthayotin, 2015; Best & Andreasen, 1977). Ignorant consumers not being experts find it difficult to ascertain the quality, standard, as well as the performance of these products. Consumer education becomes handy.

## *2.2 Consumer Education*

Education increases consumers' awareness (Dickinson & Shaver, 1982; Merwe et al., 2014). Globally, consumer education has been recognized by scholars, international organizations and institutions as a tool for the protection of the consumers from the deception widespread in the marketplace. Consumer education is considered a veritable tool for improving the lives and safety of the consumers and has been an important priority to both EU and the United Nations system (Steffens, 2010; Boush et al., 2009; Schuh & Kitson, 2003; Brennan & Ritters, 2003). It is in recognition of the value of consumer education that the United Nations Guidelines for Consumer Protection, 1985, declared consumer education as one of the eight consumer rights (Widdows et al., 1995; UN, 1985). In the same year, CI the global and leading consumer organization in collaboration with its Southeast Asian regional office created a standing committee on consumer education (Jensen, 1991). In the EU, consumer education is a legal right and integral to the EU consumer policy (Benn et al., 2003; Goldsmith & Piscopo, 2014). By Article 153 of the Treaty of Amsterdam (EU, 1997), consumer education is among the general objectives of the EU consumer protection policy. Because of the value the EU attached to consumer education, the European Commission recently made raising consumer rights awareness and knowledge as the twin objectives behind the issuance of the European Consumer Agenda (EC, 2012). At the African level, the example of Botswana and Kenya are quite instructive. In Botswana, consumer education is incorporated into the secondary school and university educational curriculum since 1990 (Makela & Peters, 2004). While consumer education is a priority to the UN, the EU and even in some African countries such as Botswana, it is not the case in the Nigerian context. Consumers need consumer education through both formal and informal means (Schuh & Kitson, 2003). But consumer education is yet to be incorporated in the Nigeria's educational curriculum. The impacts of omitting consumer education in the education curriculum and the need for its incorporation would be revealed in the course of this study. In fact, scholarly literature on consumer education and the effects of lacking it especially in developing countries such as Nigeria are limited or scarce. This study, therefore, contributes in that regards.

Lack of consumer rights education and consciousness is according to Mollah (2014) a barrier that prevents the poor and other vulnerable members of the society from accessing justice in Bangladesh. The lack of education and consciousness led to the evolution of public interest litigation in Bangladesh. Public interest litigation is not institutionalized in Nigeria. Although Mollah's study is on a developing country, it is not on Nigeria. The methodology adopted by Mollah (2014) though qualitative, differs from our studies in approach in terms of qualitative methodology and data collection. While Mollah relied on secondary materials in published literature, case law, and internet sources, this study relied on both empirical data and secondary data respectively sourced through in-depth interviews and available literature.

## *2.3 Consumer Information*

"Consumer information and education are key tools in consumer policy toolbox"(Thøgersen, 2005, p. 155). Information is a means of consumer empowerment (Thøgersen, 2005) but too much information leads to information overload and affects effective consumers' decision. Requisite consumer information is, however, vital for consumer empowerment and proper functioning of markets (Hayek, 1945; McKecnie & Akinbami, 2011; Keller & Staelin, 1987; Tiu Wright et al., 2006; Herbig & Kramer, 1994; Schmitz, 2013). Howells (2005) believed that information plays a great role in consumer protection. Howell (2005) posits that "central to the government's philosophy is the belief that information is the most efficient means of protecting consumers." This philosophy is more useful in countries where illiteracy is on the high side. In other words, the value of information to the consumers has been overlooked in consumer protection literature especially in developing countries hence the need to be studied in Nigerian setting. Further on the value of consumer information, Muris (1991) argues that price information for instance, is "fundamental" in shaping consumers' purchasing decision especially in a competitive environment. Widdows et al. (1995) share the same opinion. They consider price information "essential" in shaping consumer decision. Much as the consumer should be informed, he should not be overloaded as too much information confuses the consumer, erodes consumer confidence and satisfaction

(Lee & Lee, 2004; Sicilia & Ruiz, 2010). In contrast, requisite consumer information as opposed to overload, is, however, useful in improving the purchasing decisions of consumers (Gibson, 1992). In terms of knowledge about the markets and its workings, the consumer is not a perfect match to the business enterprises. The gap between the consumers, and the suppliers and service providers in that regards is wide and such gap has been exploited by the businesses at the consumer expense (McKecnie & Akinbami, 2011; University et al., 1975). In fact, information asymmetry and the imperfection of the market have been identified as factors that necessitate the need for consumer protection (McKecnie & Akinbami, 2011). But evidence is scarce in the Nigerian context of how this asymmetry impacted on consumer exploitation.

Consumers lack knowledge of basic consumer laws and consumer rights. The problem of consumers not knowing their rights, or the existing consumer protection laws has been studied. From the literature reviewed the problem is not peculiar to developing countries but also the developed jurisdictions (Jones & Boyer, 1971; Best & Andreasen, 1977; Schmitz, 2013). Studies reveal that consumers even in developed jurisdictions such as the UK don't know their consumer rights, consumer responsibilities as well as the existing consumer protection laws (Schuh & Kitson, 2003; Best & Andreasen, 1977; Kitson et al., 2003; Schmitz, 2013). If this is the case of UK what happens in developing countries such as Nigeria? To the best of the knowledge of the researchers, studies are scarce on whether Nigerians know their rights, know the existing consumer protection laws. This study, therefore, contributes in that regards. It needs to be stressed however, that notwithstanding the findings of Kitson et al. (2003) and similar findings, that the impacts of consumer ignorance is not profound in the developed jurisdictions compared to the developing countries such as Nigeria. This is attributable to the level of education and awareness in both jurisdictions, and the culture of rights protection in the latter compared to the former. A deep understanding of the phenomenon of the study from the stakeholders in charge of handling these consumers' affairs would provide a large and valuable amount of information in the area of consumer education and awareness. With Nigeria being a developing country the findings of this study would add to existing body of knowledge on the level of consumer awareness, consumer education and how the lack of both is a challenge for consumer protection systems and consumer redress. The research findings would equally add to the body of knowledge in the African context because Nigeria being the most populous nation in the continent has more consumers than other African countries.

In summary, it is submitted that although extensive theoretical work exists on the issue of consumer protection and consumer redress, empirical evaluations are less common. Equally, literature is scarce on the level of consumer awareness in any deregulated sector in Nigeria which is one of the distinctive characteristics of this study. This study fills that gap empirically. Although as the collected data reveals the challenges varied, we limit our analysis to lack of awareness because consumer awareness is the first line of defense against consumer exploitation.

### 3. Research Methodology

Being qualitative, this study employed the purposive sampling technique for the identification and selection of the research participants. In so doing, persons involved in consumer protection and who have the requisite information on the challenges of consumer protection were selected. In fact, the ultimate impact of the research sample on the research findings necessitated the selection of public officers and other participants with the rich experience in the area of consumer protection. The twenty participants were, therefore, drawn from academics, heads of consumer organizations as well as staff from consumer education, surveillance and enforcement units of the relevant electricity consumer protection agencies. The agencies are the Consumer Protection Council (CPC), the Nigerian Electricity Regulatory Commission (NERC), the Standards Organization of Nigeria (SON) and the Legal Aid Council of Nigeria (LACON). Participants from CPC were chosen because CPC is the apex consumer protection body while participants from NERC were chosen because NERC is the electricity industry regulator and all Nigerians are consumers of electricity directly or indirectly. The other participants were equally purposefully selected from lawyers in the academics and heads of consumer organization who have been involved in consumer protection in the country. Overall, the participants were selected because they have the relevant experience and information, and are "potential sources of rich data" (Drew, 2014, p. 77) on the phenomenon of the research. The relevant information and experience of the participants assisted in the realization of the research objectives.

This study aims at a deeper understanding of the experience of the stakeholders in consumer protection. It is, therefore, phenomenological (Patton, 2002). According Patton (2002), a phenomenological study is one that "aims at gaining deeper understanding of the nature or meaning of our everyday experiences." Patton argues that if researchers are to achieve deeper understandings they need to gather data and must "undertake in-depth interview with people who have directly or indirectly experienced the phenomenon of interest; that is they have

lived experience as opposed to secondhand experience,”(Patton, 2002). Based on Patton’s recommendation, in-depth semi-structured interviews were conducted face-to-face by the corresponding author with the twenty participants using an open-ended question format within the interpretivist paradigm. According to Mason (2002) the interpretivist approach “... sees people as a primary data source” and also “seeks their perceptions ... the ‘insider view’, rather than imposing an ‘outsider view.” The interpretivist approach enabled the researchers to understand the experiences of the enforcement agencies, experts and heads of consumer organizations and how best to solve the challenges of consumer protection. The flexibility of the semi-structured interview enabled the corresponding author to observe and capture the real challenges faced by the consumer protection agencies in the area of consumer protection.

The in-depth, semi-structured interviews were conducted within 2 months (July-August 2014). Sixteen of the interviews were conducted at the participants’ offices while the remaining four were at the residence of the participants. The duration of the interviews lasted between thirty minutes to one hour period. Some of the interview questions include “how do you rate the electricity consumers’ knowledge and awareness of their rights?” “In your opinion what are the challenges for consumer protection in the Nigerian electricity industry?” The Interviews were audiotaped and transcribed by the corresponding author who conducted the interviews. For evidential purposes, validation and in to support the research findings (Sandelowski, 1994; Hatch, 2002), data excerpts from the transcribed responses on the main and sub-themes of the research are included.

Interview text editing could either be “standardized or preservationist,” (Sandelowski, 1994). The “standardized” as opposed to the “preservationist” approach to text editing, was adopted in the analysis of the transcribed data. Distracting elements, and colloquial and spoken words such as “aaam,” “waooh,” “hmm” “ehnn” “well” “you know” “you understand” “eehh” were excluded in the relevant excerpts from the interviews.

Benner’s Interpretive Phenomenological (BIP) tradition is adopted in this research (Benner 1994). The adoption of BIP is justified because of its’ emphasizes on exploring the everyday human practical experience and knowledge. BIP assists the researchers to explore the participants everyday practical experience and knowledge on the challenges of consumer protection (Gill, 2014). In conducting the analysis, the thematic approach of themes identification with sufficient excerpts support as advocated by Benner (1985b) was adopted. The adoption of the thematic analytical approach was justified because according to Gill (2014), it “necessitates creativity and imagination.” The lack of awareness theme was used as the main theme with several other emerging sub-themes.

For credibility purposes, the in-depth interviews and other raw data were accurately transcribed and documented by the corresponding author. The authors scrutinized the main theme and the emerging sub-themes from the transcribed data before the production of the research findings. For a more rigorous analysis and in order to make the research findings more plausible, the collected data was triangulated using data sourced from scholarly works, institutional and government documents (Patton, 2002; Merriam, 2014). To guarantee transparency and dependability of the data collection, this study conducted an audit trail. This is to ensure that other researchers would make similar observations of the data (Patton, 2002).

#### **4. Results**

The qualitative analysis resulted in several categories of challenges of consumer protection. These include lack of awareness, funding, staffing, cultural and religious barriers, poverty, corruption, etc. But the lack of awareness was more striking, and all the participants were unanimous that lack of awareness constitutes the major challenge for consumer protection. While all the participants were unanimous on the lack of awareness, no such unanimity was found on the sub-themes. The main theme and the sub-themes are examined below.

##### *4.1 Lack of Awareness*

Consumer awareness reduces the chances of consumer exploitations in the marketplace. Information on consumer rights and the existing consumer protection and complaints processing avenues is valuable in consumer protection strategies (McChesney, 1990; Aaker & Day, 1982). In fact, a better-informed consumer improves the functioning of markets (Blayac et al., 2014). But the lack of consumer awareness has been one of the major challenges for efficient consumer protection in developing countries (Ismail et al., 2012; Zakaria, 2015; Alsagoff, 2006; Anong & Kunovskaya, 2013). In this study, the participants reported lack of awareness as a major challenge for consumer protection in the Nigerian deregulated electricity sector. From the analysis of the participants’ responses on the main theme (lack of awareness), other sub-themes emerged from the Participant’s responses. These include lack of consumer education; consumer ignorance; lack of sensitization; lack of consumers’ knowledge of their rights and the existing consumer protection agencies; lack of consumer awareness of the existing redress avenues; the lack of consumers’ awareness of the existing consumer protection



laws; and the lack of legal awareness.

#### 4.1.1 Lack of Consumer Rights Knowledge and Awareness

Consumers' appreciation of their right helps immensely in their protection. Lack of rights awareness is a problem for the consumer protection systems. When the consumers are not aware they have a right, they cannot demand it. The consumer knowledge of his a right is the first step towards asserting it. However, the participants reported lack of consumer rights knowledge and awareness as a challenge for consumer protection. Thirteen participants rated the consumers' knowledge and their awareness of their rights very low. Participant 15 believes that "the whole issue of consumer rights protection in Nigeria has to do with awareness, the awareness is still very, very low."

On this sub-theme, thirteen participants reported that consumers in Nigeria are not aware of their rights. According to Participant 1;

"Most of the consumers are not aware of their rights and the limitations of the suppliers. So there is need for the consumer to know what he is consuming."

The response of Participant 6 is equally instructive. According to the Participant, "most of the consumers are not aware that they even have a right to pursue in relation to electricity supply."

The participants report that the issue of consumers not knowing their rights is not only among the illiterates but even amongst the educated. According to Participant 9;

"the consumers in Nigeria don't even know their rights even the schooled ones (sic), those who even go to the universities."

According to Participant 13:

"The problem usually, there is general lack of public awareness about even the role of the regulator, even what is going on, your rights people do not actually appreciate their rights and even those that appreciate their rights sometimes you look at the cost actually."

#### 4.1.2 Ignorance of the Consumer

Ignorance of the consumer has been a problem militating against effective consumer protection especially in developing countries. The Indian situation has been reported in scholarly papers (Kumar & Rao, 2015). Six participants (4, 6, 7, 9, 10, and 18) in this study reported consumer ignorance as a challenge to consumer protection in the electricity industry. Putting ignorance as the first barrier for consumer protection Participant 9 argues that "the first one concerning the electricity as I said earlier is ignorance."

With the high level of illiteracy in Nigeria, several participants reported ignorance of the consumer as one of the challenges militating against effective consumer protection. In fact, some of the participants feel that the government is to be blamed for the consumer ignorance and information gap. According Participant 7:

"People don't know their rights across all types of services. There is a lot of ignorance. I understand some people are not educated, but you can still teach them their rights in their own languages. This is huge. My opinion is the Consumer Protection Council, and the government itself should hold themselves responsible for the gap in information with regards to consumer protection. It's a major problem."

Part of the consumer ignorance that is a challenge to consumer protection is the fact that the consumers do not know how to read the meters and the bills presented by the electricity service providers. This is one of the problems reported by Participant 4. According to the Participant;

"The consumers do not know how to read the meters, how to read the bills. You do not know what is written on a bill, you do not know how they calculate."

#### 4.1.3 Lack Sensitization

The importance of sensitization has been stressed. As a sub-theme of lack of awareness, lack sensitization was reported by four participants (1, 3, 8, and 11) as a major challenge for consumer protection in the Nigerian electricity industry in particular and the country, in general. According to Participant 1:

"I have already said there is lack of sensitization. Most consumers are not aware of their own rights. Lack of sensitization involves a lot of things, a consumer thinks he has no rights. Most of the consumers are not aware of their own rights."

Participant 3 equally added his voice to the issue of lack of sensitization. According to the Participant;

"I don't see the consumers having a challenge. If there would be a challenge is the issue of sensitization."

Participant 11 also reported lack of sensitization. According to the Participant;

“Sensitization is very important. Because if the people are not aware of their rights and responsibilities as consumers, of course, problems would continue to arise day- in-day out. We have not been able to carry out an effective sensitization programme.”

#### 4.1.4 The Problem of Consumers Not Knowing the Consumer Protection Agencies and the Existing Redress Mechanism

Problem of consumers not knowing the existing consumer protection agency is global. Research for instance, has shown that there is a lack of awareness of the existence of consumer redress forum such as the small claims court in the US (URSIC, 1981). Evidence of the problem in the African continent abounds in Ghana one of the Nigeria’s neighbor (CI, 2013a). In Nigeria, consumers also lack knowledge of the existing consumer protection laws and structures in the country (Sani & Usman, 2014). This is one of the sub-themes of lack of awareness reported from the responses of nine participants (2, 4, 5, 6, 8, 10, 11, 12 and 13) interviews. The participants reported that the consumers don’t know the existing avenues for complaints and redress. This lack of awareness is found even among the educated elites. According to Participant 3, “a lot of consumers even the educated ones are still not aware that there is an agency that can come in to help them.” This is a big challenge on the consumer protection drive. In similar vein, Participant, 11 reported that;

“There is this problem; consumers are not aware of the existence of certain agencies of government like the Legal Aid Council, or like the Consumer Protection Council.”

Participant 2 equally captures the point. According to him;

“My difficulty is that I am not aware of a redress mechanism for electricity consumers at the moment, and that has to evolve fast. As the industry is being re-organized, unbundled”

In fact, Participant 6 queried that “if the public is ignorant of the existence of an agency, in what way can you approach such agency?”

Even where the consumers know the avenues, the problems of not knowing the functions of the organizations or agencies exist. According to Participant 10;

“Awareness of consumers on our functions is very, very low. All efforts in the past to make our work known to the public have failed. ... the awareness seems to be very low.”

Responding from the perspective of the electricity regulator, Participant 13 lamented the state of lack of awareness of the role the Nigerian Electricity Regulatory Commission can serve as the regulator of the electricity industry. According to the Participant;

“The problem, usually there is general lack of public awareness about even the role of the regulator, even what is going on, on your rights people do not actually appreciate their rights.”

#### 4.1.5 Lack of Knowledge of the Existing Consumer Protection Laws

The consumers don’t seem to know even the laws that protect them and the institutions meant to enforce those laws. Three of the participants (1, 2 and 6) reported the problem of the consumer not knowing the law or where to go and who to approach as a challenge for consumer protection. Participant 2 bared his mind when he said,

“My feeling is that consumers do not generally know the laws that protect them, so they are generally unaware of the existence of the law. You find some level of knowledge among elites, educated elites, even within them you may find, you will find that although they know the law existed, don’t know what it provides. Electricity is just been deregulated and I want to believe that people do not know the legal regime now.”

In the same footing, Participant 6 stated that;

“In fact, the regulations are not even known to the public. And ... . If the public are ignorant of the existence of any law that sought to protect them in what way would they rise and ask for their rights from the appropriate agency? This is the problem, and there are a lot of lapses in this direction.”

Adding his voice Participant, 1 stated that it is “very ironical most of the laws that are to be enacted are already in existence only that people are not aware of it or lack of implementation.”

## 5. Discussion

This study explored in-depth the perception and experience of stakeholders involved in consumer protection and standards setting in the deregulated electricity sector in Nigeria. The study seeks to assist the government and

business community in drawing up policies and measures towards improving consumers' welfare in the country. The study is equally beneficially to the consumers in gingering them to know their rights and to demand the same. From the twenty face-to-face semi-structured interviews with officers of the relevant consumer protection agencies, consumer experts, and academics, the study found that consumer protection in the Nigerian electricity sector is plagued with a lot of challenges. These challenges include funding, staffing, corruption and lack of consumer awareness, and they militate against the consumer in getting the protection he deserves.

Drawing from the perspectives of scholars such as Howell (2005), Boush et al. (2009) Agbonifoh and Edoreh (1986) and consumer protection agencies such as CFPB (2015) on the vital role consumer education and information play in protecting consumers, it is safe to say that consumers in the Nigerian electricity industry have a long way to go. From the evaluation of the participants' responses, electricity consumers in Nigeria are not informed and educated on their rights. Without knowing their rights and without information one would not expect serious consumer activism. The assumption here is that when consumers have information there is likelihood they would use it. There is equally the tendency that when the consumers are aware of existing consumer protection laws they would take advantage of it (Hogarth & English, 2002). Similarly, consumers' familiarity with the established consumer protection agencies raises the likelihood of consumers utilizing those agencies in solving their consumer grievances. Conversely, when consumers lack information, are unaware of consumer protection laws and the existing consumer protection agencies the possibility of utilizing these safeguards in solving their problems is zero. In fact, as Blayac et al. (2014) posited the lack of information would affect the proper functioning of the market and the consumer is the worst of it.

From the literature, lack of awareness is not only a Nigerian problem but a global one. It cut across the developed and developing world (CFPB, 2015; Agbonifoh & Edoreh, 1986). The Nigerian situation is, however, striking. This study found that lack of consumer awareness that covers consumer ignorance, lack of consumer sensitization, the consumer not knowing the relevant consumer laws and the consumer protection agencies is the major challenge for effective consumer protection in the deregulated electricity industry. Research has shown that Consumer rights awareness safeguards consumers from exploitation (CI, 2015). The unanimity of the all the participants in this study (drawn from the public and private sectors) corroborates the impacts of lack awareness on consumer protection in the industry and by extension the entire economy. The research findings speak volumes about the extent of consumer protection in the Nigerian electricity industry and the country at large. It is contended that with the bulk of consumers being uneducated; not knowing their rights and the consumer protection laws as well as the channels to ventilate their grievance, they are easy prey to exploitation by the unscrupulous businesses. Deduced from the evaluation of the perspectives, experience and reactions of the Participants, raising the consumer awareness, will, therefore, minimize, if not prevent a lot of the consumer exploitations in the electricity industry. By implication, the consumers need to be educated, and aware of their rights and all the consumer protection safeguards. This is a vital tool for consumer protection. As suggested by Makela and Peters (2004) and Gallagher (2002) consumer education and awareness would assist in developing responsible business behavior in the Nigerian electricity market.

## **6. Limitations and Suggestion for Future Research**

Although the study findings must be treated in line with its qualitative character as such not generalizable, nonetheless, the findings represent the state of consumer protection in the Nigerian electricity industry. It provides a picture of what obtains in other sectors as electricity consumers are consumers of other necessities of life. Additionally, the twenty respondents involved in this research were limited to academics, heads of consumer organizations, as well as staff from consumer education, surveillance and enforcement units of the relevant electricity consumer protection agencies. The sampled research participants did not involve the ordinary electricity consumers. This study is further limited because the paper focused on the issue of lack of awareness being the major identified challenge of consumer protection in the industry. It is, therefore, suggested that future studies can include the ordinary electricity consumers and can as well explore the other problems militating against the protection of electricity consumers and the general consumers in the country. It is further suggested that future studies may quantitatively investigate the lack of consumer awareness and the other challenges of consumer protection in the deregulated electricity sector and in other sectors of the economy.

## **7. Conclusions**

The in-depth semi-structured interviews with stakeholders in the field of consumer protection revealed the perspective and the experience of the participants on the several challenges electricity consumers face. The findings of the study show that electricity consumers face several challenges that hinder them from getting protected from the exploitations in the marketplace. Lack of awareness appears to be the major challenge. It can

be safely concluded that the electricity consumers being uneducated and lacking in consumer rights awareness, are vulnerable to exploitation. With utility deregulation deeply rooted in Nigerian utility sectors, increasing consumer awareness as recommended by Dickinson and Shaver (1982) should be the first priority and the primary goal of the government, the electricity firms and consumer advocates. When a consumer is not aware of his rights how can he assert such rights? In fact, he easily leaves what is due to him and the business enterprise bank on the lack of awareness to profit from the same. Consumer awareness will influence the status quo and make consumer assertive. This study, therefore, calls for consumer awareness and education in Nigeria. The consumers need to be educated, enlightened and sensitized. This is the responsibility of the government, the business enterprises as well as the consumer organizations. Involving the businesses is necessary unless the market is conspiring to keep the consumers ignorant. More so, the consumers should be informed about their rights, about the redress mechanisms and even the extant consumer protection laws. They need consumer education and enlightenment on how, where and who to approach with their complaints about any right violation. The inclusion of consumer education in the Nigeria education curriculum and the initiation of awareness programmes in the electronic and print media would help immensely. This if done, would raise the level of the electricity consumer protection in the country (Zakaria, 2015). The over 170 million Nigerians need protection as consumers as such they need to be educated and enlightened. The findings of this study would assist policymakers, the electricity service providers and consumer groups in Nigeria in planning and strategizing for better and efficient consumer protection. Additionally, the research findings would be beneficial to other African countries and other developing nations in appreciating the multiplier effects the lack of consumer awareness poses to consumer protection.

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# A Comparison Study of Obesity among Able-Bodied Children and Adolescents Compared to Their Peers with Sensory Disabilities in Jordan

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Received: June 7, 2015 Accepted: July 7, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p252

URL: <http://dx.doi.org/10.5539/ass.v11n24p252>

## Abstract

**Introduction:** This study assessed the prevalence of obesity among able-bodied children and adolescents compared to their peers with sensory disabilities. It also assessed whether there were differences between males and females in obesity.

**Methods:** 724 able-bodied male students ( $12.0 \pm 2.5$  years;  $147 \pm 15$  cm;  $42.5 \pm 15.0$  kg), 241 able-bodied female students ( $10.8 \pm 2.3$  years;  $141 \pm 15$  cm;  $36.3 \pm 12.9$  kg), 113 visually-impaired male students ( $11.6 \pm 3.6$  years;  $142 \pm 19$  cm;  $38.7 \pm 16.1$  kg), 101 visually-impaired female students ( $12.9 \pm 3.7$  years;  $145 \pm 16$  cm;  $43.2 \pm 15.1$  kg), 192 hearing-impaired male students ( $13.2 \pm 2.6$  years;  $152 \pm 15$  cm;  $45.0 \pm 15.0$  kg) and 151 hearing-impaired female students ( $12.9 \pm 2.8$  years;  $150 \pm 13$  cm;  $46.3 \pm 13.8$  kg) volunteered for the study. BMI was calculated for each student.

**Results:** BMI values were significantly higher for hearing-impaired ( $19.6 \pm 3.8 \text{ kg.m}^2$ ) students compared to their able-bodied peers ( $18.9 \pm 3.9 \text{ kg.m}^2$ ). 5%, 2.9% and 6.5% of able-bodied, hearing-impaired and visually-impaired were obese, respectively. 13%, 13.7% and 12.2% of able-bodied, hearing-impaired and visually-impaired were thinness, respectively.

**Conclusion:** The prevalence of obesity among able-bodied children and adolescents is low compared to the literature and previous studies. That may be due to the fact that these children studying at public schools. Studying at public school may give indicator that the families of these children having low and moderate income which leads to less obesity and more thinness among these children. Low incidence of obesity and higher incidence of thinness for hearing-impaired and visually-impaired children may be attributed to the fact that most of these children and adolescents studying at residential schools which means that their dietary and food intake is monitored by their schools.

**Keywords:** able-bodied, hearing-impaired, visually-impaired, obesity, thinness

## 1. Introduction

It has been reported that children with hearing impairment, visual impairment, physical disability and chronic medical are less active and have low fitness level (Suzuki et al., 1991; Longmuir & Bar-Or, 1994; Longmuir & Bar-Or, 2000). The results of the study by Longmuir & Bar-Or (2000) showed that youth with hearing impairment are the most active group compared to youths with other disabilities. Visually-impaired youths had lower levels of physical activity and consider themselves less fit compared to their peers (Longmuir & Bar-Or, 2000). Visually-impaired youths also reported more limitations for physical activity participation compared to their able-bodied peers and those with other disabilities (Longmuir & Bar-Or, 2000).

It has been indicated that children with hearing impairment have higher percent of body fat than their hearing peers (Winnick & Short, 1986; Shephard et al., 1987; Goodman & Hopper, 1992). It has also been indicated that the fitness level of hearing impaired youths were lower compared to their hearing counterparts in some components of fitness such as strength (sit-up), grip strength and balance (Campbell 1983; Winnick & Short, 1986; Goodman & Hopper, 1992). With regard to visually-impaired students, Sundberg, (1982) observed



significantly higher maximal oxygen uptake values ( $46.3 \text{ ml.kg.min}^{-1}$ ) for sighted girls compared to their blind peers ( $36.8 \text{ ml.kg.min}^{-1}$ ). Sundberg, (1982) suggested that these differences might be a result of lower physical activity level of blind girls compared to their sighted peers.

Obesity is a health concern worldwide. Obesity is defined as excess of body fat above 25% and above 32% of body weight for men and women, respectively (Wallace & Ray, 2009). Obesity can be a result of more energy intake compared to energy expenditure, less physical activity and genetics (Wilmore & Costill, 2004; ACSM, 2010). Bar-Or & Rowland, (2004) have indicated that children of obese parents have higher chance for being obese. It is known that obesity is correlated to type 2 diabetes, hypertension, hyperlipidemia, coronary artery disease (Wilmore & Costill, 2004; Wallace & Ray, 2009; ACSM, 2010), stress and depression, lower back and joint pain (ACSM, 2010) and may also affect the quality of life. Children's obesity has increased worldwide in developed and developing countries (Bar-Or & Rowland, 2004; Al-Hazzaa, 2002). A high BMI in children has been demonstrated to lead to a high BMI (obese) in adulthood (Reilly et al., 2003), developing an early atherosclerosis (Berenson et al., 1998) and is also linked with total mortality (Must et al., 1992). Children's body mass index is changed largely with age. Therefore, Cole et al. (2000) and Cole et al. (2007) have established cut offs point for obesity, overweight, normal and underweight for males and females between 2 and 18 years old.

In the Middle East and Arab countries, obesity and overweight among children have increased (Al-Hazzaa, 2002). Al-Nuaim et al. (2012) observed that 21.2% were obese and 17.2% were overweight in the urban area and 20.7% were obese and 26.6% were overweight in rural desert of Al-Ahsa region of Saudi Arabia. In a recent study by Tayyem et al. (2014) which compared obesity among secondary-school students studying at public schools compared to their peers studying at private schools in Jordan. The authors reported that the prevalence of obesity was higher in private schools (26.0%) compared to public schools (16.7%). Al-Nakeep et al. (2012) reported that the prevalence of obesity was much higher in Al-Ahsa region in Saudi Arabia (18.3%) compared to Coventry city (4.8%) and Birmingham city in the United Kingdom (6.8%).

To our knowledge, there are no studies which have compared obesity among able-bodied children and adolescents compared to those with visually-impairment and hearing-impairment in Jordan. In addition, in a recent study by Al-Rahamneh et al. (2013) the authors observed that students with hearing-impairment have low physical fitness level in push-up, sit-up, 1 mile run and agility compared to their hearing peers in Jordan. Sundberg, (1982) observed significantly higher  $\dot{V}O_2\text{max}$  values for sighted girls compared to their blind counterparts. Therefore, the aim of the current study was to assess the prevalence of obesity among able-bodied children and adolescents compared to their visually-impaired and hearing-impaired peers in Jordan. We hypothesized that children and adolescents with hearing-impairment and visually impairment would have higher incidence of overweight and obesity compared to their able-bodied peers.

## 2. Methods

### 2.1 Participants

Sensory disabilities include visually-impairment and hearing-impairment. Visual impairment is a loss of vision resulting in a major limitation of visual capability (Leverenz, 2009). Visual impairment includes total blindness and partial sight (Craft & Lieberman, 2000). Partially sighted individuals can read through large print or magnification whereas blind persons cannot read large print even with magnification (Craft & Lieberman, 2000). Hearing impairment includes deafness and hard of hearing. Deafness means a severe to profound hearing loss which does not allow the individual to use the remaining of hearing system for communication and processing information even with using augmentation devices, whereas individuals with hard of hearing may use the remaining of hearing system for communication and processing information (Ellis & Karasinski, 2009; Lieberman, 2011).

Seven hundred and twenty four able-bodied male students ( $12.0 \pm 2.5$  years;  $147 \pm 15$  cm;  $42.5 \pm 15.0$  kg), 241 able-bodied female students ( $10.8 \pm 2.3$  years;  $141 \pm 15$  cm;  $36.3 \pm 12.9$  kg), 113 visually-impaired male students ( $11.6 \pm 3.6$  years;  $142 \pm 19$  cm;  $38.7 \pm 16.1$  kg), 101 visually-impaired female students ( $12.9 \pm 3.7$  years;  $145 \pm 16$  cm;  $43.2 \pm 15.1$  kg), 192 hearing-impaired male students ( $13.2 \pm 2.6$  years;  $152 \pm 15$  cm;  $45.0 \pm 15.0$  kg) and 151 hearing-impaired female students ( $12.9 \pm 2.8$  years;  $150 \pm 13$  cm;  $46.3 \pm 13.8$  kg) volunteered for the study. Body mass index was calculated for each student and compared to thinness, normal, overweight and obese scales for each year as introduced by Cole et al., 2000 and Cole et al., 2007. Inclusion criteria for able-bodied were age range between 6 – 18 years old, healthy and free of illness when the study were conducting and studying at public schools in order to have a reasonable comparison with those having sensory impairment. Inclusion criteria for hearing-impaired and visually-impaired were age range between 6 – 18 years old, healthy and free of illness apart of their disabilities and not to have other disabilities. For all children and adolescents

parents signed informed consent was obtained. This study was conducted with institutional ethical approval from the Faculty of Physical Education at the University of Jordan.

## 2.2 Procedures

Body mass was measured for each student to the nearest 0.1 kg and height was also measured for each student to the nearest 0.1 cm while standing barefoot, wearing shorts (Seca weight-height Scale, Hamburg, Germany). BMI is weight in kilograms divided by height in meters squared, ( $BMI = \text{weight (kg)} / \text{height (m}^2\text{)}$ ) and was calculated for each child and adolescent.

## 2.3 Data Analysis

The data were checked for normality using the Shapiro-Wilk test (Field, 2009). Mauchly's test was used to confirm the assumptions of sphericity for two way ANOVA (Field, 2009). Where this was not confirmed, the Greenhouse-Geisser correction factor was applied to correct the degrees of freedom (Field, 2009). All data were analyzed using the Statistical Package for Social Sciences (SPSS) for Windows, PC software, version 21. Alpha was set at  $P < 0.05$ .

BMI was calculated for each child and adolescent. Students were compared against the BMI cut-offs point for obesity, overweight, normal and underweight for children and adolescents between 6-18 years old as proposed by Cole et al., 2000 and Cole et al., 2007. Students were then classified as obese ( $\geq 30 \text{ kg/m}^2$ ), overweight ( $> 25 \text{ kg/m}^2$ ), normal ( $18.5$  and  $< 25 \text{ kg/m}^2$ ), thinness grade 1 ( $17$  to  $< 18.5 \text{ kg/m}^2$ ), thinness grade 2 ( $16$  to  $< 17 \text{ kg/m}^2$ ) and thinness grade 3 ( $< 16 \text{ kg/m}^2$ ) based on these cut offs point. Two way ANOVA (Gender; male and female and Health status; able-bodied, hearing-impaired and visually-impaired) was used to assess whether were differences in BMI data between male and female and between able-bodied, hearing-impaired and visually-impaired.

## 3. Results

The number of students and the percentages of students whom are obese, overweight, normal, thinness grade 1, thinness grade 2 and thinness grade 3 based on BMI data are presented in Table 1.

The mean and standard deviation of body mass index data for able-bodied males and females, hearing-impaired males and females and visually-impaired males and females are presented in Table 2.

Table 1. Shows the BMI classification of children and adolescents. Data are n and percentage of n (%) in each classification

Classification/ Health status and gender	Obese N (%)	Overweigh N (%)	Normal N (%)	Thinness grade 1 N (%)	Thinness graded 2 N (%)	Thinness grade 3 N (%)
Able-bodied male (724)	41 (5.7)	127 (17.5)	476 (65.7)	60 (8.3)	13 (1.8)	7 (1.0)
Able-bodied female (241)	7 (2.9)	38 (15.8)	150 (62.2)	34 (14.1)	9 (3.7)	3 (1.2)
Able-bodied (965)	48 (5.0)	165 (17.1)	626 (64.9)	94 (9.7)	22 (2.3)	10 (1.0)
Hearing-impaired male (192)	4 (2.1)	28 (14.6)	124 (64.6)	28 (14.6)	6 (3.1)	2 (1.0)
Hearing-impaired female (151)	6 (4.0)	24 (15.9)	110 (72.8)	8 (5.3)	3 (2)	0 (0.0)
Hearing-impaired (343)	10 (2.9)	52 (15.2)	234 (68.2)	36 (10.5)	9 (2.6)	2 (0.6)
Visually-impaired male (113)	8 (7.1)	10 (8.8)	77 (68.1)	15 (13.3)	2 (1.8)	1 (0.9)
Visually-impaired female (101)	6 (5.9)	18 (17.8)	69 (68.3)	7 (6.9)	1 (1.0)	0 (0.0)
Visually-impaired (214)	14 (6.5)	28 (13.1)	146 (68.2)	22 (10.3)	3 (1.4)	1 (0.5)

Table 2. Shows the mean and standard deviation of BMI of children and adolescents in each group. Data are mean and standard deviation (mean  $\pm$  SD)

Health status and gender	BMI (mean $\pm$ SD)
Able-bodied male (724)	19.2 $\pm$ 3.9
Able-bodied female (241)•	17.9 $\pm$ 3.6
Able-bodied (965)	18.9 $\pm$ 3.9
Hearing-impaired male (192)	19.0 $\pm$ 3.6
Hearing-impaired female (151)	20.2 $\pm$ 4.0
Hearing-impaired (343)*	19.6 $\pm$ 3.8
Visually-impaired male (113)	18.5 $\pm$ 4.2
Visually-impaired female (101)	19.9 $\pm$ 4.5
Visually-impaired (214)	19.1 $\pm$ 4.4

\*Significantly higher than able-bodied and visually-impaired students

- Significantly lower than visually-impaired and hearing-impaired female students

There was a significant interaction between health status and gender on BMI data ( $F_{(2,1516)} = 17.891, P < 0.05$ ). Post hoc analysis using Tukey HSD for groups of different sizes showed that able-bodied female students have significantly lower BMI values compared to visually-impaired female students ( $P < 0.05$ ) and hearing-impaired female students ( $P < 0.05$ ). Post hoc analysis using Tukey HSD for groups of different sizes showed no significant differences between male students of the three groups ( $P > 0.05$ ). Two way ANOVA showed that there was a main effect for health status ( $F_{(2,1516)} = 9.611, P < 0.05$ ). Post hoc analysis using Tukey HSD showed that BMI values were significantly higher for hearing-impaired students compared to able-bodied students (0.014). There was no significant difference between male and female in BMI data ( $F_{(1,1516)} = 3.184, P > 0.05$ ).

#### 4. Physical Education Data

Schoolchildren at 7<sup>th</sup> grade and below studying at public and private schools have two physical education classes and those above the 7<sup>th</sup> grade have one physical education class per week. This physical education class is 45 minutes long. These 45 minutes are divided, with 10 minutes of preparation and warming-up, 25-30 minutes for the main session and 5-10 minutes for cool-down and returning to the class. This is far below the recommend level of physical activity per week.

#### 5. Discussion

The aim of the current study was to assess the prevalence of overweight and obesity among healthy able-bodied children and adolescents compared to their peers with visually-impairment and hearing impairment. The main advantage of the current study is that the sample used in this study is unique in its size and the disability types that were representative of a large Jordanian area. The prevalence of obesity among the three groups in the current study is low ( $\leq 6.5\%$ ) compared to the previous studies. However, the prevalence of thinness among the three groups is high ( $\geq 12.2\%$ ).

The percentages of obesity observed in the current study ranged between 2.9% for hearing-impaired children and adolescents, 5% for able-bodied and 6.5% for those with visually-impairment. These percentages of obesity are much lower compared to the previous studies in developing countries. For example, Al-Hazzaa, (2002) reported that 16% of school children in Saudi Arabia were obese. Al-Nakeep et al. (2012) also reported that 18.3% of youths were obese in Al-Ahsa region in Saudi Arabia. Furthermore, Tayyem et al. (2014) reported that 26.0% of private school children were obese and 16.7% of public school children were obese. However, the percentages of obesity in the current study among the three groups are similar to those reported by Al-Nakeep et al. (2012) in Coventry and Birmingham cities in the United Kingdom.

Lobstein & Leach, (2007) indicated that wealth is one of the environmental factors that increase body mass index. Wealth increases the purchasing power of food and also helps in adopting a more sedentary life style due to greater use of technology. School children of public schools in Jordan in the current study and in the previous study by Tayyem et al. (2014) have to walk to the schools whereas private school children and adolescents usually utilize buses that are offered by the private schools. This would give a reasonable justification of lower percentages of obesity among of public school children compared to those studying at private schools.

On the other hand, the prevalence of thinness in the current study is ranged between 12.2% -13.7% for the three groups. This confirms the idea that the families of school children studying at public schools have lower monthly income compared to those studying at private school. This is due to the higher tuition fees required for private schools compared to public schools which are almost free of charge in Jordan. We have a conversation with one of the social researcher in one of the schools for visually-impaired children where we collected some of our data and "she mentioned that most (about 88%) of families of visually-impaired children have low monthly income". This would in turn lead to less purchasing power for food and using technologies. Another possible interpretation of low incidence of obesity and higher incidence of thinness among hearing-impaired and visually-impaired children may be attributed to the fact that most of these students studying at residential schools which means that their dietary and food intake is monitored by their schools.

Visually-impairment children had higher obesity (6.5%) compared to their able-bodied peers (5%) and those with hearing impairment (2.9%). These findings are not surprising as visually impaired children, adolescents and adults had more barriers for exercising and physical activity compared to able-bodied persons (Longmuir & Bar-Or, 2000). Hearing-impaired children and adolescents had significantly higher BMI ( $0.7 \text{ kg/m}^2$ ) compared to their able-bodied peers. Hearing-impaired children and adolescents had less apparent challenges for exercising

and physical activity compared to able-bodied and children with other disabilities (Ellis & Karasinski, 2009), but this may be attributed to the quality of physical education classes delivered to hearing-impaired children. With regard to gender and disabilities, female with hearing impairment and females with visually-impairment had significantly higher BMI ( $1.2 \text{ kg/m}^2$ ) and ( $1.4 \text{ kg/m}^2$ ) compared to their male peers, respectively. This is not surprising especially when considering that females have more restrictions to do exercising and physical activities than males in the Arab cultural. In a recent study by Al-Nakeep et al. (2012), the authors reported that 81.4% out of 531 females were inactive in Al-Ahsa region in Saudi Arabia compared to 34.5% out of 576 males were inactive in Al-Ahsa region in Saudi Arabia. In contrast, 6.5% of males were inactive and 11% of females were inactive in Coventry city in the UK. There may be even more restrictions for disabled females compared to their able-bodied females for exercising and doing physical activities. This was reflected in significantly higher BMI values for visually-impaired and hearing-impaired females compared to their able-bodied peers.

## 6. Conclusion

This study assessed the prevalence of obesity among able-bodied children and adolescents compared to those with visual impairment and hearing impairment. The results showed that obesity ranged between 2.9% for hearing-impaired, 5% for able-bodied and 6.5% for those with visually-impairment. These percentages of obesity are low compared to the previous studies in developed and developing countries. The prevalence of thinness in the current study is high ranged between 12.2% -13.7% for the three groups. These findings of lower percentages of obesity and higher percentages of thinness might be attributed to the fact that able-bodied children studying at public school which lead them to walk to schools instead of using school buses. Students with sensory disabilities have low percentages of obesity and higher percentages of thinness as a result of low family monthly income. One more point regarding low incidence of obesity and higher incidence of thinness among hearing-impaired and visually-impaired children may be attributed to the fact that most of these students studying at residential schools which means that their dietary and food intake is monitored by their schools. We recommend that students with sensory disabilities should be monitored even more for the quality of their daily food intake in order to prevent being obese or being underweight.

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# The Critical Role of Micro, Small & Medium Enterprises in Employment Generation: An Indian Experience

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Received: June 8, 2015 Accepted: July 14, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p258

URL: <http://dx.doi.org/10.5539/ass.v11n24p258>

## Abstract

The purpose of this study is to examine the role of Micro, Small and Medium Enterprises (MSMEs) in Indian economy towards employment generation. It is found that this sector provides employment to nearly 60 million people through 26 million enterprises. In terms of employment generation, place of MSMEs is next to agriculture. Second All India census of Small Scale Industries (Financial Year 1987-88) had recorded 121.74 per cent growth in employment in this sector. Though the Third All India census of Small Scale Industries (Financial Year 2001-02) showed a decline in the growth of employment, this sector has achieved better growth in the fourth census (Financial Year 2006-07) as a reflection of the structural reforms implemented in the Indian economy. This study also reveals that the unregistered enterprises generate more than 80 per cent of the employments. By computing the Compound Annual Growth Rate (CAGR) in the MSMEs sector of India, it has been seen that CAGR for the growth of employment in the post reform period is higher than the pre reform period. Even after the integration of Indian economy with global economy in 1991, MSMEs sector of India has performed well in employment generation.

**Keywords:** all India censuses of small scale industries, employment generation, micro small and medium enterprises

## 1. Introduction

Economic development of a nation is closely associated with the growth of its industrial sector. Industrial sector is composed of Large, Medium, Small and Micro enterprises. While large industries help the overall economic development of a nation, the contribution of Micro, Small and Medium Enterprises (MSMEs) is quite significant in employment generation, industrial production and exports. Small scale industries have the advantage of labour intensiveness, low cost technology, low investment and short gestation period (Singh, Rana, & Singhal, 2009). The MSMEs sector is also known as Small and Medium Enterprises (SMEs) Sector (Nagayya & Rao, 2011). Small and Medium enterprises play a key role in job creation, providing two thirds of all formal jobs in developing countries and up to 80 per cent in low income countries (Kok, Deijl, & Van Essen, 2013). In developed nations also SMEs has to play a critical role in employment generation and overall growth of GDP. Small and Medium Enterprises have emerged as an engine of growth in the new Millennium (Prasad, 2004). In many countries as the economies develop, the share of agriculture to GDP began to decrease and it results in surplus labour force. In 1950-51, contribution of agriculture to India's GDP was 51.9 per cent. This declined to 13.7 per cent in 2012-13 (Ministry of Agriculture, Government of India, 2013). In the year 1951, more than 70 per cent of Indian population depended on agriculture for their livelihood and now it is nearly 50 per cent. It is quite relevant that SMEs in most of the nations including India provide employment to this surplus labour force from the agriculture sector. In Brazil 59 per cent of the employed population are in SMEs. In Japan 70 per cent of the wage earners work in SMEs (Small Industries Development Bank of India [SIDBI] Report on MSMEs Sector, 2010). In developed countries such as Germany, Italy, Greece, France and USA share of SMEs to total employment is 99 per cent (Bala, 2007).

In India, MSMEs sector contributes nearly eight per cent of its GDP, 45 per cent of industrial output and 40 per cent of exports. The most significant factor in this respect is that the MSMEs sector provides employment to nearly 60 million persons through 26 million enterprises (Fourth All India Census of MSMEs, 2006). In terms of employment, it comes next to agriculture. Since independence, Government of India has been providing special priorities to this sector through various policies and programmes. Because of these, the number of enterprises and employments has increased by many folds. In 1950-51, number of enterprises was only 16 Thousands and employment was 700 Thousands. In the year, 2006 total number of MSMEs reached above 26.136 Millions and employment generated rose to nearly 60 Millions. Prior to the year 1991 growth of this sector was augmented through several protectionist policies. From 1991 onwards with the implementation of Globalization and Liberalization in Indian economy, the policies of promotion replaced these protectionist policies. These policies aim to enhance competitiveness of MSMEs sector in meeting the new challenges posed by liberalization and globalization.

There is no globally accepted definition for MSMEs. Different nations use different criteria for defining this sector. Investment ceiling and employment are the basis for most of these definitions. According to World Bank Research paper, 54 countries define SMEs as enterprises employing not more than 200-300 people (SIDBI Report on MSMEs Sector, 2010). In India, investment in plant and machinery is the basis used for defining this sector. As per the Micro, Small and Medium Enterprises Development (MSMED) Act of 2006, Micro Enterprise is one in which investment in plant and machinery does not exceed rupees 2.5 Millions. This limit is above 2.5 Millions and up to 50 Million rupees in Small Enterprises. Medium Enterprises have an investment above rupees 50 Millions but should not exceed 100 Millions. In the case of Service sector enterprises, investment in equipment up to rupees one Million is Micro and above one Million but not exceeding rupees 20 Millions are Small Enterprises. Medium Enterprises in the service sector have their investment above 20 Million rupees but do not exceed rupees 50 Millions.

## 2. Review of Literature

MSMEs sector is the second largest source of employment in India next to agriculture sector. This sector uses local resources and talents to create more jobs with less investment. Several researchers have analyzed the pivotal role of MSMEs in employment generation and overall development of economies.

The Study of Liedholm and Mead (1987) observe that third world governments recognize the contribution of MSMEs in the creation of jobs and poverty alleviation. According to Bharti (1978), small-scale industries create large-scale employment. United Nations Industrial Development Organization (UNIDO, 1968) emphasizes in its report that growth of SSIs will increase the production and employment in developed and developing economies. Unemployment is a serious problem in developing countries. Development of Small-scale industries can deal with the challenges of unemployment (Giri, 2004). Ayanda and Laraba (2011) studied the performance of SMEs in Nigerian economy. They observe that after the attainment of independence the government of Nigeria gives much importance to SMEs and thus the incidence of poverty and unemployment in Nigeria have reduced to an extent. Another researcher Kumar (2010) views Small Scale Industries as an engine of equitable economic growth and poverty alleviation. According to Tambunan (2009) SMEs in Asian developing countries such as India, China, Pakistan, Indonesia, Malaysia, Thailand, Vietnam and Bangladesh can solve the problems of unemployment and poverty. Arora and Gupta (2008) viewed that in post independent India small Scale industries created more employment in the economy and this sector is an engine for employment generation. Government of India recognized the prime role of MSMEs in employment generation and socio economic development of the country. So Central and State governments introduce and implement several programmes for its growth. Because of this concerted efforts, today MSMEs sector contributes more than 80 per cent of the total industrial units, 40 per cent of the industrial production, 35 per cent of the exports and nearly 80 per cent of the industrial employment in India (Narasaiah & Murthy, 2009). According to Singh (2009), Small-scale industries act as catalysts in the socio- economic development of India. They facilitate in tapping the resources for judicious use of investment, in reducing regional disparities, generating employment opportunities, and increasing exports by fostering entrepreneurship.

## 3. Objectives of the Study

- To study the growth of employment in the SSIs/MSMEs Sector of India
- To make a comparison of the growth of employment in the SSIs/ MSMEs sector in Indian States and Union territories
- To compare employment generated in SSIs/ MSMEs Sector in the Pre-Reform and Post Reform periods

#### 4. Methodology

This study is an analytical and descriptive one and mainly depends on secondary data published by the Ministry of MSMEs Government of India, Results of the Economic survey, Results of various All India Censuses of SSIs/MSMEs, SIDBI Report on MSMEs Sector 2010, Annual Reports on SSIs/MSMEs sector etc. The statistical tool Percentage is used to analyze the data collected from these sources and thus assessed the growth trend of employment in the MSMEs Sector.

#### 5. Growth of Employment in the SSIs/MSMEs Sector of India

Indian SSIs/MSMEs Sector is composed of both registered and unregistered enterprises. The enterprises registered in the District Industries Centres (DIC) of the respective States/Union Territories of India form the Registered Enterprises and others without a registration with the DICs are the Unregistered Enterprises. Planned development of Indian SSI sector begins with the declaration of the first Industrial Policy resolution of 1948. During the last six decades, this sector has grown as a major component of India's industrial sector in terms of production, export and employment generation. Since 1991 Micro and Small Industries sector in India has been undergone several reforms like replacing the 'Policy of protection by Policy of promotion' and it is in a transitional stage, i.e. from protection to promotion. This sector is now facing severe competition from Multi National Corporations (MNCs) as well as large Indian firms.

##### 5.1 Growth of Employment in the Registered SSIs/ MSMEs Sector

Government of India conducts All India Censuses of Small Scale Industries for assessing the growth of this sector and they help in framing future promotional policy packages that could activate growth of MSMEs. So far, four such censuses have conducted. The results of these four censuses are in Table 1.

Table 1. Growth of Employment in the Registered SSIs/MSMEs in India

Name of Census	Number of Enterprises (in Thousands)	Growth rate (%)	Employment (in Thousands)	Growth rate (%)	Employment Generated per Enterprises
First census (1972-73)	139.577	---	1 653.178	---	11.84
Second census (1987-88)	582.368	317.23	3 665.810	121.74	6.29
Third census (2001-02)	1 374.974	136.10	6 163.479	68.13	4.48
Forth census (2006-07)	1 563.974	13.74	9 309.486	51.04	5.95

(Source: Compiled by the researcher using the data from the four Results of All India Census of SSIs/MSMEs published by Government of India.)

According to the first census (1972-73) there were 139.577 Thousands SSI units in the country which provided employment to 1 653.178 Thousands persons. Results of the second census (1987-88) showed that the number of SSI units increased to 582.368 Thousands, with a phenomenal rise in employment generated to 3 665.810 Thousands. Thus, there occurred a growth of 317.23 per cent in the number of units and 121.74 per cent in employment. The total number of registered units in the third census (2001-02) is 1 374.974 Thousands and employment generated grew to 6 163.479 Thousands. The latest census of MSMEs (Fourth All India Census) started after the enactment of MSMED Act of 2006 and completed by 2006-07. This Act redefined the sector as Micro, Small, and Medium Enterprises Sector by including service sector and medium scale units. The total number of registered enterprises as per this census is 1 563.974 Thousands with an employment of 9 309.486 Thousands.

As per the first and second census results, average employment generated by an SSI unit is 11.84 and 6.29 respectively. The third census showed that the growth of registered units decreased from 317.23 per cent of second census to 136.10 per cent. During this period, the growth of employment also decreased to 68.13 per cent from 121.74 of the previous census. Employment generated per enterprises also decreased from 6.29 of second census to 4.48 in the third census. However, in the fourth census, the number of registered enterprises increased by 13.74 per cent. Employment generated has shown a growth of 51.04 per cent. The employment generated by an enterprise increased to 5.95 as against 4.48 of the third census. The above analysis makes it clear that despite the increased competitions from the large Indian industries the MSMEs sector of India achieved substantial progress in the field of employment generation.



### 5.2 Growth of Employment in the Unregistered SSIs/MSMEs Sector

The First and Second All India Census of SSIs covered only industrial units registered with the District Industries Centres. From the third census onwards, the unregistered units too included in the data collection processes. Table 2 depicts the growth of employment in the unregistered sector.

Table 2. Growth of Employment in the Unregistered SSIs/MSMEs in India

Name of Census	Number of Enterprises (in Thousands)		Growth rate (%)	Employment (in Thousands)		Growth rate (%)	Employment per Enterprises
	Total	Unregd.		Total	Unregd.		
3 <sup>rd</sup> census (2001-02)	10 521.190	9 146.216 (86.93%)	---	24 932.763	18 769.284 (75.28%)	---	2.05
4 <sup>th</sup> census (2006-07)	26 136.424	24 572.450 (94.02%)	168.66	59 566.525	50 257.039 (84.37%)	167.76	2.04

(Source: Compiled by the researcher using the data from the Third and Fourth All India Census Of SSIs/MSMEs)

According to Third census the total number of SSI enterprise is 10 521.190 Thousands and employment generated is 24 932.763 Thousands. Among these, 9 146.216 Thousands are in the unregistered sector. They provided employment to 18 769.284 Thousands persons. This means that 86.93 percent enterprises are unregistered ones and employments generated by them are 75.28 per cent. During the Fourth census, the total number of MSMEs increased to 26 136.424 Thousands, of which 94.02 per cent (2 4572.450 Thousands) are unregistered enterprises. Total employments generated in MSMEs sector is 59 566.525 Thousands, where the contribution of unregistered sector reaches 84.37 per cent (50 257.039 Thousands). A comparison of the third and fourth census shows that the growth rate in the number of unregistered MSMEs and employment generated by them are 168.66 and 167.76 per cent respectively.

The fourth census reveals that the unregistered MSMEs sector has achieved higher growth in terms of enterprises and employment than the registered sector. However, employment provided per unregistered unit remained more or less same in both these two censuses. This massive increase in number of enterprises and employments in the Fourth census is largely due to the inclusion of service sector and medium scale industrial units into the MSMEs sector.

## 6. Growth of Employment in the States & Union territories

In a developing country like India where unemployment and underemployment are big problems, the Small Scale Enterprises play a significant role in employment generation. All the four censuses of SSIs/MSMEs emphasized this.

### 6.1 Growth of Employment in the Registered SSIs/MSMEs in States

Growth of employment in the 28 states of India in the registered SSIs/MSMEs sector shows much variation among states. Table 3 illustrates this.

According to the first census total employment generated in the SSI sector at the national level is 1 653.178 thousands. More than 90 per cent of this employment has concentrated in fifteen states. These states are. Uttar Pradesh, Maharashtra, West Bengal, Tamil Nadu, Andhra Pradesh, Karnataka, Kerala, Rajasthan, Madhya Pradesh, Odisha, Bihar, Gujarat, Punjab, Assam and Haryana. In the second census, all the states other than Maharashtra, West Bengal, Kerala, Punjab and Assam the employment figures showed a growth rate of over 100 per cent. While Mizoram (11630.50) had the highest growth rate and Kerala (33.82) had the lowest position. In the Third census, 21 states showed a declining trend in growth rate of employment. Negative growth was recorded in states such as West Bengal, Bihar, Goa, Arunachal Pradesh, Mizoram and Sikkim. However in the fourth census there is considerable improvement in the growth rate of employment in 15 states. These include the states of Maharashtra, West Bengal, Rajasthan, Odisha, Bihar, Gujarat, Assam, J&K, Himachal Pradesh, Tripura, Goa, Nagaland, Arunachal Pradesh, Mizoram and Sikkim. Negative growth of employment was noticed only in Chhattisgarh and Andhra Pradesh. It is noteworthy that the states of Maharashtra and Assam showed considerably upward growth of employment in all the four censuses. From the above analysis, it is revealed that

the structural changes implemented in the Indian economy since 1991 had a favourable impact in the growth of employment in this sector in most of the states.

Table 3. Growth of Employment in the SSI/MSMEs in States in the registered sector (in thousands)

Sl. No	Name of states	1 <sup>st</sup> census (1972-73)	2 <sup>nd</sup> census (1987-88)	Growth rate (%)	3 <sup>rd</sup> census (2001-02)	Growth rate (%)	4 <sup>th</sup> census (2006-07)	Growth rate (%)
1	Uttar Pradesh	160.027	348.908	118.03	581.810	66.75	754.908	29.75
2	Maharashtra	239.775	355.900	48.43	630.576	77.17	1 088.790	72.67
3	West Bengal	176.198	311.838	76.98	254.809	-18.29	360.255	41.38
4	Tamil Nadu	215.182	536.381	149.27	882.083	64.45	1 426.056	61.67
5	Andhra Pradesh	78.763	276.127	250.57	383.335	38.82	382.977	-0.09
6	Karnataka	64.385	244.039	279.03	477.284	95.57	789.359	65.38
7	Kerala	126.514	169.309	33.82	540.260	219.09	621.423	15.02
8	Rajasthan	45.860	122.550	167.22	199.676	62.93	341.690	71.12
9	Madhya Pradesh	59.612	158.808	166.40	249.476	57.09	298.047	19.47
10	Odisha	18.614	69.305	272.33	80.888	16.71	173.088	113.98
11	Bihar	61.465	181.781	195.75	136.914	-24.68	147.775	7.93
12	Gujarat	114.500	276.955	141.88	578.764	108.97	1 244.981	115.11
13	Punjab	123.544	206.209	66.91	337.443	63.64	415.838	25.23
14	Assam	19.652	34.475	75.43	64.623	87.44	210.507	225.74
15	Haryana	45.803	105.656	130.67	241.171	128.26	381.774	58.30
16	Jharkhand	*	*	--	71.071	--	75.134	5.72
17	Chhattisgarh	**	**	--	91.000	--	75.094	-17.48
18	Jammu & Kashmir	9.598	40.658	323.61	50.707	24.71	90.158	77.80
19	Uttarakhand	***	***	--	40.583	--	79.941	95.68
20	Himachal Pradesh	5.851	25.536	336.43	37.760	47.86	65.148	72.53
21	Tripura	1.698	10.069	492.99	11.666	15.86	23.166	98.5
22	Manipur	3.409	10.216	196.68	19.626	92.11	19.960	1.70
23	Goa	7.253	19.935	174.85	16.664	-16.40	33.330	100.01
24	Meghalaya	1.188	3.780	218.18	10.734	183.96	12.701	18.3
25	Nagaland	0.448	3.059	582.81	4.967	62.37	16.281	227.78
26	Arunachal Pradesh	0.181	2.771	1 430.93	1.481	-46.55	5.411	265.36
27	Mizoram	0.036	42.233	117 213.90	9.061	-78.54	26.032	187.30
28	Sikkim	Not available	1.033	---	0.959	-7.16	1.159	20.85

(Source: - SIDBI Report on MSME Sector 2010; Final Result of 4<sup>th</sup> Census of MSMEs 2012)

\*Part of Bihar, \*\* Part of MP, \*\*\* Part of UP

### 6.2 Growth of Employment in the Unregistered SSI/MSMEs in States

Unregistered enterprises constitute a major component in the MSMEs sector. Third All India census for SSIs (Financial Year 2001-02) included data related to the units in the unregistered sector for the first time. Fourth All India census of MSMEs too included the unregistered enterprises. State wise growth of employment in the unregistered sector is presented in Table 4.

Third census estimated that in the unregistered sector there are 9 146. 216 thousands enterprises in the country and they provided employment to 18 769.284 thousands persons. The number of enterprises in the Fourth census (FY 2006-07) is 24 572.450 thousands with an employment of 50 257.039 thousands. The Fourth census has recorded 167.76 per cent growth of employment in the unregistered sector at the national level (Table 2). Among the 28 states of India, 14 states have achieved a higher growth rate than the national level in employment generation in the unregistered sector. The state of Sikkim attained the highest growth rate of 6 474.93 per cent. Even though the states of Manipur and Mizoram have negative growth rate of employment in the unregistered sector, in the registered sector they show positive growth. An interesting factor noticed is that 24 states showed a higher growth rate in employment in the unregistered sector, than the employment generated in registered units in these states. The states of Andhra Pradesh and Chhattisgarh that had negative growth of employment in the

registered sector achieved positive growth rate in the unregistered sector. According to the Fourth census Andhra Pradesh turned out to be the highest provider of employment in the unregistered sector (5 754.068 thousands) followed by the states of West Bengal (5 466.337 thousands) and Maharashtra (5 370.908 thousands). It can be seen that the employment generated in the unregistered units in the North-East states of Manipur, Nagaland and Mizoram are very poor.

Table 4. Growth of employment in the unregistered SSIs/MSMEs in States (in Thousands)

Sl. No.	Name of State	3 <sup>rd</sup> Census (2001-2002)	4 <sup>th</sup> Census (2006-2007)	Growth rate (%)
1	Uttar Pradesh	3 420.5645	014.36346.59	
2	Maharashtra	1 420.924	5 370.908	277.98
3	West Bengal	1 914.296	5 466.337	185.55
4	Tamil Nadu	1 136.054	4 794.581	322.03
5	Andhra Pradesh	175.642	5 754.068	3 176.02
6	Karnataka	1 161.419	2 895.439	149.30
7	Kerala	574.401	2 401.184	318.03
8	Rajasthan	667.932	2 066.855	209.44
9	Madhya Pradesh	1 095.117	2 294.540	109.52
10	Odisha	842.288	1 755.087	108.37
11	Bihar	945.771	1 477.621	56.23
12	Gujarat	687.912	1 815.918	163.27
13	Punjab	571.133	1 290.650	125.98
14	Assam	364.380	1 100.795	202.10
15	Haryana	312.288	971.848	211.20
16	Jharkhand	204.999	637.065	210.76
17	Chhattisgarh	440.766	652.802	48.10
18	J&K	101.992	328.441	220.02
19	Uttarakhand	154.480	317.115	105.27
20	Himachal Pradesh	92.510	242.134	163.73
21	Tripura	45.296	146.879	224.26
22	Manipur	117.185	100.229	-14.46
23	Goa	12.647	99.874	689.70
24	Meghalaya	54.852	89.589	63.32
25	Nagaland	51.828	53.836	3.87
26	Arunachal	2.206	35.698	1 518.22
27	Mizoram	15.789	11.624	-26.37
28	Sikkim	0.363	23.867	6 474.93

(Source: - SIDBI Report on MSME Sector 2010)

### 6.3 Growth of Employment in the Registered SSIs/MSMEs in Union Territories

In addition to the 28 states, India has seven Union Territories also. These union territories are directly administered by the central government.

The First census of SSIs collected data from four union territories only. They were Delhi, Puducherry, Chandigarh and Dadra & Nagar Haveli. As per this census, the highest number of employment was produced in Delhi and lowest in Dadra & Nagar Haveli. In the second census, two more union territories such as Andaman & Nicobar Islands and Daman & Diu were included. Here Dadra & Nagar Haveli recorded the highest (455.11%) growth rate of employment and Delhi the lowest with 87.99 per cent. Third and Fourth census covered all the seven Union territories. According to the Third census, highest growth rate of 1 958.79 per cent was seen in Daman and Diu followed by Dadra and Nagar Haveli (519.78 per cent) and Puducherry (126.33 per cent). Delhi

and Chandigarh showed negative growth. Fourth census records highest growth rate of employment (115.61 per cent) in Andaman and Nicobar Islands. This Union Territory, which was included only in the second census onwards, has an increasing trend in employment both in third and fourth census. In the Fourth census too Delhi depicts a negative growth. Lakshadweep is the other Union Territory which has a negative growth rate of employment in this Census.

Table 5. Employment generation in registered SSIs/MSMEs in Union Territories (in Thousands)

Sl. No	Name of Union Territory	1 <sup>st</sup> census (1972-73)	2 <sup>nd</sup> census (1987-88)	Growth rate (%)	3 <sup>rd</sup> census (2001-02)	Growth rate (%)	4 <sup>th</sup> census (2006-07)	Growth rate (%)
1	Delhi	64.880	121.972	87.99	86.479	-29.09	58.123	-32.78
2	Puducherry	2.570	8.721	239.33	19.739	126.33	21.086	6.82
3	Chandigarh	2.882	10.579	267.07	10.563	-0.15	11.705	10.81
4	Andaman & Nicobar	NA	1.672	--	2.594	55.14	5.593	115.61
5	Daman & Diu	NA	1.233	--	25.385	1 958.79	25.518	0.52
6	Dadra & Nagar Haveli	0.381	2.115	455.11	12.918	519.78	26.476	104.95
7	Lakshadweep	NA	NA	--	0.253	--	0.002	-99.20

(Source: - SIDBI Report on MSME Sector 2010; Final Result of 4<sup>th</sup> Census of MSMEs 2012)

#### 6.4 Growth of Employment in the Unregistered SSIs/MSMEs in Union Territories

Growth of employment in the unregistered SSIs/MSME in the union territories is presented in Table 6

Table 6. Employment generation in unregistered SSIs/MSMEs in Union Territories (in Thousands)

Sl. No	Name of Union Territory	3 <sup>rd</sup> census (2001-02)	4 <sup>th</sup> census (2006-07)	Growth rate (%)
1	Delhi	466.920	2 800.294	499.73
2	Puducherry	15.470	50.471	226.25
3	Chandigarh	37.689	82.760	119.58
4	Andaman & Nicobar	4.885	6.445	31.93
5	Daman & Diu	3.709	50.770	---
6	Dadra & Nagar Haveli		54.712	---
7	Lakshadweep	Not available	2.239	---

(Source: - SIDBI Report on MSME Sector 2010)

According to the latest MSMEs census, Delhi is in the first place with 2 800.294 thousands employment in unregistered enterprises and Lakshadweep is in the last place with 2.239 thousands. In the Third census, data related to employment in unregistered enterprises in Daman & Diu and Dadra & Nagar Haveli are clubbed together, and Lakshadweep is not available. But in the Fourth census, data on all the seven Union Territories are separately available. Highest growth rate of employment (499.73per cent) has recorded in Delhi and the lowest in Andaman & Nicobar (31.93 per cent). Puducherry and Chandigarh have growth rate above 100 per cent. It can be understood from the results of the Fourth census that the unregistered enterprises in Union Territories achieved better progress in employment generation.

#### 7. Growth of Employment in MSMEs in the Pre-Reform and Post-Reform Periods

Post-reform period began in India by the introduction of globalization, liberalization and privatization policies in

the year 1991. Since 1991, a series of economic reforms have been introduced in the Indian economy. India's agreement with World Trade Organization in 1995, dilutions in Monopolies and Restrictive Trade Practices (MRTP) Act and licensing policies, reduction in the items exclusively reserved for the SSIs etc created intense competition from large firms and multinational companies to the Indian MSMEs. However, in spite of all these constraints MSMEs have achieved better growth rate in terms of numbers of enterprises and employment in the post-liberalized period. For a comparative study of the growth of employment in the SSIs/ MSMEs sector, data related to employment generated for the period 1973-74 to 2011-12 are used. It is presented in Table 7.

Table7. Employment Generation in SSIs/MSMEs (Pre-Reform and Post Reform Period)

Pre-Reform			Post-Reform		
Year	Employment (Thousands)	Growth Rate (%)	Year	Employment (Thousands)	Growth Rate (%)
1973-74	3 970		1990-91	12 530	
1974-75	4 040	1.76	1991-92	16 600	35.48
1975-76	4 590	13.61	1992-93	17 484	5.32
1976-77	4 980	8.49	1993-94	18 264	4.46
1977-78	5 400	8.43	1994-95	19 140	4.80
1978-79	6 380	18.14	1995-96	19 763	3.41
1979-80	6 700	5.01	1996-97	20 586	4.00
1980-81	7 100	5.97	1997-98	21 366	3.79
1981-82	7 500	5.63	1998-99	22 055	3.22
1982-83	7 900	5.33	1999-2000	22 910	3.87
1983-84	8 415	6.51	2000-01	23 873	4.20
1984-85	9 000	6.95	2001-02	24 933	4.44
1985-86	9 600	6.66	2002-03	26 021	4.36
1986-87	10 140	5.62	2003-04	27 642	4.30
1987-88	10 700	5.52	2004-05	28 257	4.10
1988-89	11 300	5.60	2005-06	29 491	4.36
1989-90	11 960	5.84	2006-07	80 523	173.04
CAGR Pre reform		<b>6.70</b>	2007-08	84 223	4.59
CAGR Post reform		<b>9.96</b>	2008-09	88 114	4.41
Overall CAGR		<b>8.66</b>	2009-10	92 219	4.61
			2010-11	96 569	4.66
			2011-12	101 259	4.85

(Source: Laghu Udyog Samachar Vol. XXIX.No.12 to 2, MSME Annual Report2010-11,2011-12, 2012-13)

In the pre reform period, the year 1974-75 recorded the lowest growth of employment (1.76%) and the year 1978-79 had the highest growth of 18.14 per cent. In the post reform period highest growth of 173.04 per cent occurred in the year 2006-07. This sudden increase in employment in the post reform period is largely due to the enactment of the Micro Small and Medium Enterprises Development (MSMED) Act 2006, by which Medium scale and Service Enterprises are included in to the Small Scale Industries Sector (SSIs). By this Act the SSIs sector is redefined as Micro Small and Medium Enterprises (MSMEs) Sector. The above table shows that the SSIs/MSMEs compound annual growth (CAGR) of employment in the pre reform period is 6.70 per cent but it is 9.96 per cent in the post reform period. The statistical tool Independent Samples t Test also is applied to verify whether there is any difference in mean of employment generation in pre and post reform periods and it is found that even at 99 percent confidence level there is significant difference. It means that employment generated in SSIs/MSMEs sector increased in the post reform period. The combined CAGR of pre and post reform period is 8.66 per cent. It can be concluded that both in the pre and post-reform periods SSIs/MSMEs sector of India played a pivotal role in creation of new employment avenues.

### 8. Relationship between Number of Enterprises and Employment Generated

Correlation coefficient is calculated to study the relationship between the variables- the number of enterprises and the number of employment generated. It is given in Table 8.

Table 8. Relationship between number of enterprises and employment generated

Period	Number of Registered Enterprises (in Thousands)	Number of Employment (in Thousands)	Number of Unregistered Enterprises (in Thousands)	Number of Employment (in Thousands)
First Census (1972-73)	139.577	1653.178	---	---
Second Census (1987-88)	582.368	3665.810	---	---
Third Census (2001-02)	1374.974	6163.479	9146.216	18769.284
Fourth Census (2006-07)	1563.974	9309.486	24572.450	50257.039
Correlation Coefficient } Coefficient of Determination }	<b>0.960013672</b>		<b>1.0000</b>	<b>1</b>

(Source: Compiled by the researcher using the data from the four Results of All India Census of SSIs/MSMEs published by Government of India)

Correlation coefficient in the registered sector is 0.96 and strong positive correlation is seen between the variables. The coefficient of determination is 0.92. It indicates that 92 percent of the growth in employment is due to growth in the number of enterprises. In the unregistered sector there is perfect correlation between the two variables.

## 9. Findings

After attaining independence in 1947 India has been promoting the growth of SMEs through various policies and programmes. As a result of these the number of enterprises and employment in the SSIs/MSMEs sector of India increased manifold. Now this sector with above 26 million enterprises provides employment to nearly 60 million persons. In the Second All India Census of SSIs the growth rate of registered units was 317.23 per cent and that of employment was 121.74 per cent. Third census showed a decline in the growth rate of registered units and employment to 136.10 per cent and 68.13 per cent respectively. In the Fourth census the growth rate of enterprises in the registered sector is only 13.74 per cent but the growth of employment is 51.04 per cent.

Unregistered enterprises form a major segment of the SSIs/MSMEs sector of India. The fourth census shows that 94.02 per cent of the total enterprises and 84.37 per cent employments generated are in this sector. In the post reform period this sector has achieved higher growth rate in enterprises and employment than the registered sector. The fourth census gives the growth rate of unregistered enterprises as 168.66 per cent and that of employment being 167.76 per cent. This means that the unregistered sector has achieved better growth in enterprises and employment than the registered sector. In the unregistered sector all Indian states except Manipur and Mizoram have achieved better growth in employment than in the registered segment.

The fourth census reflected the impact of structural changes implemented in India since 1991. Compounded Average Growth Rate (CAGR) of employment in the post reform period is higher than the pre reform period. Independent sample t test too shows that there is significant difference in mean of employment generated in both these periods. Hence it can be inferred that the MSMEs sector of India performed well in generating employment even after the implementation of globalization and liberalization policies.

## 10. Conclusion

In a developing country like India MSMEs sector can play a crucial role in creating employment avenues to the unemployed and underemployed people. More than 80 percent of the employment generated in this sector is contributed by unregistered enterprises. This emphasizes the need for giving priority to unregistered sector in future policies and plans for the promotion of MSMEs. It is also seen that despite the withdrawal of various protectionist policies and severe competition from Multi National Corporations and large Indian firms, MSMEs sector of India has achieved better progress in employment generation. Thus, it can be concluded that other developing nations of the world can also adopt the strategy of promoting MSMEs for employment generation and reducing unemployment

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# What's the Missing Link? - Reviewing Climate Change Policies in Context of Indian Agricultural Sector

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Received: June 13, 2015 Accepted: July 21, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p268

URL: <http://dx.doi.org/10.5539/ass.v11n24p268>

## Abstract

Government of India has recently announced for special funds like National adaptation fund to handle market risks arising due to climatic variability. The operational protocol of this fund and other forthcoming initiatives have yet to be expanded, but through this paper we like to draw attention to some of the policies and programmes that the Governments of India have already initiated and that directly or indirectly link to managing the risks and challenges faced with climate change in context of agriculture sector. These policies have their own merits and demerits, but it is the need of the hour to draw synergies between the existing policies and new proposed actions to draw on the strengths of the ongoing programs and build up on that. This paper is also relevant in the context of UN Climate summit 2014 held on 23<sup>rd</sup> September and Food and Agriculture Organisation (FAO) aim at a global alliance for climate smart agriculture along with India's prime ministers speech on 15<sup>th</sup> august, 2015 and the budget speech emphasising on threat that agriculture is facing because of climate change and government willingness to give emphasis on this agenda in context of agricultural sector. With the critical analysis, we also want to highlight the richness in the policy framework of several policies which are interlinked with each other, but due to lack of coordination their implementation might not be very appropriate.

**Keywords:** agriculture, climate change, policies and programs, food security, India

## 1. Introduction

The issue of climate change has been emphasised in India's policy making over the last decade through several policies focusing on various aspects of climate change. This is evident from the ambitious launch of National Action Plan for Climate Change (NAPCC) which was adopted on 30<sup>th</sup> June, 2008, the National Adaptation Fund (NAF) and an overall shift towards sustainable practices to achieve India's developmental goals (Government of India, 2008a)

India's climate change policy has been driven by principle of equity - "that must allow each inhabitant of the earth an equal entitlement to the global atmospheric resource" (Rai & Victor, 2009). Over the last decade and a half India has adopted a more pro-active approach to climate change policy with the vision 'to create a prosperous, but not wasteful society, ... self-sustaining in terms of its ability to unleash the creative energies ... (and) mindful of (our) responsibilities to both present and future generations' (Government of India, 2008b). It is strongly influenced by the priorities of poverty eradication and enhanced socio-economic development. India's climate change policy strongly echoes the principles of the global alliance for Climate Smart Agriculture (CSA) led by the Food and Agriculture Organisation (FAO) (Food and Agriculture Organisation, 2014). The basic principle of CSA that India has adopted is to sustainably increase agricultural productivity and develop resilient food systems while reducing GHG emissions.

But, in spite of these initiatives, India remains the third highest green-house gas emitter (Olivier, Maenhout, & Peters, 2012) after US and China. It is due to the lack of any consistent framework that guides India's effort towards reduction in emission (Dubash, Raghunandan, Sant, & Sreenivas, 2013).



In this article we explore the climate change policies of India and identify the ‘missing link’ between several policies addressing similar objectives. This paper showcase national level policies of the Government of India (GOI) that outlines India strategy to deal with the issue of climate change. It focuses on the agricultural sector because of its vulnerability to climate shocks as well as significant contribution greenhouse gas (GHG) emissions. Simultaneously, it presents a critical analysis of these policies to highlight the scope for improvement in policy design as well as its implementation.

In this article we adopt a broader definition of climate change policy which includes policies that aim at mitigation of emissions as well and management of current market risk and production risk due to climate adversities. The discussion in the paper is divided into three sections- the first section talks about the status, goals and objective of the national policies on climate change with focus on agriculture sector. The second section present the missing link between these policies which is supplemented by the critique of these policies from the literature review. The conclusion is presented in the last section.

## **2. Climate Change and Agriculture in India: Policy Framework**

Developing countries continue to be trapped in the ‘intractability of poverty, social exclusion and inequality’ (Kabeer, 2009) which are significant impediments for economic growth and inclusive development. Sustained and rapid agricultural growth has been argued to have the strongest impact on poverty alleviation (Dell, Jones, & Olken, 2012; Irz, Lin, Thirtle, & Wiggins, 2001). A large share of the population in developing countries is directly or indirectly linked with the agriculture sector. Hence, it is important to understand the factors that impact the growth and development in this sector. In recent times, the agricultural sector has become largely susceptible to the increasing incidence of climate shocks and variability leading to vulnerability in economic growth along with food scarcity and food inflation. According to one of the estimates by Guiteras (2009), yield of major crops in India can fall by 4.5 to 9 per cent due to climate change. More specifically, Auffhammer, Ramanathan & Vincent (2006, 2012) attributes the stagnation of rice yields in the 2000s to climate change (Note 1). Results presented by Duncan, Dash & Atkinson (2015) show that rising night temperatures in Punjab and Haryana is leading to fall in average wheat crop yield. Agriculture and climate change seems to be trapped in a vicious cycle. Notwithstanding the negative impact of climate change that agriculture bears, the sector also significantly contributes towards Green House Gas (GHG) emissions leading to climate change. According to the IPCC report (2014), agriculture and its allied sectors contributed to 20-25 per cent of global emissions in 2010. India is a significant contributor to methane emissions (IPCC, 2014) and hence it needs to actively and effectively undertake strategies for mitigation without compromising on countries priorities of food security and agricultural development. In this context India faces the complex challenge of balancing between climate change mitigation and inclusive economic growth. Presently the agriculture sector is largely driven by policies and technologies which are emission intensive (Garg, Bhattacharya, Shukla, & Dadhwal, 2001; Pathak, Li, & Wassmann, 2005). However, any changes in agricultural practices has to account for the intrinsic importance of the sector toward food security as well as the fact that it is the source of employment for almost half of India’s population (Ministry of Statistics & Programme Implementation, 2014).

Climate change is a long term phenomenon and to tackle the risk associated with it, government also formulate policies to safeguard farmers, poor producers and consumers in rural and urban locations. Some of these policies are targeted directly towards long term climate change linked mitigation strategies and enabling the population to adapt to the changes, others are also short term risk covers that help these vulnerable populations to cope with the risk that directly or indirectly are due to climate change and climatic variability. Most of the policies are usually not formulated keeping climate change directly in the frame, and thus these policies directly falls under the main objective of ensuring food security to all. Thus these policies are directed to either reduce production risk through improved production and productivity or they try to provide food at reduced prices that help poor to get food at affordable or subsidised prices even if the food inflation is high due to market uncertainties. The linkages between government policies on climate change with managing risk and ensuring food security is presented in the framework of policies as presented in Figure 1. Climatic variability through production and market uncertainties pose threat on food security situations. Thus different agricultural food policies are designed to tackle different aspects of these risks, but some do cover both the aspects too. Because farmers and poor consumers vary in their attitudes toward risk and their ability to address risk-prone situations, risk management cannot be viewed within a “one size fits all” approach.

Two primary policies designed by the Government of India for the purpose of food security and sustainability are the National Agricultural Policy (NAP) in 2000 and more recently, the National Mission for Sustainable Agriculture (NMSA) as one of the 8 missions under the National Action Plan for Climate Change (NAPCC) in 2008. The NAPCC is the over-arching policy document that envelops eight national missions. The underlying

principles of the NAPCC, seek to mitigate climate induced risk and this embodies a 'directional change' in the approach to climate change in India. While adaptation has been the only focal point in the past, the NAPCC appreciates the importance of mitigation; given rapid economic growth, at the cost of enhanced climate vulnerability is an unsustainable path for development (Government of India, 2008b).

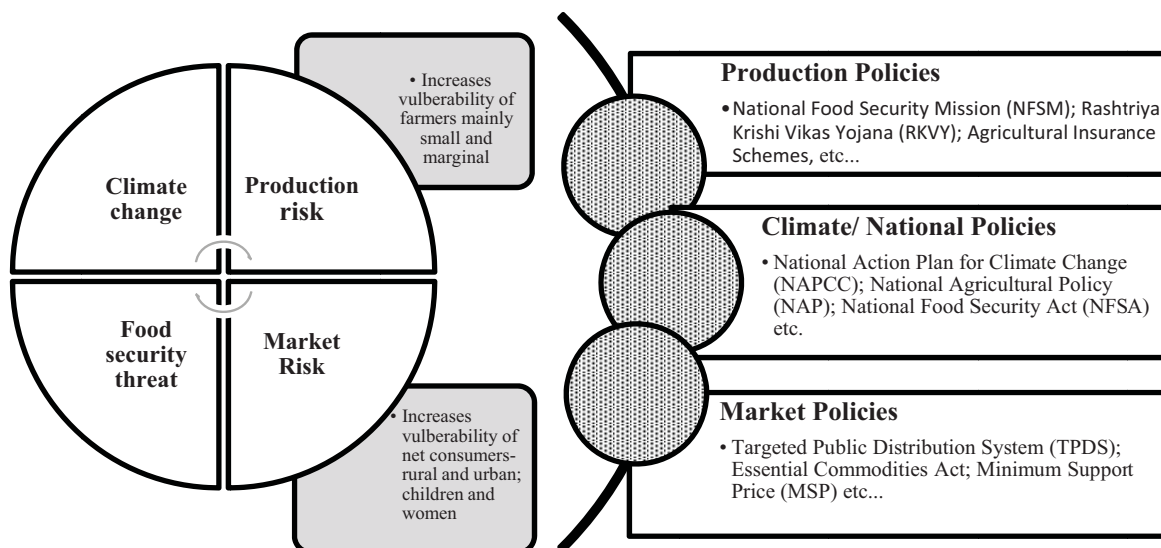


Figure 1. Framework of policies

In addition to the NMSA which directly influences agriculture, the NAPCC also comprises of the National Mission on Strategic Knowledge on Climate Change (NMSKCC). Under this Mission, the effort is to encourage research, innovation and extension of CSA practices. Along with the NMSA and NMSKCC, India has several other policies and programmes such as public distribution system, minimum support prices, subsidies on machineries that can be co-ordinated to develop a comprehensive short-term risk mitigation system, along with long term strategy for emission reduction like use of climate smart technologies and conservation agriculture technologies.

### 3. Present Policies Linked to Climate Change and Agriculture

While reviewing climate change from a socio-economic point of view, climate change policy needs to be appreciated in association with welfare policies like The National Food Security Act (NFSA) that is challenged with providing subsidised food across poor households even in the incidence of severe climatic shocks. These policies mitigate the risks of climate shocks by safeguarding farmers against production and market risks such as ensured returns on production through minimum support prices, safety net against crop loss through various insurance schemes, ensuring availability of appropriate inputs etc. In addition, climate change policy also targets market risks from the perspective of poor and vulnerable consumers in rural and urban locations.

Guided by the NAPCC, the NMSA strives to modify Indian agriculture to be climate resilient while enhancing productivity in order to meet the food security challenge of India. This goal needs to be addressed in two steps: (i) adopting climate smart technologies; and (ii) managing production and market risks. One of the primary aims of the NMSA is technological innovation that prioritise socio-economic development with co-climate-benefits (Government of India, 2008b) to adapt or mitigate climate vulnerabilities of Indian agriculture (drought, flood, vagaries of precipitation). It is imperative to move away from chemical fertiliser and large irrigation-led agriculture to climate-smart practices of climate adaptation, resource conservation and enhanced productivity. In designing technological innovation, with a special focus on dry land agriculture, agricultural extension services and bio-technology it is important to ensure that it does not become exclusionary in nature as its target beneficiaries are a number of small and marginal farmers. The NAPCC advises the NMSA to combine traditional knowledge and practise systems with modern adaptation and mitigation effort. The National Mission on Strategic Knowledge for Climate Change (NMSKCC) has been designed to co-ordinate between the various sources of information to facilitate meaningful knowledge exchange (Government of India, 2010).

With somewhat similar objectives, The National Food Security Mission (NFSM), launched in 2007, initiated the

process of adopting sustainable agricultural techniques like nutrient management, resource conservation, along with capacity building of farmers, specifically in rice, wheat and pulses. The implementation of the Mission is through existent institutions at the centre, states, district and village level. At the state level it co-ordinate with various State Agricultural Universities (SAUs), Indian Council of agricultural Research (ICAR) institutes, State Agricultural Management & Extension Training Institute (SAMETI) and is guided by the State Food Security Mission Executive Committee (SFSMEC) which is constituted by the Mission. At the district level the primary implementing agency is Agricultural Technology Management Agency (ATMA) in close co-ordination with the KVKs, PRI system etc. (Government of India, 2007). The Rashtriya Krishi Vikas Yojana (RKVY) has been designed for integrated agricultural development and providing institutional support for technological innovation towards reduction in yield gap of various crops. The RKVY is federal in nature and has inbuilt flexibility to adopt 'focused interventions' depending upon the specific agro-climatic conditions. This focus has great relevance to customise the adoption of CSA as well as prioritising different practices on changing agro climatic dynamics with long term predictions in mind. For e.g. changing land use pattern for diversification towards crops that will be resilient to future climatic conditions. In Haryana, where depleting ground water level is of growing concern (Bhalla, 2007), government policies are encouraging diversification of rice towards maize (Government of Haryana, 2014).

There has been some effort to design NMSA as one comprehensive policy by merging it with other programs which also target sustainable agriculture. The Annual Plan document, 2013-14, of the Ministry of Agriculture subsumes Micro Irrigation (MI), National Project on Management of Soil Health and Fertility (NPMShF), Rainfed Area Development Programme (RADP) and Macro Management of Agriculture (Soil & Water conservation and Land Reclamation Programmes) into the NMSA and treat each of these as sub-missions. In addition to adaptation to climate change ex-ante, the NMSA is also responsible for mitigating risks, ex-post. For instance the several welfare policies such as the Minimum Support Price (MSP), National Food Security Act (NFSA) which encompass ICDS, MDM, TPDS and other food security related schemes along with agricultural insurance schemes such as Weather Based Crop Insurance Scheme (WBCIS), Comprehensive Crop Insurance Scheme (CCIS), Farm Income Insurance Scheme (FIIS) and Modified National Agricultural Insurance Scheme (MNAIS) are important safety-nets in case of a crop failure. These schemes have been designed as safety nets for producers and consumers of agricultural produce in times of stress.

In addition to the NMSA, India also has the National Agricultural Policy (NAP) and National Food Security Mission since 2000. The NAP is the guiding document for contemporary Indian agriculture, with the long term goal of achieving and sustaining 4 per cent annual agricultural growth. It is driven towards the achievement of self reliance in food production, contribute to household food security and narrow the level of inequality in the economy. NAP was designed to tap on this hidden growth potential by strengthening rural infrastructure, reduction in price volatility, encouragement of private and group participation, focus on non-agricultural activities in the primary sector, greater value addition, growth of small scale agro-businesses and generation of gainful employment within the sector (Singh, 2002). This aim of self reliance is threatened due to climatic variability. Exposure of important cereal crop such a wheat or rice to untimely precipitation and excess can cause to widespread crop failure and scarcity of food.

Under the global alliance for CSA, knowledge transfer plays a significant role. An 'inclusive, knowledge sharing platform' is central to the approach suggested by the FAO (Food and Agriculture Organisation, 2014). To create awareness and increased adoption of climate smart agriculture practices, National Mission on Strategic Knowledge for Climate Change (NMSKCC) adopted in July 2010 complements the NMSA policy. NMSKCC feeds into the knowledge base that caters to both production and market risk management policies. The Mission document is drawn in light of the fact that various sources of information co-exist but these are varied, in terms of size, nature of institutions and information, and dispersed across the length and breadth of the country. The NMSKCC proposes a co-ordinated mechanism and process with a view to further enhance the effectiveness and impact of various existing intra- and extra-mural knowledge generating systems in the country' (Government of India, 2010).

Two sub-missions have been adopted by NMSKCC: (i) one pertains to knowledge management regarding the different aspects of climate shocks such as floods, droughts etc. and (ii) the other deals with key sectors that are affected by climate shocks such as agriculture, health etc. The NMSKCC states the importance of research suited to local climate conditions and indigenous knowledge systems. At the same time build alliances and partnerships through global collaborations, to develop national capacity for research, infrastructure, human resources etc. This mission should work closely with the National Agricultural Research System (NARS) in India. The system was established in 1905 and spearheaded by the Department of Agricultural Research and Extension (DARE). It

focuses on agricultural research and education in India. It also manages several programs towards the goal of knowledge generation and dissemination in the agricultural sector.

NMSKCC also needs to closely link with The National Agricultural Innovation Project (NAIP) and Agricultural Technology Management Agency (ATMA), two contemporary knowledge generation and dissemination programs for improving accumulation and dissemination of technology and knowledge. The NAIP, funded by World Bank, is designed as one of the tools to achieve the 4 per cent agricultural growth target undertaken by the NAP. It specifically targets the objectives of generation and transfer of agricultural technologies and reform the current system (ICAR, 2012). The Project recognises the constraints that small size of land holdings has limited the use of technology, initial adverse impacts of climate change, pertaining to soil erosion, unpredictable precipitation, and deterioration in soil quality have set in etc. In this background, the NAIP adopts a positive approach to integrate the market in sorting out some of the bottlenecks and recognises the untapped potential which can be released with the help of technological advancement. The overall objective is to achieve accelerated and sustainable transformation within the agricultural sector which will directly impact poverty alleviation and livelihood generation. NAIP has two set of priorities. Firstly, institutional development which aims for a delicate balance between utilization of indigenous knowledge and creation of new knowledge while maintaining documentation, validation and dissemination of knowledge. Secondly, Research & Development (R&D) priorities of NAIP are dynamic in nature as they are developed according to local requirements. Agricultural diversification, livestock & fisheries production, genetic resource and bio-prospecting, natural resource management, integrated pest management, value addition and post harvesting processes are a part of it. This is complemented with Agricultural Technology Management Agency (ATMA) project launched in 1998. This responsibility of the ATMA, in each districts, is to integrate extension programs across key line departments; link research and extension activities within each district; and decentralize extension decision-making through a participatory program planning process that would directly involve all categories of farmers, including farm women, in setting extension priorities and assessing programs at the block and district levels. Both ATMA and NAIP are expected to aim at transfer of technology using modern means of communication (Mittal and Mehar, 2012). They aim at transferring information and knowledge about CSA practices that enables farmers to reduce risk, impact of climate shocks and also enable them to mitigate and adapt to the impact of climate change. By this these two programs contribute to the mission objectives of NMSKCC.

#### **4. Identifying the Missing Links and Moving Forward**

##### *4.1 Lack of Clarity*

While the NAPCC clearly illustrates the principles of climate change policy for India, specific goals, targets and prioritisation of the same is missing. It shies away from committing quantitatively to reduction of emissions or energy efficiency notwithstanding some existent targets in other government documents (Agarwala, 2008; Byravan & Rajan, 2012; Sanwal, 2008). The only quantitative target is to continue its status quo of not exceeding per capita emissions of developed countries. The Plan needs to be revised with the aim of greater clarity in actions and short to medium terms goals. Rai and Victor (2009) argue that on one hand it contains cost effective and ready to be implemented policies, while on the other it appears to be a wish list of policies that are difficult to be achieved in the short or medium term. There is a lack of coordination across the various missions of the Plan. The policy review presented by IFMR (2012) points out that some of the missions are confusing and lacks clear direction.

##### *4.2 Business as Usual*

NAPCC is often critiqued as a 'business as usual document' which does not significantly change the status quo similar to the NMSA which also forms the backbone of India's approach to climate sensitize agricultural practices and have limited suggestions for strategic changes (Byravan & Rajan, 2012; Ramanjaneyulu & Kuruganti, 2009). The Mission fails to translate the urgency of the climate change problem and it's inter linkages with agricultural practices and further into policy. E.g. over dependence on chemical fertilizers continues to persist. Further, research and innovation towards shock resistant crop varieties, particularly in case flood and drought, has not been stressed. The kind of innovation that is included in the mission is critiqued to be 'narrow' and 'market-driven' with excessive focus on technological innovation that might be skewed toward large farmers. Suggestions of Ramanjaneyulu and Kuruganti (2009) argue that the approach continues to be of a top-down 'lab to land' nature which primarily required over dependence of farmers on agricultural extension services from the government. The nature of agricultural extension services are very poor, infrastructural bottlenecks traps farmers at a sub-optimal equilibrium, inefficient incentives and lack of appropriate safety nets stifles scalable innovation (Byravan & Rajan, 2012). Thus, to fulfil the objectives outlined by the NMSKCC, it is imperative for the

Mission to identify the different initiatives that are currently being undertaken by various stakeholders in the country and identify the potential players from the current pool of experienced institutions. Understanding of the target groups and how it impacts them can also help in strengthening the impact of information (Mittal & Mehar, 2015). No attempt has been made to capture the rich and unutilised pool of indigenous knowledge amongst the farming community itself, which are crucial for scalability of these policies.

#### *4.3 Missing Coordination*

A major gap in the NAPCC mission is its lack of emphasis on management of marketing risks which insures the consumers as well as the producer in the eventuality of climate shocks. In addition the failure of rest of the institutional framework, regulation and financial, has not been addressed in the Mission. There is a lack of co-ordinating the NMSA with other flagship programmes such as the NAP, NFSA, RKVY, NFSM etc. For instance, funds under the RKVY scheme can be used to finance programs/projects directed towards the goals of NMSA. Similarly the NAP and the NFSM has overlapping targeting which can be merged together to avoid duplication of ineffective policies. The NMSA suggests the adoption of technology driven strategies. However, it fails to appreciate the context in which these schemes are to be designed and implemented. One repetitive critique of the NMSA is that it has not been a consultative process between the policy makers and the farmers (Byravan & Rajan, 2012; Ramanjaneyulu & Kuruganti, 2009). Across the nation there is an existent chain of government sponsored agricultural universities and extension systems. This pool of resources shall be channelised into research and innovation for climate sensitive agriculture in close consultation with the agricultural community. However, it's ironical to note that NMSKCC falls significantly short of providing a detailed typological list of the various initiatives and its linkages with the other seven sub-missions of the NAPCC is weak (Byravan & Rajan, 2012). The objective of the mission that aims to fine tune research and its dissemination to the local needs of each region is designed in a centralised fashion rather than a participatory method, and thus it misses out on tapping local knowledge and appreciating the various gaps that exist in the field.

#### *4.4 Creating Impact*

Although ATMA project is a significant move in the direction of participatory approach for agricultural research and extension, it is important to link it up with the NMSKCC so that it is not resource constrained either financially or with adequate capacity and skilled personnel, which actually was a big constraint in the phase of scaling up of ATMA (Feder, Anderson, Birner, & Deininger, 2011; Singh & Meena, 2011). The Agricultural Finance Corporation (AFC) in 2009–10 reported that 52 per cent of respondent farmers said that they gained knowledge of new practices and technologies. However, only 25 per cent felt that this had helped to increase production (Government of India, 2013). Given this context it is mandatory to undertake large scale human resource development in order to bring about thorough change in attitude.

The implementation framework of ATMA needs to be dynamic and modernised. The long standing approach of treating farmers as beneficiaries of doles shall be revamped into a business-like approach where the farmers are the end customers. Lenin, Singh, & Vijayaraghavan, (2009), presents the findings of a study conducted in Ahmednagar and Dahod districts of Maharashtra and Gujarat respectively. It reports that a majority of the farmers did not monitor or assess the progress of on-field activities, did not have the power to veto or suggest any activity. However, another study reported that farmer participation is quite high in some districts of Kerala (Lenin, Singh, & Vijayaraghavan, 2009). These studies report information of specific pockets and are unreliable to evaluate the study as a whole. It is important to undertake a pan-India evaluation study and identify localized problems that leads to differential performance of the ATMA and also feed it back in the system to strengthen the program.

### **5. Conclusion**

Policies formulated act as the direction for future pathway towards development and thus in case of mitigating the climate risk, present policies act as the road map. Although at field and household levels farmers adopt different strategies that help them mitigate the risk against climate (Mehar, 2014), it is important to see how the government have taken initiative on these fronts. In order to understand this, the review of government policies presented in this paper is linked to climate change and food security that tends to either help in mitigating or adopting to production and market risk. The national action plan for climate change (NAPCC) has brought about a directional change in India towards the issue of climate change. It focuses both on adoption and mitigation and aims towards inclusive development keeping climate change effects and impacts in view. This plan has several mission but the issue is lack of coordination between the missions and actionable points are not very clearly laid out. National mission for sustainable agriculture (NMSA) and National mission on strategic knowledge for

climate change (NMSKCC) are the two most important missions of NAPCC that have direct linkages with policies related to agriculture and climate change. NMSA puts priority on policies that promote use of technologies suitable for small and marginal farmers as well along with keeping in view the climate smart technologies need. This is in line with the CSA initiative undertaken globally by FAO which advocated voluntary adoption of national strategies directed towards CSA. NMSA looks into reducing production risk along with tacking market risk too through the government polices of MSP and crop insurance. NMSKCC works on establishing knowledge networks and develop data sharing platforms to tackle climate risk, but the linkages between NMSKCC and NMSA seems to be very week although both mission together can have netter focus and targeted approach. Also not much effort is made to capture the indogenous knowledge of farming community itself.

Most of the government policies are driven by the objective of food security and thus are more focused on improving productivity and reducing production risk. National agriculture policy aimed at achieving and sustain 4 per cent annual agricultural growth and laid emphasis on risk management schemes like crop insurance. NAP adopts agricultural policies based in agro-climatic conditions and thus try to incorporate the technologies that are suitable by climatic situations. But still the NAP base most of its policies on input and output subsidies and are carelessly combined with climate polices. The National food security act and other such policies are about distribution of subsidised food that help poor and others with low purchasing power to meet their food requirements and cover the market risk. But such policies without complementary support to sustainable and cost effective production system will be not a viable long term policy. Government of India also have various policies that aim at improving production and productivity. Some of these polices acknowledge that climate change and variability is the principal cause of production uncertainties and thus adoption of technologies that are climate smart can help in reducing climate and production linked risks.

### Acknowledgments

This paper is drawn from the ongoing work that the authors are doing funded under the Climate Change, Agriculture and food Security (CCAFS) Project and is also supported by CRP Wheat.

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### Note

Note 1. Particularly, to atmospheric brown clouds (ABCs) which refers to air pollution emissions from burning of fossil fuel and biomass and greenhouse gas (GHGs) emissions

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# The Main Barriers to Export from The Free Trade Zones (Case Study of I.R.IRAN)

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Received: June 15, 2015 Accepted: July 16, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p277

URL: <http://dx.doi.org/10.5539/ass.v11n24p277>

## Abstract

Currently, future industrial development is contingent upon free zones, where the export of industrial goods, expansion of international trade, generation of new job opportunities and subsequent decrease in unemployment occurred. Free economic zones of the Islamic Republic of Iran were also established with the aim of cultural, economic and social plans to connect to international markets. The aim of this article is to focus on the main barriers that exist to export from the free trade zones in the country. In order to understand how Iranian exporters surmount obstacles and other variables including barriers related to human resources, financial issues and the market in free trade zones, we investigated the existing relationship and variables involved in export boost. The results obtained indicated that in developing markets, firms lack the essential managerial obligations to export and meet demands of the foreign market. Thus, major significant managerial capabilities and competencies are required for recognition of export barriers by adopting the best possible strategies.

**Keywords:** Anzali free trade zone, export barriers, free trade zones, financial barrier, human resources barriers

## 1. Introduction

During the first five-years, Iran's economic plan had been put into operation in 1989 to accomplish immediate reconstruction and economic recovery objectives following the imposed Iraqi war. The plan intended to exponentially extend the managed economy of the war to have a broader international scope based on consistent presence and long-standing global relationships. Since there have been some limitations, the plan faced problems in the market. On the other hand, changes in the local economy were inevitable. The state decided to select some locations as free economic zones to expedite processing and tackle export problems.

The act of free zone was passed by the Iranian parliament on September 1993, based on which Kish and Qeshm Islands as well as Chabahar port were named as free zones of the country and 4 subsequent locations, namely Aras, Arvand, Anzali, and Makoo were later added to these zones. Besides these, 23 special economic zones currently exist in Iran and are growing increasingly in number because of their positive impact on the economy, industry, and production. Consequently, the council of ministers created the free zones' bylaw, through which all regulations concerning investment, labour, import, export, banking, and employment of these zones were considered.

Free trade and special economic zone are territories controlled by the Iranian government. According to a certain local law and bylaws, these locations are free from any customs regulations for import and export. Since these zones are located in a special area, they enjoy ample developed infrastructure and are charged with foreign investment incentives. They provide a special opportunity for local and foreign investment.

The goal of this study is to extend Iran's economy by concentrating on enhancing the export issues in free trade zones. In order to achieve the objective of this study, the following goal should be fulfilled:

To determine the extent to which the Iranian exporters are aware of export barriers in free trade zones and the relationship between awareness and other factors included. Moreover, export performance is investigated using the provided variables and are far from the study objectives. The scope of this research is determined by the research question and provides the overall direction.

### *1.1 The Research Question Is as Follows*

What are the major barriers in free trade zones? How are they perceived by the Iranian exporters? And to what extent has this awareness affected the export performance?

### *1.2 Study Area*

The study is conducted in the realm of export companies in the free trade zone of Anzali port, a major location which is located to the north of Iran besides the Caspian Sea. If the focus of study was in the private sector and individual entrepreneurs, more appropriate results could be obtained as they do not work with any governmental support and understand the barriers better. However, the main focus is on the obstacles and problems faced by the companies in the Anzali free trade zone.

## **2. Literature Review**

### *2.1 Free Trade and Special Economic Zones in Iran*

Free trade and special economic zones are areas which are involved within the realm of the Iranian government. They have their own specific regulations and more importantly they are exempted from customs services and all goods and commodities can enter the country freely within certain stipulated regulations. These areas provide the major elements of investment, including specific geographical zones, required infrastructures as well as foreign investment incentives all of which make local and international investment possible (Hakimian, 2011).

Free trade zones in Iran have the following legal advantages:

1. Foreign investment support and guarantee.
2. The possibility of exporting a part of manufactured products to the motherland with no customs duties.
3. The possibility of foreign investment in any amount, namely to the total proportion of the investment.
4. Full freedom of entry and exit of capital and its resultant interest.
5. Granting visa and issuing the required certificate for residency of the foreigners.
6. Providing facilitated laws and regulation for working relationships, employments, and social security.
7. Free import of products to and from the zone with no customs duties.
8. Tax exemption for 20 years from the operation date for all economic activities.
9. Use of trained and expert human resources in all occupational levels.
10. Use of raw oil and gas materials as raw materials and fuel in all industrial activities.

### *2.2 Free Trade Zone of Anzali*

The Anzali free trade zone is located in Gilan province, north of Iran. According to the latest political divisions, the area allocates to itself parts of Anzali and Rasht cities and encompasses 14 rural districts. Some parts of the Ligaraki Hassan Rood village from the central district of the Anzali City, Haji Bakandeh village from the Khoshbijar district of the Rasht City, and Khamam village of Khamam district of the Rasht City were included in the free zone. The Anzali free zone comprises of 3200 hectares of land area and 40 km/m<sup>2</sup> of marine area (Miandehi & Masrouri, 2013). The zone also covers the Golshan area (the commercial and industrial section of the district), Hassan Rood industrial town and the port area of Department of Ports and Maritime of Gilan province. The issue enhanced the attraction and desirability of free commercial-industrial zone of Anzali and increased the chances for legal authorities to present facilities regarding loading and unloading and other related procedures.

#### *2.2.1 Geographical Location*

Sharing a common border with Gilan province, the port of Anzali is located 23 kilometers east of the town, with the Caspian Sea on the north and Fatato village and Ghazian in the north. Anzali Bay is also located to the west of the town and the Khomam highway from the West to the North West. The area comprises of two different sections in the west and the north, each of which has its specific functionality.

#### *2.2.2 Economic and Geographical Advantages*

There are some port installations, facilities, and maritime transportations in the north-south international corridor of Nostrac, also known as the transit corridor of Asia-Europe of the 21<sup>st</sup> century and considered to be the most salient feature of the Anzali port. The corridor connects the Helsinki port (North Europe) via Russia to the north & southern ports of the Caspian Sea, and passes through the Persian Gulf to the south-eastern countries of Asia.

Some of other characteristics that distinguish the Anzali port are as follows:

1. It is the nearest free zone to the capital (Tehran) and other industrial and densely populated centers of the country, namely referred to as consumption markets.
2. Special location with concern to the relationship with the Caspian Sea Countries.
3. Proximity within Astarakhan and Lagan ports in Russia, Krasnovodsk in Turkmenistan, Aktau in Kazakhstan, and Bako in Azerbaijan.
4. Access through appropriate roads to market countries in CIS.
5. Proximity to Rasht International Airport facilitated with full navigation instrument.
6. Totally delineated zone with complete Geographical Information System.
7. Proximity within the largest oil and gas reservoirs of the Caspian Sea.

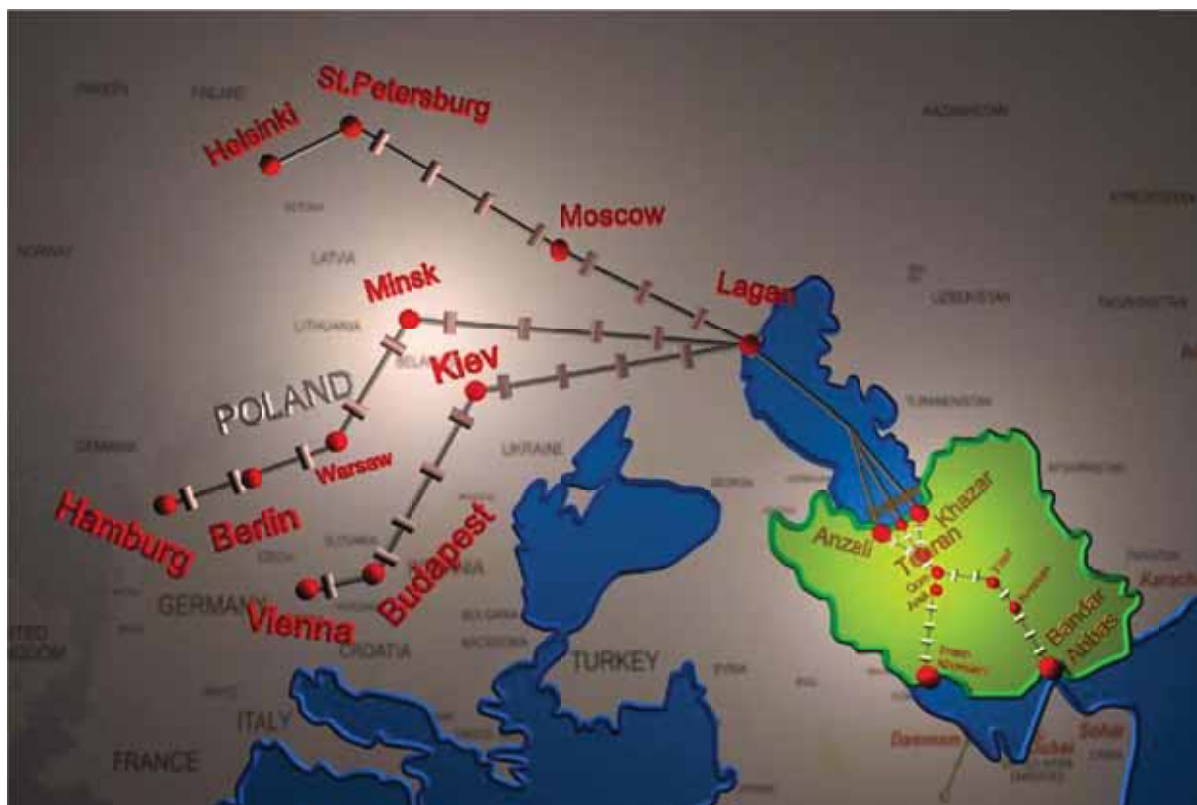


Figure1. Location of Anzali Port

### 2.2.3 Special Legal Incentives to Support the Free Trade Zone of Anzali

According to the stipulated law of the council of ministers, those practitioners working within the framework of the free trade zone, including Anzali port can enjoy the following privileges:

- Natural and legal persons who perform different economic activities in the zone are exempted from taxation of income and assets mentioned in the direct taxation act for fifteen years which is increased to twenty years from now on from the exploitation date set forth in the license
- Commercial foreign exchanges of the zones are excluded from import and export regulations after customs registration. The terms of export and import of goods and customs formalities will be passed within the realm of each region by the council of ministers
- Import of manufactured products to the free zone and to the rest of country is exempted from full or partial customs duties. The commercial interest is up to the level of value added tax in that region

- Import of products of which all or part of its raw materials were supplied in the country and manufactured in the free zone is exempted from full or atrial customs duties and commercial interest in relation to local raw materials.
- Entry and exit of capital and the resultant profit of economic activities is free in any zone.
- Legal capital and rights of foreign investors whose capital was approved by the council of ministers are under full support and guarantee of Foreign Investment Protection Act of Organization for Investment, Economic and Technical Assistance of Iran
- Import of machinery, raw materials and equipment to free industrial-commercial zones of Anzali is exempted from custom duties and commercial interest.
- Exemption from cargo transit duties from free zones to the output borders
- A visa is not required for foreign nationals
- Easy registration process for companies, industrial institutions, cultural institutions and intellectual property in relation to regulations specific to the free zones
- Facilitated land sell or lease for Iranians and providing long term lease for foreign nationals
- Pursuing specific regulations for monetary and banking operations to have flexible monetary and banking services

Table 1. Anzali port facilities and equipment

No	Description	Unit	Capacity (power)
1	Shore crane	2	100 tons
2	Shore crane	1	120 tons
3	Mobile crane	1	60 tons
4	Shore Cranes	3	60 tons
5	Loading /unloading cranes	5	36-54 tons
6	Reach stacker	2	45 tons
7	Transtainer	1	42 tons
8	Tug boat	3	1500 Hp
9	Pilot	2	-

### 3. Method

#### 3.1 Methodological Procedures

In this article, different effective factors including sampling plan and characteristics, data collection and various variable measurements have been explained. Data was collected involving the export problems perceived by the managers in related activities and export performance of these firms. The aim of this paper is to provide data on the export part of the Iranian export industry in Anzali free trade zones. Descriptive research design is used in the conduct of this research. This was done as a result of the above reasons. Research questions were well-organized and the focus is mainly on the cause and effect phenomena to reach the desired answers. A well-defined research question and accurate rules and procedures in the choice of a particular technique are what was explained in the research design. Both the SPSS 20.0 and LISREL 8.80 (Linear Structural Relations) statistical programs have been used for data analysis.

Participants attended from different industries and firm sizes. Firms were selected from micro, small and medium scales. The size distribution of firms that participated in the project were in direct relation with the features of export sectors in most countries which include small and medium size firms.

#### 3.2 Data Instrument Development

Like other studies, the export area was considered as the unit of analysis. According to Katsikeas et al. the researcher is in charge and ensures that the unit of analysis is well understood by the participant (Katsikeas, Leonidou, & Morgan, 2000). Similarly, to ensure consistency, the process progressed based on relevant literature

and consultation with the project supervisor before the design of the survey data collection instrument. However, it is declared in the studies of Diamantopoulos et al. that managerial, organizational and environmental factors are important attributes that affect venture and firm level analysis as well and are of utmost significance in the development of data collecting instruments (Diamantopoulos & Kakkos, 2007).

### *3.3 Sampling Procedures and Sample Size*

A list of the 320 export firms were considered for sampling frame from which it was drawn. A number of 100 exporters were selected and needed to answer the prepared questionnaires using random sampling. All of the contacted firms were located in the free trade zone of the Anzali port. It is, however, worth mentioning that location was not considered in the selection of these firms, though some production sites of the firms were located outside the free trade zone. Due to the nature of the study, we do not consider small sample sizes a limitation to the analysis and conclusion. The most significant factor was the issue raised and the direction the results gave for further research on the export sector's development process.

Participants were identified as corporate heads, managing directors or CEO's of the various firms. Out of 100 selected participant firms, 16 were no longer involved in export activities, 5 refused to participate due to the lack of time and the location of two of the firms could not be traced.

Questionnaires were completed by participants to elicit the relationship between the firms and their major export market. Given that, closed-ended questionnaires were emailed to the participants. Out of the whole administered questionnaires six were incomplete or had been completed by ineligible participants and a response rate of 71% was achieved. The obtained rate was adequate for the study as the prior rate of the same study on the export managers by Shoham was 40.1% (Shoham & Kropp, 1998).

## **4. Data Analysis and Results**

### *4.1 Target Markets*

The gathered responses indicated that their major export markets included the neighborhood countries, including Russia, Armenia, Turkmenistan, Azerbaijan, Kazakhstan, Turkey, Syria, Iraq and countries in the European Union (Ukraine, UK, France, Netherlands, Italy, Spain etc.), Asia (China, India, Japan) and the Persian Gulf. The average firm employing rate was four and the average turnover was eighty thousand US dollars.

### *4.2 Perceived Export Barriers*

Using SPSS version 20.0, Principal Component Analysis was applied to twenty indicators of perceived export barriers. As depicted, variables loaded adequately on three factors in the presence of many factors with coefficients greater than 0.3 and loadings with less than 0.3 were excluded from the analysis. The Kaiser measure of Sampling Adequacy was 0.691 well within the required range of 0.00 to 1.00 and exceeded the recommended value of 0.60 (Kaiser & Rice, 1974). Moreover, Bartlett's Test of Sphericity reached statistical significance and supported the factorability of the correlation matrix (Mumford, Ayub, & Bavington, 2005). Employing Varimax Rotation with Kaiser Normalization confirmed the relevance of the extracted factors with large factor loadings. The solution revealed the presence of a simple structure consisting of three factors. These factors were internal company barriers (comprising of two components of human resource barriers and financial barriers) and market barriers. These three factors explained 61.2% of the variance and made up about 37.3%, 13.7% and 10.2% of the variance respectively. Variables which did not load sufficiently on any factor were omitted. Other variables were also discarded as they did not contribute to the explanation of any related factors. To explain the nature of factor loading which provides a basis for our classification, the content analysis of the individual described further concerning theoretical evidence was presented in our research review.

As shown in Table 2, results of our factor analysis are as follows: the left hand column, namely human resource barrier, financial barrier and market barriers show the extracted factors. Both human resource and financial barriers are types of company barriers falling under internal barriers, while market barrier is a type of external barrier. Column two illustrates the variables under consideration and columns three, four and five indicate the factor loadings respectively.

Table 2. Component matrix of perceived export barriers

		1	2	3
Human Resources Barriers	Deficiency of foreign trade staff	0.795		
	Issues in hiring experienced staff to accomplish particular responsibilities	0.794		
	Deficiency of manager time period	0.691		
	Deficiency of company's responsibility regards to foreign trade	0.678	0.387	
Financial Barrier	Delay in receiving foreign payments		0.868	
	Deficiency of fiscal support		0.856	
	Deficiency of government familiarity with foreign trade support plans	0.472	0.607	
Market Barriers	Bureaucratic requirements			0.726
	Quality requirements of the foreign countries			0.661
	Non-tariff barriers in export market			0.605
Total Variance Explained		33.9%	14.9%	10.9%
Chronbachs Alpha		0.768	0.767	0.408
Eigenvalues		3.478	1.517	1.122

#### 4.2.1 Human Resources Barrier

The first dimension account for 33.9% of the total variation (Cronbach's  $\alpha = 0.768$ ). It comprises of four variables. These variables, as depicted by high positive loading consist of "Deficiency of foreign trade staff (0.795)", "Issues in hiring experienced staff to accomplish particular responsibilities (0.794)", "Deficiency of manager time period (0.691)" and "Deficiency of the company's responsibility with regards to foreign trade (0.678)". These variables are under the influence of qualified and committed human resource capacity. The human resource barriers are referred to as HR barrier. The human resource barriers are intrinsic to the firm. It refers to the insufficient organizational resources for the export market (Al-Hyari, Al-Weshah, & Alnsour, 2012; Haluk Köksal & Kettaneh, 2011). The success of every firm depends on the quality of its human resources.

Lack of trained and experienced human resources can cause difficulties in export marketing of the company. Ibeh argued that lack of qualified personnel is a major barrier to the internationalization (Ibeh, 2004). As reported in several articles, lack of management competency is a major barrier to export-marketing activities. Collectively, management attitudes, trained human resources, and commitment towards exports are important factors which enhance the export performance (Hultman, Katsikeas, & Robson, 2011; Tesfom & Lutz, 2006; Wagner, 2013).

Deficiency of foreign trade staff is a human resource capacity problem. Human resources were noted as a significant factor in the exporting activity of the firms studied. The feature of the firms studied was related to small and medium scale companies. These firms suffered from disorganization within their frameworks. A Few employed personnel were able to perform multiple tasks. Personnel were involved in other functions and were not fully concentrating on the export activity. In most of the firms studied the chief executives were the main thrust around whom all the exporting activities were performed (Jarreau & Poncet, 2012). As noted by Ibeh, deficiency of foreign trade staff for the exporting activity is a major barrier to the export activity (Ibeh, 2004).

In addition to deficiency of foreign trade staff suffers, the small size of most of these exporting firms also means that they cannot adequately employ staff for all the specialized departments and need to improvise by doubling most of the functions (Portugal-Perez & Wilson, 2012). Thus Deficiency of foreign trade staff is highlighted in the explanation of internal barriers. As noted, "Well-trained human resource, management attitude and commitment towards exports are amongst the features that improve the export performance" (Tesfom & Lutz,

2006). The studies show most of the firms suffer from the shortage of qualified personnel or organizations needed to perform certain tasks. Most of the employed staff did not have the requisite professional training to deal with the rigors of the export market. They had very limited knowledge about the entire export activity and lacked the required managerial expertise. Firms with high percentage of deficiency in this section reported on average a relatively high degree of importance to all other export barriers as well. Thus, the difficulty in hiring personnel is in complete accordance with the internal barriers.

#### 4.2.2 Financial Barrier

The second factor explaining 14.9% (Cronbach's  $\alpha = 0.767$ ) of the total variation consists of variables such as "Delay in receiving foreign payments" (0.868), "Deficiency of fiscal support" (0.856), and "Deficiency of government familiarity with foreign trade support plans" (0.607). As noted in the review literature, these variables impose financial resource constraint and adequately fall under company barriers, a type of internal barrier. Components under this factor are therefore clustered together as a single dimension namely export finance barriers and financial barriers. Out of the 71 studied firms, 37 (52.1%) declared that financial support was of very high importance, 35 (49.3%) firms also claimed that the Delay in receiving foreign payments constitutes a high importance factor. Subsequently, 41 (57.7%) firms announced that the Deficiency of government familiarity with foreign trade support plans constitutes a highly important factor. The firms studied had various problems in terms of finance. This consisted of the entire financial structure within which their operations are conducted. Mobilizing enough financial capital from the formal financial institutions for their activities was difficult due to the nature and mode of operation. To add to this is the fact that they have very limited knowledge of the government's export programs which are meant to promote SMEs operating in the export sectors. From this analysis, therefore we can conclude that to measure internal export barriers with reference to financial barriers the extracted components are sufficient.

#### 4.2.3 Market Barriers

The third dimension which explains an additional 10.9% (Cronbach's  $\alpha = 0.408$ ) of the total variations consists of the following variables; "bureaucratic requirements" (0.726), "quality requirements of the foreign countries" (0.661) and "non-tariff barriers in export market" (0.605). These variables have similar characteristics as they tend to be related to the firm externally. We termed these variables as export market barriers and market barriers. The firms' market barriers tend to have a widely varying nature. These include distinguished foreign consumer preferences, the imposition of tariff and non-tariff barrier, unfamiliar business protocols and practices, fierce competition and regulatory import controls by foreign governments. These were some of the problems noted by participants during our research.

The related articles revealed that a substantial number of export problems are due to market barriers. Variables such as bureaucratic requirements for exporting activity contributed to constraining factors of perceived export barriers and had a very high positive loading on the export barrier dimension. Firms studied declared that their exporting activities were constrained by the prevailing bureaucratic requirements in the export and import business. One firm claimed that they were unable to meet the demands of their foreign customers as a result of these bureaucratic requirements, which normally involve documentations by various overlapping departments and agencies and were about to lose the business and markets. Firms studied also stated that the meticulous quality requirements of foreign countries' standards-boards are another constraint to the export performance of their activities. This constraint had a high positive loading on the market factor (Morgan, Katsikeas, & Vorhies, 2012). Participants indicated that most of the problems are in relation with the technical adaptability-in and deficiency of information about market requirements as a result of poor quality control techniques, packaging and labeling requirements including poor product design (Freixanet, 2012; Ginevičius & Šimelytė, 2011; Haluk Köksal & Kettaneh, 2011). Accordingly, Wortzel and Deng said that exporting standardized products seemed to be easier for inexperienced exporters. Mostly they rely on the importers design and promotional skills (Wortzel & Deng, 1995). Consequently, bureaucratic requirements, quality requirement of foreign firms, and non-tariff barriers can be adequately classified as market barriers.

### 5. Conclusion

First and foremost the results are particularly important to firms operating in the Anzali free trade zone since improvement in the quality of human resources of a firm meant improved export performance. With a highly significant relationship between human resource barrier and export performance, we recommend that firms in this sector improve the quality of their human resources until they maximize massive benefits that ensue.

Secondly, the findings imply that in developing markets, firms lack the essential managerial obligations to export and in addition they lack required procedural adaptations to meet the demands of the foreign market. Export

firms usually have to manage an extensive number of activities in their operations on the international market. As the onus is on export managers to enhance their export performance objectives, the implications suggest that they need to develop significant managerial abilities if they want to pass and to adapt to the best possible strategy.

Further, apart from the factors analyzed, other elements may be involved in the relationship between observed export obstructions and export performance. These include accessibility of infrastructure, socio-economic and political environment and risk factors. In order to achieve a more in-depth understanding of the elements that determine the relationship between perceived export barriers and export performance interaction, future studies could incorporate these factors in the analysis. Furthermore, since there are different internationalization problems in several features such as sector, number of employees, turnover, management training, export experience, export expansion, export intensity, contribution of export to profit, mode of entry, level of internationalization and internationalization subsidies, these variables should be considered as possible moderators when developing studies in the field of international strategic marketing as they could promote specific studies in analyzing international strategic design and functioning.

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# A Descriptive Analysis on Entrepreneurial Intention among Engineering Technology Students

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Received: June 15, 2015 Accepted: July 13, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p286

URL: <http://dx.doi.org/10.5539/ass.v11n24p286>

## Abstract

The study of entrepreneurship and the factors that lead people to become entrepreneurs have developed into an interesting topic for research. The purpose of this study is to investigate the factors that determine the entrepreneurial intention among engineering technology students in Universiti Kuala Lumpur Malaysia France Institute. 63 engineering technology students were selected to be the study sample. Samples were drawn using the random sampling technique and a self administered survey. The data were analyzed using descriptive statistics. The study has an implication to the university and the government in developing and planning for entrepreneurship activities, program and education to increase the entrepreneurial intention among engineering technology students.

**Keyword:** entrepreneurship, entrepreneurial intention, engineering technology

## 1. Introduction

Entrepreneurship has been known to be the main catalyst for economic growth of a country. In the era of globalization, entrepreneurship and entrepreneurs have been declared to be highly important. A country's competitive force will be defined by the entrepreneurial spirit and innovativeness owned by its nation. The government has been giving a special attention to the development of entrepreneurs by providing a lot of programmes and strategies through various government agencies.

Therefore investigating the factors that determine the entrepreneurial intentions of students is a crucial issue in entrepreneurship research.

This study aimed to examine the factors that determined Universiti Kuala Lumpur Malaysia France Institute (UniKL MFI) students' entrepreneurial intention. The study focused on the personality factors and environmental factors. Personality factors include need for achievement (McClelland, 1976) and self-efficacy (Bandura, 1986), while environmental factors include factors such as social networks, capital and information access (Mazzarol et al., 1999). Similar studies have been conducted to investigate students' entrepreneurial intention in several countries (Kristiansen & Indarti, 2004; Ismail et al., 2009; Indarti et al., 2010).

## 2. Literature Review

Entrepreneurship has been an interesting topic discussed not only by the economists, sociologists but also psychologists. Various researches by those disciplines have enhanced and developed the theories of entrepreneurship. There are various definitions of entrepreneur and entrepreneurship.

Among the earliest is Schumpeter (1934), who defined entrepreneurship as a firm that operates and implements a combination of new activities such as product development, marketing, resources of raw materials, manufacturing approach and new organizational structure.

Entrepreneurship is a dynamic process of vision, change, and creation. It requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions. The essential ingredients include the willingness to take calculated risks – in term of time, equity, or career; the ability to formulate an effective venture team; the creative skills to marshal needed resources; the fundamental skill of building a solid

business plan; and finally, the vision to recognize opportunity where others see chaos, contradiction and confusion (Kuratko, 2009, p. 5).

Krueger and Carsrud (1993) defined entrepreneurial intention as individual commitment to start a new business. Bird and Jellinek (1988) defined entrepreneurial intention as the level of cognitive awareness which direct to set up a new business. Bird and Jellinek clarified that intention is a thinking situation consisting of concentration, experience and individual behavior towards a specific goal or certain behavior. It is important to understand the overall process of entrepreneurial intention because the intention is usually related in establishing a new business (Bird & Jellinek, 1988; Krueger & Carsrud, 1993).

The current research focus mainly on examining predictors of entrepreneurial intention from the demographic, personality and instrument readiness factors. Demographic factor include gender, age, education and past experience. Personality factor include need for achievement, locus of control and self-efficacy, and instrument readiness factor include access to capital, information and social network. Each factor will be discussed in detail in the next section.

### *2.1 Demography and Individual Background*

Many researchers have examined the impact of demographic factors on entrepreneurial behavior. In this study we measure the impact of age, gender, education and working experience as predictor towards the students' intention to start a new business. Findings from Sinha (1996) showed that the majority of successful entrepreneurs in India are relatively young. Reynolds et al., (2000) found that the most active entrepreneurs in Western countries are individuals aged 25-44 years. Next, Mazzarol et al. (1999) found that females were generally less likely to be founders of new business than males. Nwankwo et al. (2012) supported the findings by concluding that males engage in entrepreneurial activities more than the females because the orientation is that male possess personal characteristics that predispose them to aggressively act, assessments, risk taking and creative attitudes. On the other hand, a study by Lee (1997) found that female entrepreneurs have a higher level of need for achievement as an entrepreneur.

As stated by Krueger, Reilly and Carsrud (2000) entrepreneurship does not happen by chance as it can be developed and encouraged through the function of education. Entrepreneurship education is defined as the process of providing individuals with the concepts and skills to recognize opportunities that others have overlooked and to have the insight and self-esteem to act where others have hesitated. Sinha (1996) also revealed that educational background is important in nurturing entrepreneurial intention as well as business success. Previous studies indicated past experience is regarded as a predictor of entrepreneurial intention. Individual with working experience tends to have higher entrepreneurial intention compared to those without (Kolveried, 1996). Similarly, Zhang (2013) found that working or past experience will likely influence individual perception towards having the intention to become an entrepreneur.

### *2.2 Personality Factors*

In this study we focused on three factors related to personality as the core predictors of entrepreneurial intention: need for achievement (McClelland, 1976), locus of control (Kristiansen and Indarti, 2004) and self-efficacy (Bandura, 1997). McClelland (1976) introduced the concept of need for achievement (N-Ach) as one of psychological motivation. N-Ach refers to an individual's desire for significant accomplishment, mastering of skills, control, or high standards. McClelland called the individuals with high achievement needs as gamblers. They set challenging targets for themselves and they took the deliberate risk to achieve those set targets. Such individuals looked for innovative ways of performing job. They perceived achievement of goals as a reward, and valued it more than a financial reward. The characteristics listed in McClelland suit very well with the characteristics of entrepreneurs.

The concept of locus of control refers to a generalized belief that a person can or cannot control his or her own destiny. Gifford (2003), in a study explained that the influence of locus of control on perceptual alertness is the ability to see potential opportunities in the environment. He concluded a person who has an internal locus of control has greater amounts of perceptual alertness which leads to spontaneous learning. The last factor of self-efficacy is the measure of one's own ability to complete tasks and reach goals. Bandura (1997) defined self-efficacy as the subjective conviction that one is capable of action in a given situation, of coping with a task. Unlike other personality traits of entrepreneurship which are relatively static, self-efficacy is affected by contextual factors such as education and past-experiences (Holleabeck & Hall, 2004).

### *2.3 Instrumental Readiness*

Accesses to capital, information and social network are considered to have an impact on entrepreneurial

intention. These three factors are grouped as 'instrumental readiness'. Capital is the foundation in any new businesses. Capital access is every important for start-up companies. The entrepreneurs have a limited source of financing normally using their own savings or borrowed from family and friends as it is quite difficult for them to get the capital from external sources.

Access to information has been considered as one of the critical factors for the development and growth of a venture. Singh and Krishna (1994) stated that strong intention to access information is one of the main characters of Indian entrepreneurs. Information seeking can include searching for projects, opportunities, sources of financing, market study etc. Entrepreneurs not only interact with people in the organization but also with others outside the organization. The social network is a business tool that plays a significant role in the success of the entrepreneurs (Azahari et al., 2013) while networking is important for entrepreneurs to gain access to either tangible or intangible resources directly or indirectly for example to reduce risks and cost as well as to provide access to business ideas, capital and information.

### 3. Methodology

Table 1. Respondents' profile

		Program		Total
		MTM	WQI	
Gender	Male	29	31	60
	Female	3	0	3
Total		32	31	63

Using a survey method, 63 engineering technology students from Universiti Kuala Lumpur Malaysia France Institute were chosen as the respondents. There were 60 male students and 3 female students from two different programs. Out of 63 students, 32 were from Machine Technology and Maintenance (MTM) and 31 students were from Welding and Quality Inspection (WQI). The details of the respondents are shown in Table 1.

The data were collected by 63 items-instrument of the Entrepreneurial Intention (EI) which has eight constructs of past experience of 9 items, attitude towards entrepreneurship of 7 items, perceived and support barriers of 13 items, locus of control of 14 items, needs for achievement of 5 items, entrepreneurial intention of 9 items, instrumental readiness of 3 items and subjective norms of 3 items. A 5 point Likert scale was used in collecting the data ranging from "1" as "Strongly Disagree" to "5" as "Strongly Agree". The instrument is adapted based on Kristiansen and Indarti, (2004).

Reliability of the instrument was established through Cronbach alpha coefficient at the adequate value of 0.884. The lowest value was 0.639 for past experience and the highest was 0.781 for entrepreneurial intention. The values of the Cronbach alpha for all the constructs were more than acceptable value of 0.5 (Nunally, 1978) as shown in Table 2.

Table 2. Reliability of all constructs

Construct	Number of items	Cronbach's Alpha
Past experience	9	0.639
Attitude towards entrepreneurship	7	0.668
Locus of control	14	0.642
Needs for achievement	5	0.756
Entrepreneurial intention	9	0.781
Instrumental readiness	3	0.778

#### 4. Findings and Discussion

Table 3. Age of respondents

		Program		Total
		MTM	WQI	
Age	21-25 years	28	28	56
	26-30 years	4	3	7

Descriptive statistics and selected inferential statistics were used to analyse the data. Table 3 shows the age profile of the respondents and the entrepreneurship subjects taken by the respondents. Based on the total of 63 respondents, 56 age between 21-25 years old and only 7 age between 26-23 years old.

Table 4. Entrepreneurship subjects taken by respondents

	Program		Total
	MTM	WQI	
Techopreneurship only	11	0	11
Innovation Management only	14	17	31
Technopreneurship & Innovation Management	7	14	21
Total	32	31	63

UniKL has made it compulsory for all degree students to take two entrepreneurship subjects to graduate. The two subjects offered by the university are Technopreneurship and Innovation Management. Table 4 shows the number of respondents who have taken the entrepreneurship subjects. It was found that all respondents have taken at least one of the entrepreneurship subjects. 11 respondents have taken Technopreneurship, 31 have taken Innovation Management and 21 of the respondents have taken both subjects.

Table 5. Mean and standard deviation of all constructs

Construct	Mean	Std. Deviation
Past experience	1.7275	.13707
Locus of control	3.6043	.47046
Needs for achievement	3.9270	.62041
Entrepreneurial intention	3.7372	.62131
Instrumental readiness	3.3439	.87573

Based on Table 5, it was found that the highest mean was for needs for achievement and past experience has the lowest mean value. Needs for achievement recorded the highest mean because it is the drive factors to face challenges for success. High achievers will always have high intention to be the best. Past experience has the lowest mean value due to lack of working experience among these students.

A summary of responses to the main items of the questionnaire from MTM and WQI respondents is shown in Table 6.

Respondents moderately agreed that need for achievement is an important factor towards entrepreneurial intention. Both programs stated "to improve on past work performance" has the highest mean (MTM=4.38, WQI=4.06), followed by 'seek added responsibilities in job assigned' (MTM=4.28, WQI=4.00). The lowest mean is 'do well in difficult tasks relating to study and work' (MTM=4.03, WQI=3.61).

Table 6. Summary of responses

Variables	MTM N=32		WQI N=31	
	Mean	SD	Mean	SD
<b>Need for Achievement</b>				
I will do very well in difficult tasks relating to my study and my work.	4.03	0.93	3.61	0.92
I will try to improve on past work performance.	4.38	0.66	4.06	0.81
I will seek added responsibilities in the job assigned to me.	4.28	0.68	4.00	0.77
<b>Locus of Control</b>				
Persistence and hard work usually lead to success.	4.17	1.08	4.26	0.77
I do not really believe in luck	3.53	1.34	2.94	1.09
If I do not succeed on a task, I will give up.	2.59	1.39	2.48	1.36
<b>Self Efficacy</b>				
I have leadership skills to be an entrepreneur	3.94	0.91	3.68	1.01
I have the mental maturity to be an entrepreneur.	3.75	0.92	3.52	0.96
<b>Entrepreneurial Intention</b>				
I will choose a career as an entrepreneur.	3.5	0.95	3.16	1.16
I will choose to be an employee in a company/an organization.	3.47	1.14	3.48	1.12
I prefer to be an entrepreneur rather than to be an employee in a company.	3.84	0.99	3.52	1.21
<b>Instrumental Readiness</b>				
I have access to capital to start a new venture	3.22	1.10	3.10	0.94
I have good social networks that can be utilized when I decide to be an entrepreneur.	3.53	1.11	3.13	1.06
I have access to supporting information to start to be an entrepreneur.	3.69	1.06	3.39	1.02

The second factor is locus of control. Overall respondents agreed that persistence and hard work will be the main drive to success. The mean recorded by WQI (4.26) is higher than MTM (4.17). The result may be influenced by the nature of the program that required the students to work hard to be successful in their study. All respondents do not believe in luck and they do not easily give up.

On self-efficacy, the results indicate respondents moderately agreed that self-efficacy has the influence towards entrepreneurial intention. The highest mean is on the statement 'I have leadership skills to be an entrepreneur' (MTM=3.94, WQI=3.68) and followed by mental maturity (MTM=3.75, WQI=3.52).

Students are moderately inclined about venturing into their own business in the future with the mean results between 3.84 and 3.16. Entrepreneurial intentions among MTM respondents are higher than WQI respondents. Based on two statements; 'I prefer to be an entrepreneur rather than to be an employee in a company' and 'I will choose a career as an entrepreneur' both recorded higher mean on MTM respondents with 3.84 and 3.5 respectively. WQI respondents set higher mean (3.48) than MTM on choosing to be an employee in a company.

In the context of instruments readiness, results of the study shows that the respondents moderately agreed that instruments readiness encourage the entrepreneurial intention with mean between 3.69 and 3.10. The highest mean is access to information (MTM=3.69, WQI=3.39), followed by access to social network (MTM=3.53, WQI=3.13). The lowest mean is access to capital (MTM=3.22, WQI=3.10).

## 5. Conclusion

It has been accepted that the country is depending on the students as the source of entrepreneurship. This generation is the future leader, the future anchor of the country thus this study provides some significance. This research investigates the factors that contribute to entrepreneurial intention among UniKL MFI students. Primary data were collected by distributing questionnaires to 63 students from 2 different programs. The following conclusion can be drawn from the study. To begin with, this study has shown that generally the engineering technology students of UniKL MFI have the intention to become entrepreneurs after completion of their studies. For personality traits, the most important factor that drive entrepreneurial intention is need for achievement, followed by self-efficacy and lastly locus of control. The students agreed that for instrument readiness, access to information is the most important, followed by social network and access to capital. The results of this study indicate that entrepreneurial intention did exist among the UniKL MFI students but they must be equipped with necessary knowledge, skills and experience to start their own business. The university need to nurture the entrepreneurial intention by involving all students in entrepreneurship activities in the campus. Teaching and learning process in the classroom is not enough to encourage the students to choose entrepreneurship as a career choice. Hands on experience is more important to expose the students with the reality and reward of entrepreneurship.

The respondents of this study were limited to two programs from UniKL MFI. Thus the results will not generalize the entrepreneurial intention among engineering technology students in UniKL. Future research can be conducted to study the correlations among the variables and can be extended to all UniKL campuses.

## Acknowledgements

The authors would like to thank the Universiti Kuala Lumpur on Short Term Research Grant (STRG), the lecturers and respondents involved in the survey.

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# Studying the Relationship between Company Size, Earnings Management in Initial Public Offerings of Stock and Performance of the Companies Listed on Tehran Stock Exchange

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Received: June 21, 2015 Accepted: July 20, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p293

URL: <http://dx.doi.org/10.5539/ass.v11n24p293>

## Abstract

The aim of the present study is to explore the relationship between company size, earnings management in initial public offerings of stock and performance of companies listed on Tehran Stock Exchange during the time period of 2003 - 2012. In this study company size has been considered as an independent variable in order to explore and study its effect on earnings management and stock performance of companies in initial public offerings. In this study, in which panel data with fixed effects were used, results obtained from analyzing companies' data by using multivariate regression tests at 95% confidence level indicated that there is a reverse and significant relationship between company size and the extent of earnings management in initial public offerings (IPO). On the other hand, the results indicated that company size has a direct effect ( $p < 0.01$ ) on the relationship between earnings management in initial public offerings (IPO) and short- and long-term performance of stock price of the company.

**Keywords:** company size, initial public offerings, short-term performance of stock price, long-term performance of stock price

## 1. Introduction

At present, technology advancement and wide circumferential changes have caused an increasing acceleration in economy and due to increasing competition among institution, obtaining the desired income also has been restricted and the context for bankruptcy occurrence also has increased. Today, investors are seeking to estimate the cash flow of the institute they have invested in so that they can judge their stock value (Mousavi et al., 2010). Also, for estimating their stock value they need some information regarding cash flow. Predicting cash flow requires a number of economic decisions, especially that of investment (Chahine & Filatotchev, 2012). Among the studies conducted in the past, investment sensitivity to cash flow was studied (Hovakimian, 2010), however the mutual relationship between these two variables have never received any special attention from researchers. On the other hand, we cannot reject the significant effect of technology in terms of technology bubble in stock market on mutual relations of these two variables as well.

In advanced countries, public stock offerings and converting private ownership to that of public has been often welcomed so much due to its numerous advantages such as increased capital, more competition, tax exemptions, access to cheap financial resources, etc. In Iran, with regards to Article 44 of the constitution law and expansion of the range of privatization in our country, in recent years initial public offerings has received considerable attention and welcomed by companies. However, one of the issues that we are facing with in this area is stock valuation of initial public offerings (Hearn, 2011) that, due to its great importance, was studied in so many studies. Initial public offering, is the first public offering of the stock of a company that might have been active prior to the offering also but its activity has not been in the public range and therefore, due to information asymmetry, evaluation of its assets is based on insufficient and incomplete information. On the other hand, considering the fact that prices are dependent and subjected to multiple complex variables which are often intercorrelated, the issue of evaluation becomes more complex and problematic that in turn leads to occurrence of some abnormalities in initial public offerings (IPO) (Arab Mazar Yazdi, & Ghasemi, 2009). Among the most important existing abnormalities in initial public offerings (IPO), Price drop in long-term, undervaluation and hot

initial public offerings can be mentioned (Hagbin, 2008).

Financial reporting is considered as an important informational source for economic decision-makings that managers, investors, creditors and other users use them for solving their information needs. Since information is not made available to users equally, therefore, an information asymmetry is created between managers and investors (Hosseini & Salar, 2012). Information asymmetry is a situation in which managers have more undisclosed information in comparison to investors regarding operational and other aspects of the company in future (Hasas Yeganeh et al., 2009). This causes managers to have the opportunity and motivation for earnings management. IPO companies misuse the lack of investors' attention to temporary nature of increased earnings due to accruals and trade stock for more than its actual value. Considering the fact that managers have to return accruals in next periods, probability of reduced earnings of companies with weak performance in next periods increases. It is because for those companies with weak performance who get engage in earnings management, it is possible that the cash flows will not be sufficient for hiding the impact of returned accruals. Therefore, it is expected that detection of earnings management at the time of initial offering would cause external investors to reconsider Their perceptions of the quality of future earnings and modify their perceptions of these companies who engage in earnings management on the basis of accruals (Ebrahimi Kordlor, & Hassani Azar Dariani, 2006). Considering the above discussions, the main problem of this study is to explore the relationship between company size, earnings management in stock's initial public offerings and performance of the companies listed on Tehran Stock Exchange that for this purpose in the following the research method is presents and next research findings and conclusion are presented.

### 1.1 Research Hypotheses and Related Models

1<sup>st</sup> hypothesis: there is a significant relationship between company size and the level of earnings management in initial public offerings (IPO).

$$\text{Earnings management}_{i,t} = \beta_0 + \beta_1 \text{Ln}(\text{size})_{i,t} + \beta_2 \text{Board Ownership}_{i,t} + \beta_3 \text{Auditor reputation}_{i,t} + \beta_4 \text{EPS}_{i,t} + \beta_5 \text{Debt-ratio}_{i,t} + \beta_6 \text{Loss-dummy}_{i,t} + \beta_7 \text{Current Asset}_{i,t} + \beta_8 \text{Age}_{i,t} + \epsilon_{i,t}$$

2<sup>nd</sup> hypothesis: company size has an effect on the extent to which earnings management level in initial public offerings (IPO) affects short-term performance of stock price of a company.

$$\text{CAR}(0,5)_{i,t} = \beta_0 + \beta_1 \text{Earnings management}_{i,t} + \beta_2 \text{Ln}(\text{size})_{i,t} + \beta_3 \text{Board Ownership}_{i,t} + \beta_4 \text{Auditor reputation}_{i,t} + \beta_5 \text{EPS}_{i,t} + \epsilon_{i,t}$$

3<sup>rd</sup> hypothesis: company size has an effect on the extent to which earnings management in initial public offerings (IPO) affects long-term performance of the stock price of a company .

$$\text{CAR}(0,24)_{i,t} = \beta_0 + \beta_1 \text{Earnings management}_{i,t} + \beta_2 \text{Ln}(\text{size})_{i,t} + \beta_3 \text{Board Ownership}_{i,t} + \beta_4 \text{Auditor reputation}_{i,t} + \beta_5 \text{EPS}_{i,t} + \epsilon_{i,t}$$

## 2. Definition of the Variables

*Earnings management (Earning Management<sub>i,t</sub>)*: The extent of earnings management in initial public offerings that has been calculated through Discretionary accruals with the use of Dechow et al., (1995) method which known as "modified model of Jones" and is presented as the following:

$$- TA = NI - CFO$$

Where, TA is total accruals, CFO is cash obtained from operations and NI is net profit. Then, the following model of total accruals against change in sales and also final cost of the period's fixed assets has been fitted:

$$- TA_{it} = \alpha \frac{1}{A_{it-1}} + \beta \frac{\Delta REV_{it}}{A_{it-1}} + \gamma \frac{PPE_{it}}{A_{it-1}} + \epsilon_{it}$$

Where,  $TA_{it}$ , is total accruals in year t for i company,  $\Delta REV_{it}$  is total incomes of the year t minus the total incomes of the previous year for the company i,  $PPE_{it}$  is the amount of gross fixed assets in year t,  $A_{it-1}$  is total assets at the end of the previous years for the company i,  $\alpha$ ,  $\beta$  and  $\gamma$  coefficients are the coefficients of Jones' model and  $\epsilon_{it}$  is the model's error in the year t for company i.

Non-discretionary accruals (NDAC) is also calculated from the following relationship:

$$- NDAC_{it} = \alpha \frac{1}{A_{it-1}} + \beta \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} + \gamma \frac{PPE_{it}}{A_{it-1}} + \epsilon_{it}$$

Where,  $\Delta REC_{it}$  is receivables for the year t minus receivables for the year t-1 for company i and,  $\alpha$ ,  $\beta$  and

$\gamma$  coefficients are also calculated through least square roots method in the following model. Discretionary accruals (DAC) also are calculated with the use of the following model:

$$- DAC_{it} = TAC_{it} - NDAC_{it}$$

*Cumulative abnormal short-term return (CAR(0,5)<sub>i,t</sub>)*: In order to calculate this variable, abnormal cumulative return of 5 days after the date of initial public offering was calculated.

*Cumulative abnormal long-term return (CAR(0,5)<sub>i,t</sub>)*: In order to calculate this variable, abnormal cumulative return from the date of stock's initial public offering to 24 months after the data of initial public offering has been calculated.

*Company size (Ln(Size)<sub>i,t</sub>)*: Which is equal to natural logarithm of total sum of assets.

*Earnings management (Earning Management<sub>i,t</sub>)*: Extent of earnings management in initial public offerings that in this study has been calculated from Discretionary accruals with the use of Dechow et al. (1995) method which is known as "modified model of Jones".

*Ownership percentage of board of directors members (Board Ownership<sub>i,t</sub>)*: It is calculated as the percentage of stock ownership of board of directors to total stock of a company.

*Auditor reputation (Auditor reputation<sub>i,t</sub>)*: It is a dummy variable, if audit organization is the company's auditor a value of 1 will be allocated to this variable and otherwise, a value of 0 will be allocated to it.

*Earnings per share (EPS<sub>i,t</sub>)*: Earnings per share which is obtained from the ratio of net earnings to the number of stocks of a company.

*Ratio of long-term debt to total sum of assets (Debt Ratio<sub>i,t</sub>)*: It is calculated From dividing long-term debts of a company to total sum of its assets.

*Loss in the previous financial year of the initial public offering (Loss Dummy<sub>i,t</sub>)*: It is a dummy variable, that if the company has been in loss in the financial year before initial public offering a value of 1 is allocated to it and otherwise, a value of 0 will be allocated.

*Ratio of current assets to total assets (Current Asset<sub>i,t</sub>)*: Is calculated by dividing current assets to total assets.

*Company age (Age<sub>i,t</sub>)*: Refers to the difference in establishment date of the company and the date of its initial public offering.

### 3. Research Method

Research method of the present study in terms of nature and content is of correlation type which is analyzing the correlation relationship by using secondary extracted data from financial statements of companies listed on Tehran Stock Exchange. This study was conducted in an inductive - deductive reasoning framework. The reason of using a correlation method is to detect correlation relations between variables. Correlation study is one the sub-types of descriptive research. In the present study first the correlation between research variables has been tests and in case of existence of correlation among the research variables, multiple -regression models have been estimated. On the other hand, the present study is an Ex-Post Facto study (semi-experimental). It means that it is conducted on the basis of past and historical data analysis (financial statements of companies). Also, this study is a bibliographical and analytical - causative study and is also based on panel data analysis. Therefore, the present research in terms of aim and objective is an applied study and in terms of method is a descriptive - correlation study.

#### 3.1 Research Population and Sample

The actual required data of this article were collected from actual data of companies listed in Tehran Stock Exchange that during the time span from march 20, 2002 to 19 march 2013, for the first time have engaged in public offering their stock, on the condition that:

1. They are not among Investment firms and financial intermediaries;
2. Their fiscal year ends on 19th march every year.

The sectors of industry studied in this research include automotive and parts manufacturing, medicine, manifesting of metal products, manufacturing of Other non-metallic mineral products, cement, Lime , gypsum, petroleum coke products and nuclear fuel, basic metals, sugar, ceramic and tile, rubber and plastics, equipment and machinery, chemical products, food products and beverages except sugar, textiles, etc .

### 3.2 Data Collection Method and Tools

In this study, for the purpose of collecting the required data for calculation of variables, "Rah Avard Novin" and "Tadbir Pardaz" databases have been used. In those cases in which the existing data in these databases have been incomplete, the manual archives available in the library of Stock Exchange Organization and internet site of research, development of Islamic Studies of Stock Exchange Organization (Note 1) have been used. In general, in this article the bibliographical method has been used for data collection. In this way that for preparing literature review and theoretical principles of the research the available documents and theses in libraries as well as available articles on websites have been used.

### 4. Data Analysis and Results

Table 1 indicates the descriptive statistics of the research variables during the time span of this study. Descriptive statistics of research variables that have been measured with the use of companies data during the time span of this study (2002 to 2013) include average, mean, standard deviation, minimum and maximum.

Table 1. Descriptive statistics of research variables

Variables description		Average	Mean	Standard deviation	Min.	Max.
Cumulated short-term abnormal return	CAR	0.2866	0.2946	0.1028	0.1053	0.4813
Earnings management	Earnings management	0.1396	0.1430	0.1021	-0.0233	0.2867
Ownership percentage of the members of board of directors	Board Ownership	0.4722	0.4839	0.2172	0.1295	0.7834
Auditor reputation	Auditor reputation	0.2182	0.0000	0.4168	0.0000	1.0000
Long-term debt ratio to total sum of assets	Debt ratio	0.1367	0.0950	0.1606	0.0000	0.7556
Dummy variable of loss	Loss dummy	0.2182	0.0000	0.4168	0.0000	1.0000
Ratio of current assets to total assets	Current Asset	0.5711	0.5243	0.2413	0.0986	0.9949
Company age (year)	Age	17.1000	18.0000	6.1001	7.0000	28.0000
Company size	Ln (size)	11.7080	11.7770	0.8770	10.2018	13.8447

In the following for testing reliability, Im, Pesaran, Shin (1997) and Levin & Lin (1992) tests were used, the results of which are presented in Table 2 and 3.

Table 2. Im, Pesaran, Shin test (IPS)

Variable	CAR	Earnings management	Board Ownership	Auditor reputation	Debt ratio	Loss dummy	Current Asset	Age	Ln(size)
W-stat	-25.2296	-3.09465	-3.37952	-19.4322	-18.8967	17.7146	-27.0077	34.8471	-63.1932
p-value	.0000	0.0010	0.0004	.0000	.0000	0.0001	.000	0.0003	0.0072

Table 3. Levin and Lin test (LL)

Variable	CAR	Earnings management	Board Ownership	Auditor reputation	Debt ratio	Loss dummy	Current Asset	Age	Ln(size)
T-stat	11.5684-	3.9119-	12.4227-	-19.1026	13.0826-	16.026-	19.308-	9.28544	26.2495-
p-value	.000	.0000	0.0169	.0000	0.0010	0.0016	0.0018	1.0000	.0000

Considering the results of IPS test (Table 3), since the value of p is smaller than 0.05 for all the variables, therefore, these research variables during the study period are at a reliable level. Considering the results of LL test (Table 2), since p-value is smaller than 0.05, all variables are reliable during the study period. Therefore, results of IPS and LL tests indicate that the average and variance of the variables were fixed throughout the time and the variables' covariance is as well fixed in different years. Therefore, using these variables in the model will not create Spurious regression.

Also, considering the existing research literature and also the nature of research hypotheses in this article panel data have been used. For determining the proper model (panel with fixed or random effect) for testing hypotheses Chaw and Hausman tests have been used, the results of which are presented in Table 4 and 5:

Table 4. Chaw test

Regression model	f-value	Probability	Result
1 <sup>st</sup> model	264.621**	.0000	Rejection of null hypothesis - panel model
2 <sup>nd</sup> model	1.076	0.345	Conformation of null hypothesis - pooled model
3 <sup>rd</sup> model	19.183	0.0031	Rejection of null hypothesis - panel model

Regarding the 1<sup>st</sup> and 3<sup>rd</sup> models, considering the significance level, results of Chaw test indicate that null hypothesis (pooled model) is not confirmed. In other words, there are Individual or group effects that panel data should be used for research regression model estimation that in the following section for determining the type of panel data model (with fixed or random effects) Hausman test was used. However, regarding the second model, results of Chaw test indicate that null hypothesis (pooled model) is confirmed. In other words, there are no individual or group effects present and therefore pooled data method should be used for research regression model estimation, hence, there is no need to perform Hausman test.

After specifying that intercept is not the same for different years, the method used in model estimation (fixed or random effects) should be determined. Therefore, Hausman test was used. Hausman test tests null hypothesis indicating to Consistency of estimates of random effects against its opposite hypothesis indicating to inconsistency of estimates of random effects.

Table 5. Hausman test

Regression model	$\chi^2$ value	Probability	Test result
1 <sup>st</sup> model	156.071**	0.0008	Rejection of null hypothesis - panel model with fixed effects
3 <sup>rd</sup> model	69.321**	0.0039	Rejection of null hypothesis - panel model with fixed effects

\*\*<05

Results related to Hausman test for 1st and 3d models have been respectively shown in table 4. Results indicate that  $\chi^2$  value in Hausman test for the first and third models is equal to 156,107 and 69.321, respectively, which is significant at 99% confidence level which in turn indicates that the opposite hypothesis is confirmed. Hence, considering Hausman test fitting first and third regression models of this study would be appropriate with the use of panel data model with fixed effects. In the following, research hypotheses are tested:

H1: There is a significant relationship between company size and the extent of earnings management in initial public offerings (IPO).

After testing regression assumptions and assuring that these assumptions are met, results obtained from the above regression equation fit for manufacturing companies are presented in Table 6. F-value (11.276) also indicate that the whole regression model is significant. Coefficient of determination and adjusted coefficient of determination of the above model are 652% and 50.7%, respectively. Therefore, it can be concluded that in the mentioned regression equation, only about 50.7% of the changes in earnings management of companies under study are explained by independent and control variables.

As per table 6, significance level of the variable of company size (Ln(size)) is equal to 0.043, which is smaller than the specified significance level in this study (5%); also absolute value of t-value related to this variable (2.588) is larger than the obtained t-value from the table with the same freedom degree. Therefore, at 95% confidence level, the obtained coefficient for the above variable in the above mentioned regression model is significant and hence, 1<sup>st</sup> hypothesis indicating that there is a significant relationship between company size and extent of earnings management in initial public offerings (IPO) is confirmed.

H2: Company size has an effect on the relationship between earnings management in initial public offerings (IPO) and long-term performance of stock price of the company

Table 6. Results obtained from regression equation fit

Variable name	Coefficient of the variable	Coefficient value	t-value	Sig. level
Constant value	$\beta_0$	1/522	2.873	0.004
Ln(size)	$\beta_1$	-0.843	-2.588	0.043
Board Ownership	$\beta_2$	1.211	3.158	0.018
Auditor reputation	$\beta_3$	-0.677	-3.838	0.001
EPS	$\beta_4$	-0.911	-2.987	0.0037
Debt ratio	$\beta_5$	1.241	2.847	0.026
Loss dummy	$\beta_6$	0.865	5.073	0.000
Current Asset	$\beta_7$	-0.441	-2.847	0.023
Age	$\beta_8$	-1.301	-2.632	0.037
Coefficient of determination	0.562	f-value		11.276
Adjusted Coefficient of determination	0.507	significance of(P-Value)		.000
		Durbin - Watson value		1.925

After testing regression assumptions and assuring that they are met, results obtained from the above regression equation fit for manufacturing firms have been presented in Table 7. F-value is equal to 17.672 which indicates that total regression model is significant. Coefficient of determination and adjusted coefficient of determination of the above model are equal to 72.6% and 69.8%, respectively. Therefore, it can be concluded that in the mentioned regression equation, only about 69.8% of the changes in long-term performance of the companies under study are explained by independent and control variables. Significance level of the variable of interactive effect of earnings management and company size (0.029) is smaller than significance level considered in the present study (5%); also absolute value of t-value related to this variable (2.987) is larger than the obtained t-value from the table with the same freedom degree. Therefore, H<sub>0</sub> hypothesis is rejected at confidence level of 95% and H<sub>1</sub> hypothesis indicating that interactive effect of earnings management and company size is significant is confirmed. Therefore, 2<sup>nd</sup> hypothesis indicating that company size has an effect on the relationship between earnings management in initial public offerings (IPO) and long -term performance of stock price of the company is confirmed.

Table 7. Results obtained from regression model fit

Variable name	Variable's coefficient	Coefficient value	t-value	Sig. level
Constant value	$\beta_0$	0.961	3.091	0.006
Earnings management	$\beta_1$	-0.736	-3.067	0.011
Earnings management i,t $\times$ Ln(size) i,t	$\beta_2$	0.298	2.298	0.029
Board Ownership	$\beta_3$	-0.818	-2.458	0.044
Auditor reputation	$\beta_4$	1.067	2.847	0.014
EPS	$\beta_5$	1.641	2.873	0.004
Coefficient of determination	0.726	f-value		17.672
Adjusted Coefficient of determination	0.698	significance of(P-Value)		.000
		Durbin - Watson value		1.781

H<sub>3</sub>: Company size is effective on the relationship between earnings management in initial public offerings (IPO) and short-term performance of stock price of the company.

Results obtained from the above regression equation fit for manufacturing firms were presented in table 8. Value of f-value (27.746) also indicate that the total regression model is significant. As it has been shown in the lower section of table 8, coefficient of determination and adjusted coefficient of determination of the above model are respectively equal to 75.7% and 72.8%. Therefore, it can be concluded that, in the mentioned regression equation, only 72.8% of the changes in short-term performance of companies under study are explained by independent and control variables. In this table, positive (negative) values in the column related to coefficient value indicate to the direct (reverse) effect of each of the variables on short-term performance of companies under study.

As it is evident from Table 8, the significance level of the interactive variable of earnings management and company size (0.0082) is smaller than the considered significance level in this study (5%); also absolute t-value related to this variables (3.838) is larger than the obtained t-value from the table with the same freedom degree. Therefore, H<sub>0</sub> hypothesis at 95% confidence level is rejected and H<sub>1</sub> hypothesis indicating that the interactive

effect of earnings management and company size is significant is confirmed. Hence, 3<sup>rd</sup> hypothesis indicating that company size is effective on the relationship between earnings management in initial public offerings (IPO) and short-term performance of company's stock price is conformed.

Table 8. Results obtained from regression equation fit

Variable name	Variable's coefficient	Coefficient value	t-value	Sig. level
Constant value	$\beta_0$	3.641	2.873	0.004
Earnings management	$\beta_1$	-1.209	-5.073	0.0001
Earnings management $i,t \times \ln(\text{size})$	$\beta_2$	0.567	3.838	0.0082
Board Ownership	$\beta_3$	-1.098	-2.388	0.002
Auditor reputation	$\beta_4$	0.615	-2.141	0.003
EPS	$\beta_5$	1.311	2.601	0.0037
Coefficient of determination	0.757	f-value	27.746	
Adjusted Coefficient of determination	0.728	significance of(P-Value)	0.000	
		Durbin - Watson value	2.231	

## 5. Conclusion and Recommendations

Regarding the performance of small and medium sized companies which have been emerged newly in business field which are accompanied by special complexities, no accepted measurement criteria have been established so far (Aminul et al., 2010), while various financial indicators were used for evaluating the performance of small companies such as sales volume, profitability level, number of employees and customers and increased market share (Yadollahi et al., 2009; Nikbakht et al., 2010).

For data collection, there are some special operational limitations with regards to these traditional criteria that among them we can mention confidentiality of financial information and lack of interest of small businesses' owners to disclose such information. In addition, any kind of data related to profitability level also should be handled and used with caution, because this kind of information can be affected by some accounting actions such as minimization of income tax of entrepreneurs (Dechow et al., 1995). This is more clear in small businesses in which sales and assets indicators show a growth in the first years of their activities which is accompanied by a high level of error. Considering these reasons and also based on multiple other evidences, it can be said that the use of subjective criteria for measuring performance in studies related to small and medium sized businesses are developing and becoming popular (Jain, 2007; Nonahal Nahr et al., 2013).

The ability of a small company for growth and development depends on the performance of its key managerial activities. These activities can be divided into financial management, marketing, human resources and operational areas (Kotey & Meredith, 1997) and it can be said that there are various factors that can be related to the performance of companies. The present study sought to study the relationship between company size, earnings management in initial public offerings of stock and performance of companies listed on Tehran Stock Exchange. Results of this study indicate that there is a reverse and significant relationship between company size and the extent of earnings management in initial public offerings. On the other hand, results indicate that company size has a direct effect on earning management in initial public offerings and short- and long-term performance of company's stock price. Based on the obtained results of this study a number of recommendations are presented below:

1. Legislative bodies including Stock Exchange Organization, Iran's Association of Investment Institutions, Brokers' Association, brokers and investment companies, all the activists in capital market and ... are recommended to pay more attention to relationships between company size and extent of earnings management in stock's initial public offerings which has been shown in the present study.
2. Activists in the capital market, decision makers, financial analysts and potential and actual investors in Stock Exchange in their analysis of investment projects in financial assets and securities are recommended to pay special attention to the relationships between company size and extent of earnings management in initial public offerings of stock. Also, the effect of company size on the relationship between earnings management and short-term and long-term performance of a company's stock price which has been shown in this study should be emphasized because consideration of these important factors leads to optimized selection of investment portfolio with minimum risk and maximum return. Finally, it increases the transparency of decision making environment and the obtained results.

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## Note

Note 1. [www.rdis.ir](http://www.rdis.ir)

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# Malaysian Land Administration Domain Model Country Profile

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Received: June 21, 2015 Accepted: July 24, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p301

URL: <http://dx.doi.org/10.5539/ass.v11n24p301>

## Abstract

Land administration is a process of recording and disseminating information about the association between people and land. To administer land matters in Malaysia, the Department of Surveying and Mapping Malaysia uses *eKadaster* and Land Office has *eTanah* which are different in e-Systems. Currently, Malaysia does not have a standard model for land administration and standardisation is one of the important aspects in a land administration process. This paper proposed a country profile model using international standards based on Land Administration Domain Model. This paper also attempted to generate strata object model via Land Administration Domain Model which would be useful for Malaysia and countries with similar land administration systems. In this proposed model, spatial data modelling using secondary data from the aforementioned two land administration units in Malaysia and Unified Modelling Language application were used to develop the conceptual and the technical models. The developed model was evaluated and verified by the Department of Surveying and Mapping Malaysia and Land Office. These units agreed and were satisfied because the model fits their requirements by being more comprehensive as it included three-dimensional lots and two-dimensional topology. In addition, the proposed model facilitated the management of spatial and non-spatial objects such as customary areas, reserved lands, lots, strata objects, utilities and the related attributes to be better managed by the two units. The development of Malaysian Land Administration Domain Model country profile is unique because it can support a very wide range of spatial units. Furthermore, the model was developed to help establish a national Spatial Data Infrastructure. To conclude, the developed Malaysian Land Administration Domain Model is a standardised model that could be used for local and international exchange of information concerning land administration matters.

**Keywords:** LADM, country profile, cadastre, registration system, land administration

## 1. Introduction

According to ISO 19152 (2012), Land Administration Domain Model (LADM) is an important model to create “standardized information services in an international context, where land administration domain semantics have to be shared between regions, or countries, in order to enable necessary translations”. There are many different reasons to adopt International Organization for Standardization (ISO 19152), LADM, such as allows meaningful exchange of data (within country, Spatial Data Infrastructure (SDI) setting, but also between countries); covers complete land administration spectrum: survey, cadastral maps, rights, restrictions, responsibilities, mortgages, persons (individuals of groups); allows integrated 2D and 3D representation of spatial units. Literature shows that many countries propose their own profile based on LADM such as Portugal, Korea, Japan, The Netherlands, Australia/Queensland, Cyprus and others. Malaysia is one of the potential candidates towards LADM-based country profile. This paper describes the conceptual model of the Land Administration Domain Model (LADM), in particular the parties, the rights, restrictions and responsibilities (*RRRs*) and the relationship with spatial data in Cadastral. This paper aims at presenting the concepts of LADM for the Malaysian LADM country profile to harmonize 2D and 3D land registration in Malaysia.

## 2. Objective

The objective of this research is to propose a country profile for 2D and 3D cadastral registration based on LADM specification for Malaysia.

### 3. Land Administration Domain Model (LADM)

#### 3.1 Overview of the LADM

The product of the LADM is a conceptual model. The LADM consists of three main packages and one sub-package. A group of classes, with a particular class of cohesion is called a package and it has its own namespace. The maintenance of different organizations is facilitated by packages. The comprehensive model can be performed through a shared set of geo-information systems at different locations, which supports data maintenance and provides elements of the model. The model can also be performed by one or more maintenance organizations, operating at local, regional or national level. The maintenance organizations may be different, with different approaches but still can keep the same standard (ISO 19152, 2012).

The overview of packages with their classes is illustrated in Figure 1. Party Package, Administrative Package and Spatial Unit Package are the three main packages. Meanwhile, Surveying and Representation is a sub-package of the Spatial Unit Package. The LADM classes are prefixed by *LA* (i.e. Land Administration) to differentiate them from other classes in the ISO geographic information series of standards.

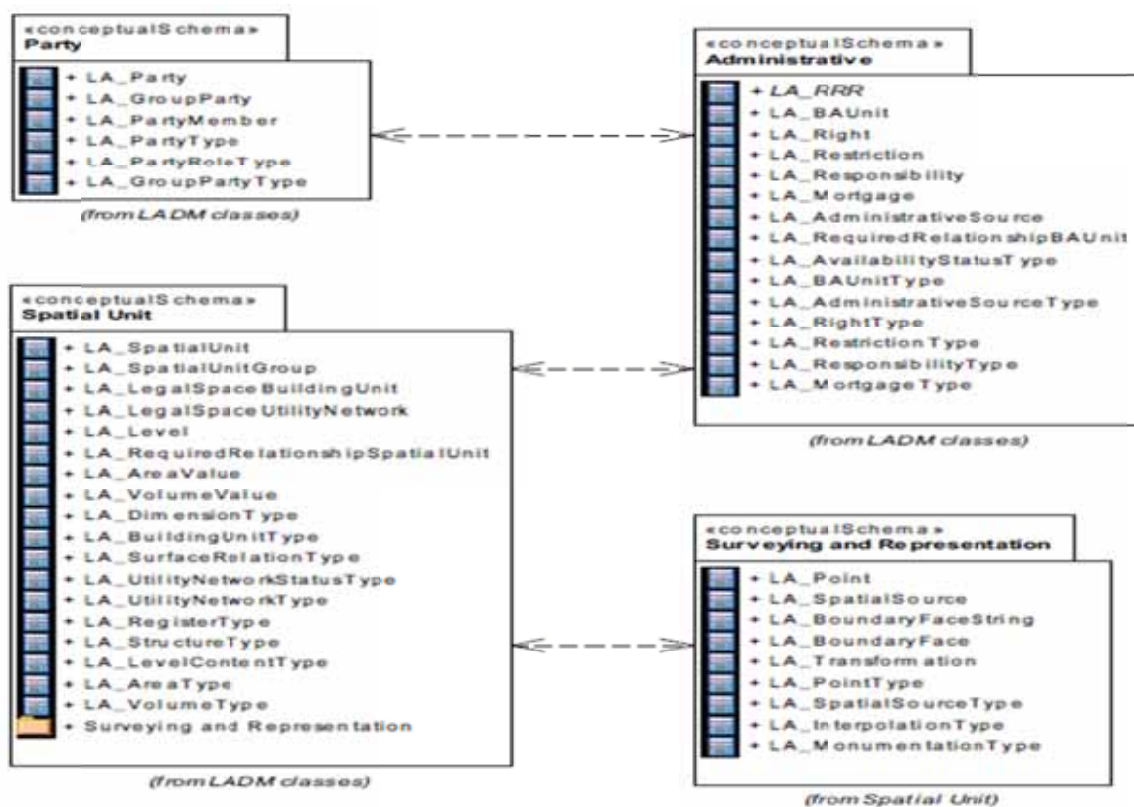


Figure 1. The LADM overview packages with their classes (ISO 19152, 2012)

The beginning of the development of LADM was at the FIG Congress held in Washington DC in April 2002. In September 2002 at the meeting of the Open GeoSpatial Consortium (OGC) in Noordwijk, 1<sup>st</sup> version of LADM was presented. After that, Van Oosterom and Lemmen (2003) presented 2<sup>nd</sup> version of the LADM in a workshop on Cadastral Data Modelling at the ITC in Enschede. During Digital Earth in Brno, 3<sup>rd</sup> version of the LADM was presented (M.P.J.M. Lemmen & C.H.J. Lemmen, 2003) and was called the Core Cadastral Domain Model (CCDM).

Federation of International Surveyors (FIG) submitted a proposal to develop an International Standard for the Land Administration domain to the ISO/TC211 on Geographic Information in 2008 and the proposal gained a positive vote from the TC211 member countries and started to work on the standard development. On November 2012, it was finally accepted as an ISO standard and formally published by ISO on the 1<sup>st</sup> December 2012.

### 3.2 Packages of LADM

The main packages of LADM are Party, Administrative and Spatial Unit. The sub-package is the Surveying and Representation. The basic class *LA\_Party* is the main class of the Party package. A party can be a normal person, juridical person or a group of persons that can be identified in a transaction of rights relative to a Basic Administrative Unit (BAUnit). *LA\_GroupParty* is a specialization of *LA\_Party*. A party may participate in a group of party and a group of party may be a party. There is an optional association class called *LA\_PartyMember* between *LA\_Party* and *LA\_GroupParty* (Figure 2).

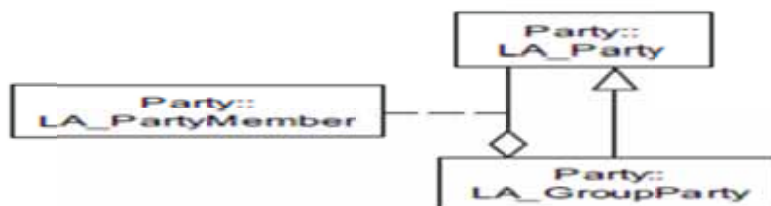


Figure 2. Party package (ISO 19152, 2012)

The Administrative package describes the administrative part of a land administration system and consists of two main classes which are *RRR* and *BAUnit* (Figure 3). The *RRR* class is an abstract class of Rights, Restrictions and Responsibilities (i.e. formal or informal entitlements). Special restriction of the ownership right is called *LA\_Mortgage*. This conveys the property by a debtor to a creditor. The conveyance of a property serve as a security for a financial loan, usually the property is refunded to the debtor on full reimbursement of the debt.

The *BAUnit* is defined as numerous spatial units, belonging to a party, having the same right. The right shall be homogeneous to the whole *BAUnit*. Basically, all rights, restrictions and responsibilities come from an administrative source (i.e. *LA\_AdministrativeSource*). Class *LA\_RequiredRelationshipBAUnit* allows for creating instances of relationships between *BAUnits*. Relationships can be legal, temporal, or of a spatial nature.

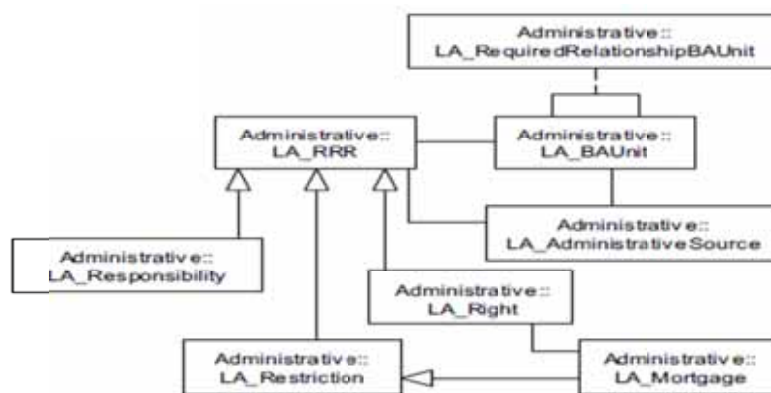


Figure 3. Administrative package (ISO 19152, 2012)

The Spatial Unit package presents the physical objects of a land administration system. The basic class *LA\_SpatialUnit* is the main class of the Spatial Unit package. *LA\_SpatialUnit* is also known as *LA\_Parcel* (Figure 4). The spatial unit class corresponds to the boundaries of a single area or volume of land or water. It is used to support the creation and management of the *BAUnit* and can be specialized as a *LA\_LegalSpaceUtilityNetwork* and *LA\_LegalSpaceBuildingUnit*. Meanwhile, the spatial unit group class forms a collection of spatial units and the *LA\_Level* class regroups the spatial unit with the same topologic, geometric, and thematic coherence.

The required relationships are explicit spatial relationships between spatial units (i.e. *LA\_RequiredRelationshipSpatialUnit*). Sometimes there is a need for these explicit spatial relationship if the spatial units inaccurate enough to give consistent results and applying geospatial overlaying techniques.

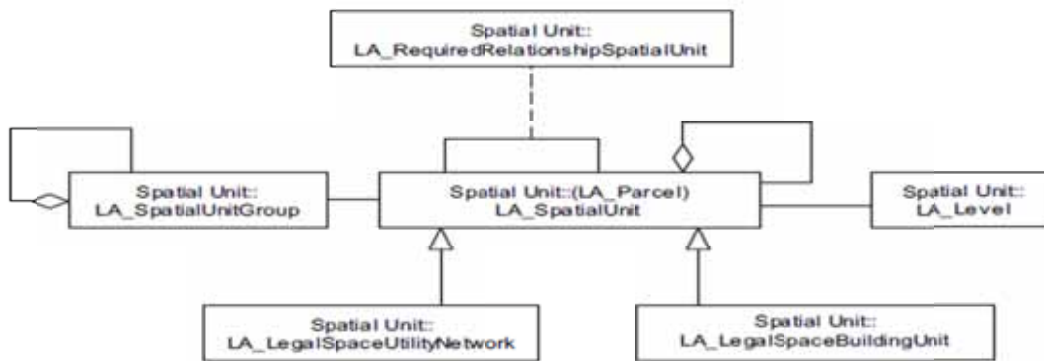


Figure 4. Spatial Unit package (ISO 19152, 2012)

Spatial representation can be described in the Surveying and Representation sub-package (Figure 5). A set of lines which represents 2D boundaries of the spatial units is termed as *LA\_BoundaryFaceString*. The *LA\_BoundaryFace* class is used to show 3D spatial units. For example, to form a closed or bounded volume in height and depth. The spatial representation of the spatial units could be referred by using *LA\_Point* class. *LA\_Point* class can be used to define *LA\_BoundaryFaceString* or *LA\_BoundaryFace* classes. *LA\_Point* also is associated to *LA\_SpatialSource*. The class *LA\_SpatialSource* relates to survey documentation, which contains all documents linked to a survey.

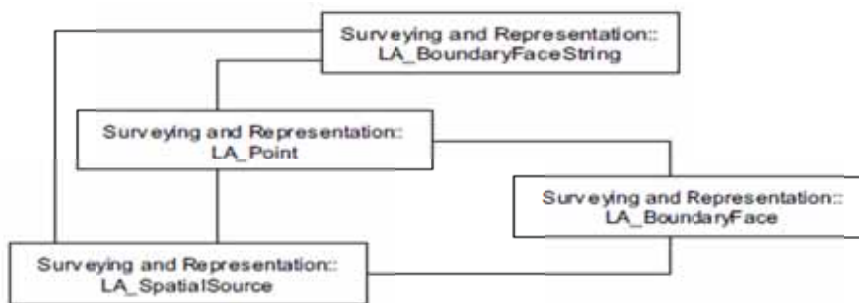


Figure 5. Surveying and representation sub-package (ISO 19152, 2012)

### 3.3 Basic Classes of LADM

Basically, there are four basic classes of the LADM (Figure 6) which are;

1. *LA\_Party* - Parties are an instances of this class.
2. *LA\_RRR* - Rights, restrictions and responsibilities are an instances of this *LA\_RRR* subclasses.
3. *LA\_BAUnit* - Basic administrative units are instances of this class.
4. *LA\_SpatialUnit* - Spatial units are instances of this class.

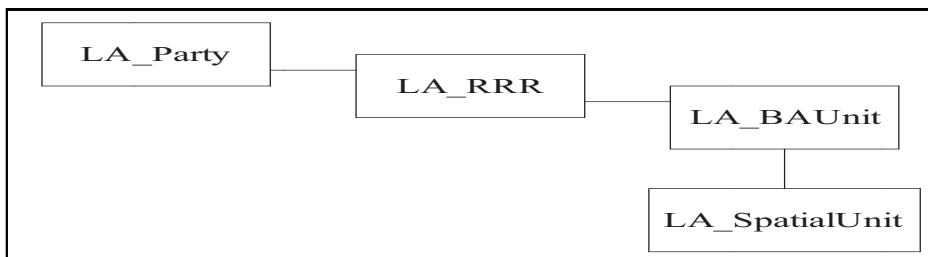


Figure 6. Basic classes of LADM (ISO 19152, 2012)

### 3.4 2D and 3D Spatial Unit Based on LADM

The spatial units are a flexible concept to illustrate the geometry of an objects in reality, different types of spatial units are supported in LADM (Lemmen, Van Oosterom, Eisenhut, & Uitermark et al., 2010). This type of spatial

unit is used if the representation is allowed to have incomplete boundaries and hanging lines. A collection of spatial units with a thematic, geometrical and topological coherence is called a 'level'. The level can be organized on the basis of the geometrical or topological structure of the spatial units, This occurs when the data collected was at different times using different data acquisition methods (Figure 7).



Figure 7. Line based spatial units (ISO 19152, 2012)

### 3.5 Geometry and Topology Classes

Object classes describing geometry and topology are *tp\_node*, *tp\_edge* and *tp\_face*. Geometry in LADM is based on survey points (mostly after geo-referencing, depending on data collection mode: tape, total station, Global Navigation Satellite System (GNSS), etc.) and is associated with the classes *tp\_node* and *tp\_edge* to describe intermediate shape points between nodes, metrically based on survey points.

Basically, lots have a 2D or 3D geometry. 2D lot geometry can be defined by a minimum of 3 horizontal planar survey points. For 3D geometry, volume is defined by a minimum of 4 non-planar survey points such as the tetrahedron which is the simplest 3D volume.

The lot corresponds one-to-one to the 'tp\_face' in a topological structure. The face is bounded by its edges in 2D. The edge is related one-to-one to a lot boundary, which may contain non-geometric attributes. Each edge has a beginning node and ending node represented in 'tp\_nodes'. Furthermore, an edge may also have some intermediate points. Both intermediate points and nodes are associated with survey points. The topological primitives *tp\_nodes*, *tp\_edge* and *tp\_face* have a method (operation) called 'create view' which can be used to obtain a full metric representation. Furthermore, there are also 'create view' methods presented within the area and volume property classes to return the whole and clear geometry respectively *gm\_surface* and *gm\_volume*. For *gm\_volume*, this will result in a tetrahedron.

## 4. The Creation of Malaysian Country Profile

### 4.1 Overview of Malaysian Land Administration System

The Malaysian land administration system is based on the Torrens system. The main objective of the Torrens system is to make the register of the documents of title as a conclusive evidence of land ownership. Once a person's title is registered in accordance with the prescribed registration procedures, the person in whose favour the dealing is registered will become the indefeasible proprietor or interest holder to the exclusion of all others. Under Torrens system, for each parcel of land or lot, there is one document of title, namely Register Document of Title in Malaysia. This document has all the essential legal information about the title. This original document is kept in a register maintained by the relevant land office, and duplicate is issued to the registered proprietors for the time being. In Malaysia, Department of Survey and Mapping (JUPEM) is responsible for managing and maintaining the cadastral system. JUPEM deals with the cadastral survey to determine the dimension, size and location of the properties. JUPEM is also responsible for preparing Certified Plan, producing and managing the spatial component including the surveying and mapping of the cadastre parcels. The administrative (legal) data, is the responsibility of the land offices in State level. The land office deals with ownership registration, i.e. who owns the *RRRs*. Both organizations have their own information management systems: *eTanah* and *eKadaster* in land office and JUPEM respectively (Tan & Looi, 2013).

#### 4.1.1 *eTanah*

Ministry of Natural Resources and Environment (NRE) creates an integrated computerized system, i.e. Electronic Land Administration System (*eTanah*) to realize the computerization of the overall management and administration of land. *eTanah* is planned to improve the delivery of land administration and management services in Peninsular Malaysia using an integrated ICT infrastructure.

The main objective of *eTanah* is to develop a complete system in land offices in order to modernize all activities that are related to land and to realize the implementation of electronic government in the public sector. In addition, the mission of *eTanah* is to implement a National Land Administration System via ICT towards improving the growth of national development. It is an integrated and a fully computerized system to administer land offices in order to increase the quality of service delivery to the public for all land related dealings. *eTanah* also enables the public to make payments online and print the payment receipts, checking details on their own land and so on.

#### 4.1.2 eKadaster

The vision of the Malaysian government is to become a developed country by the year 2020 which encompasses the realization of an efficient public delivery system at various levels. Since 1995, JUPEM has embarked on a modernization program that saw the dramatic computerization of both field and office processes of its cadastral survey division. The digital cadastral database was created by capturing the surveyed accurate information of all land parcels. The *eKadaster* project is under the 9th Malaysian Development Plan (2006-2010). This has been approved to be implemented by the Department of Survey and Mapping Malaysia (JUPEM) and aims to achieve a fully digital Malaysia by 2015.

Under the *eKadaster* project, a comprehensive nationwide readjustment of the meshwork of parcels was carried out based on a new geocentric datum. A dense network model known as the Coordinated Cadastral System (CCS) of Real Time Kinematic Global Positioning System (RTKGPS) permanent stations has been established to provide precise geocentric positioning and implemented through the *eKadaster* project (JUPEM, 2009).

#### 4.1.3 Strata Title

The Register Document of Title has all the essential legal information about the title. Strata title was first introduced into Malaysia by way of certain sections of the National Land Code 1965 (Act 56). In the course of time, it was decided that it would be best to replace the existing provisions of the National Land Code, which relate to strata title with comprehensive Act. Thus in 1985, the Strata Title Act was passed.

The latest update that will bring about a significant change to the landscape of strata developments and common property management comes in the form of the Strata Titles (Amendment) Act 2013 (STAA 2013), which has come into force in June 2015. The amendments under STAA 2013 include the introduction of the Electronic Land Administration System of Strata Titles, the designation of limited common property, and the creation of one or more subsidiary management corporations to represent the different interests of parcel proprietors.

The management corporation is a body corporate of which all proprietors are automatically members, and it has the responsibility of administering the strata scheme, including looking after maintenance of the common property, enforcing by-law and collecting levies from the proprietors to finance necessary expenditure. Proprietors' voting rights and liability to contribution for expenditure are assessed according to their share units or unit entitlements.

Thus, each individual proprietor of a parcel has the advantage of title to his own property, which he may deal with freely in the same way as an ordinary Torrens title property. He has part ownership of the common property with other proprietors and must contribute to expenses, and the scheme in principle is free from the major disadvantages associated with previous methods of ownership of high-rise property.

The proprietors need to get, keep and preserve strata title of their units for the following reasons:

- i. As ultimate proof of ownership.
- ii. As a dealing instrument for instances of charging to banks for loans.
- iii. To facilitate disposal should they wish to sell
- iv. To be able to initiate and get involved when the Management Corporation is formed by proprietors of the units in the sub-divided building or land to maintain and manage the property.
- v. As a final proof of the built-up area of the unit and ultimately, the appointment of the share in the total aggregate units.

Figure 8 illustrates the various types of strata objects in Malaysia. A parcel in relation to a subdivided building, means one of the individual units comprised therein (apartment or condominium), which is held under separate strata title. An accessory unit means a unit shown in a strata plan, which is used or intended to be used in conjunction with a parcel. A common property means so much of the lot as is not comprised in any unit (including any accessory unit). A limited common property means common property designated for the exclusive

use of the proprietors of one or more strata lots. A land parcel means a unit delineated within the lot (in which is comprised a building of not more than four storeys) which is held under a strata title and which may have shared basement, accessory unit and common property.

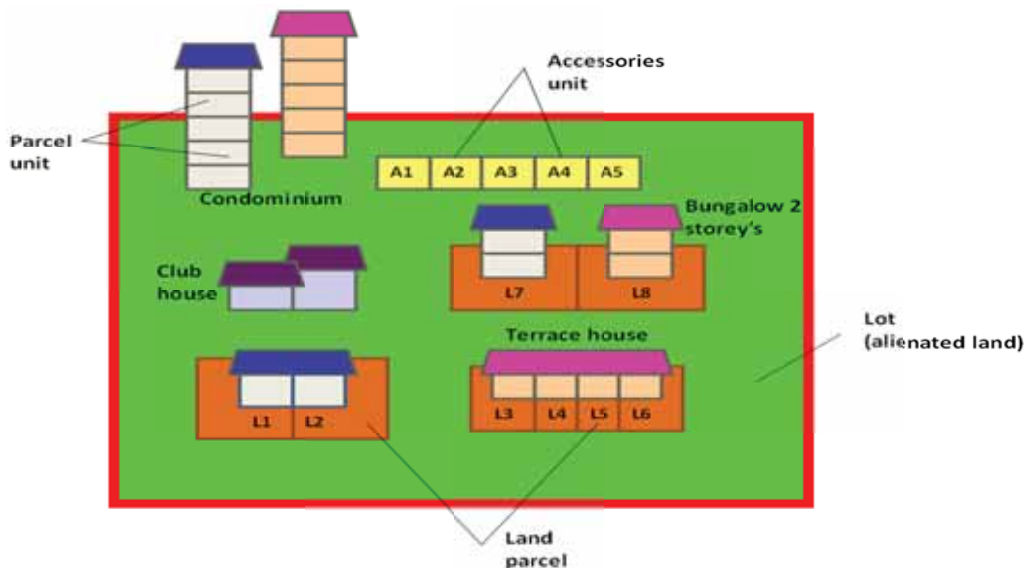


Figure 8. Various cadastral objects related to strata in context of one lot

#### 4.2 Development of Malaysian Country Profile

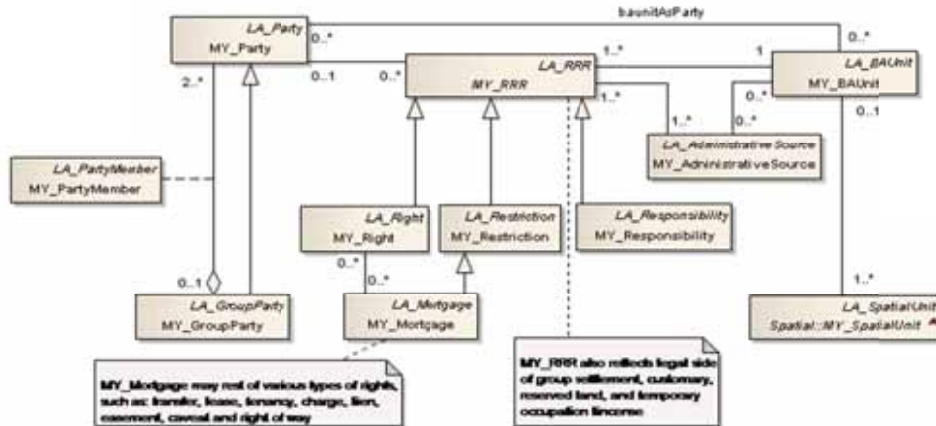


Figure 9. Overview of administrative (legal) part of Malaysian LADM country profile

The development of Malaysian Country Profile is based on the data sources that are obtained from Land Office and Department Survey and Mapping (JUPEM). Administrative data is collected from the Land Office while spatial data is obtained from JUPEM. Administrative data contains ownership of lots and strata title for building. The spatial data for this research contains National Digital Cadastral Database (NDCDB) model for lots and Strata XML model for building. The development of Malaysian Country Profile is also based on the User Requirement Analysis (URA) from JUPEM and Land Office officers.

The URA of this LADM country profile has been established from workshops and meetings organized between JUPEM’s core group on cadastre and 3D GIS LADM group of University Technology Malaysia (together with TU Delft) on 7<sup>th</sup>-8<sup>th</sup> November 2013. Many suggestions and views were gathered and discussed during the workshops. All the suggestions were incorporated in the conceptual and technical models of the country profile.

Based on the earlier works and publications (Abdul Rahman, Teng, & Van Oosterom, 2011; Tan and Looi, 2013; Zulkifli, Abdul Rahman, & Van Oosterom, 2013), which have taken initial steps towards a Malaysian country profile, this research further develops the model. Figure 9 and 10 give an overview of the developed model. In this research, *MY* is the prefix for the Malaysian country profile, covering both the spatial and administrative (legal) data modelling. For the first time, the Malaysian country profile is now based on the inheritance of the LADM classes. To illustrate the inheritance from the LADM classes, the *MY\_classes* have either in upper right

corner the corresponding *LA\_class* name in italics or have the explicit inheritance arrow shown in the diagram. All classes in Malaysian model are derived directly or indirectly (via the inheritance hierarchy) from LADM classes.

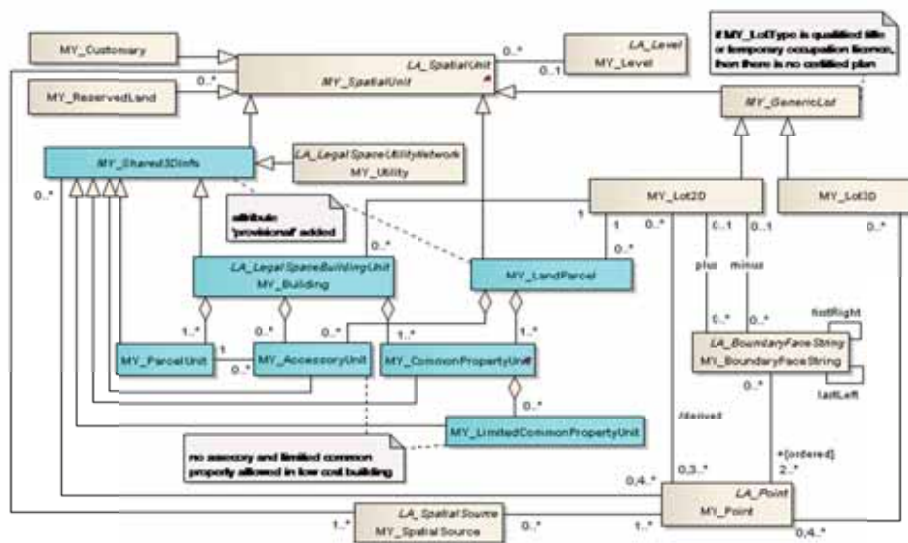


Figure 10. Overview of spatial part of Malaysian LADM country profile (Blue is used for strata related classes)

#### 4.2.1 Administrative (legal) Part

The legal part of Malaysian LADM country profile contains Party and Administrative package. Main class of the party package is *MY\_Party* class with its specialisation *MY\_GroupParty*. There is an optional association class called *MY\_PartyMember*. Basically, a party is a person or organisation that plays a role in a rights transaction. The organisation can be a company, a municipality or a state. A group party is any number of parties, forming together a distinct entity. A party member is a party registered and identified as a constituent of a group party. This allows the documentation of information to a membership (holding shares in right).

The administrative package concerns the abstract class *MY\_RRR* (with its three concrete sub-classes *MY\_Right*, *MY\_Restriction* and *MY\_Responsibility*), *MY\_Mortgage*, *MY\_BAUnit* and *MY\_AdministrativeSource*.

A right is an action or activity that a system participant may perform on or using an associated resource such as ownership, customary, easement and tenancy rights. The rights may be overlapping or may be in disagreement. A restriction is a formal or informal entitlement to refrain from doing something. For example, it is not allowed to build a house on a piece of land or not allowed to transfer the title to other parties within some period of time. A responsibility is a formal or informal obligation to do something such as the responsibility to maintain a monument or a building. The instance of class *MY\_Mortgage* is a mortgage. *MY\_Mortgage* is a subclass of *MY\_Restriction*. *MY\_Mortgage* is also associated with *MY\_Right* class. The mortgage can be associated to zero or more rights.

A *BAUnit* is an administrative entity consisting of zero or more spatial units (parcels) against which one or more unique and homogeneous rights, restrictions or responsibilities are associated to the whole entity as included in the Land Administration System. An example of a *BAUnit* is a basic property unit with two spatial units with same RRRs attached (e.g. Federal Land Development Authority-FELDA). A settler can have two spatial unit (i.e. residential and farm land) with same RRRs attached. A *BAUnit* may play the role of a party because it may hold a right of easement over another, usually neighbouring, and spatial unit.

One of the important foundations of LADM is the fact that all information in the system should originate from source documents and that the association to the source document is explicitly included. In case of administrative source documents (usually titles) there are associations with rights, restrictions (including mortgage) and responsibilities (RRR) and basic administrative unit. *MY\_AdministrativeSource* associates with *MY\_RRR* and *MY\_BAUnit*. The LADM Malaysian country profile uses *sID* for administrative source. Basically, *sID* for administrative source is title number.

Except source documents, all classes in LADM (and therefore also all derived classes in Malaysian country profile), are a subclass of *VersionedObject* and inherit all the *VersionedObject* attributes (Figure 11). The class



*VersionedObject* is introduced in the LADM to manage and maintain historical data. As source documents cannot change, only new source documents can arrive, they are not versioned. The current land administration system in Malaysia does not yet support full history management, so this is a significant change. It is not only an important change for the land administration system itself, but it is also crucial for the future Malaysian information infrastructure, as others might need the functionality to refer to historic versions of land administration objects.

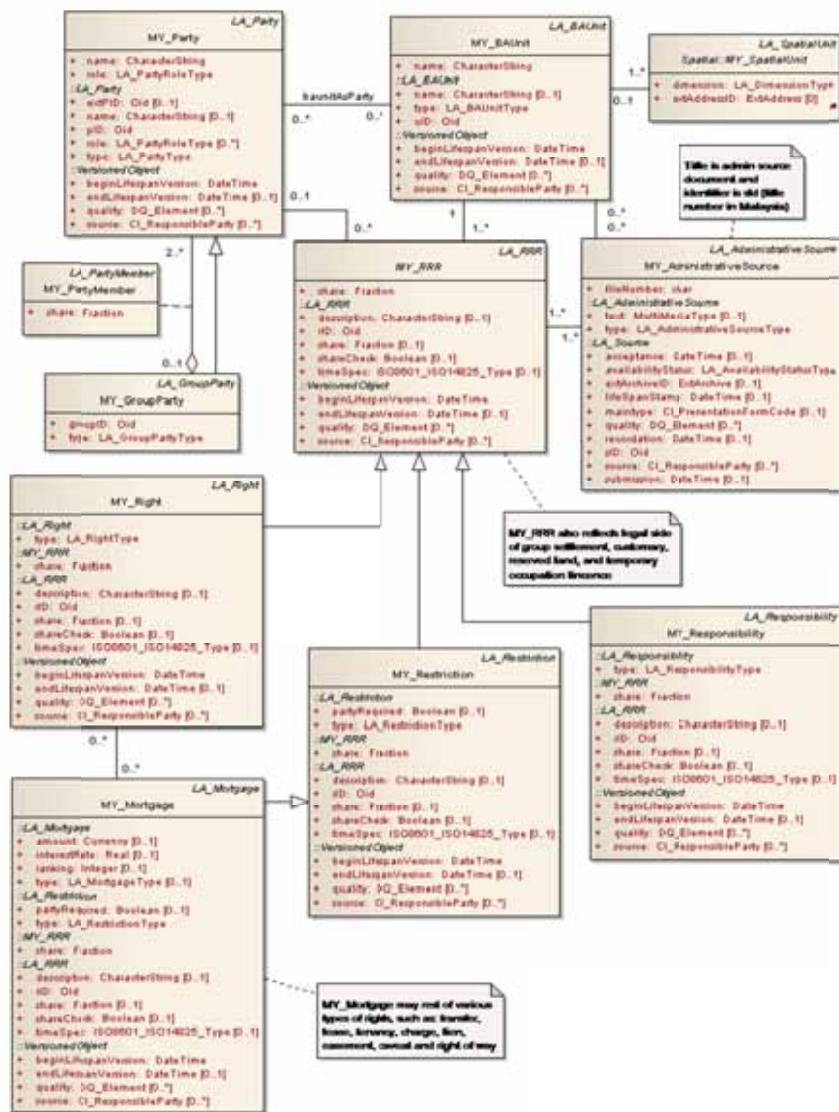


Figure 11. Details of administrative side of model (Mainly showing LADM inheritance)

#### 4.2.2 Spatial Part

In the Malaysian country profile, spatial units can be in 2D or 3D forms. Traditionally, lots (land parcels) are 2D, but the subsurface of lots do already exist with 3D description with volumetric descriptions (without 3D topology). The model has introduced an abstract class *MY\_GenericLot* holding the attributes of a lot and this class has two specializations *MY\_Lot2D* and *MY\_Lot3D*, with their own attributes and structure. Currently *MY\_Lot2D* is based on 2D topology with references to shared boundaries (*MY\_BoundaryFaceString*).

In the 3D spatial unit, topology is not used: not for lots (*MY\_Lot3D*), nor for strata objects. In the model one strata object type remains to be represented in 2D, *MY\_LandParcel* (with building no more than 4 storeys). The other strata objects are all proposed to be 3D and therefore inherit from an abstract class *MY\_Shared3DInfo*, with strata specializations (and mutual aggregation relationship): *MY\_BuildingUnit*, *MY\_ParcelUnit*, *MY\_AccessoryUnit*, *MY\_CommonPropertyUnit* and *MY\_LimitedCommonPropertyUnit*. As there can be several

*LimitedCommonProperty* in one *CommonProperty*, this is modeled as a part-of relationship to *MY\_CommonProperty* (the aggregation class). In the class diagram (Figure 12), the blue classes refer to part of strata objects for a better readability of the model.

Note that there are several abstract classes in the Malaysian country profile as indicated in Italics: *MY\_SpatialUnit*, *MY\_Shared3DInfo*, *MY\_GenericLot*. These classes are only supporting the modelling process, representing shared attributes and structures, and these abstract classes will not get any instances (and therefore no corresponding table in the database implementation). For *MY\_Shared3DInfo* there is a geometry attribute (of type *GM\_Solid*). Normally the 3D geometry in LADM is represented in *LA\_BoundaryFace*, but given the fact that no 3D topology is used there is 1-to-1 association with the spatial unit (one of the specializations of *MY\_Shared3DInfo*). So, it could be argued that the proposed country profile is ISO conforming, despite that absence of the class *LA\_BoundaryFace*. Figure 12 contains more detailed information concerning the 2D and 3D geometry and topology aspects and the various design decisions for the model.

To make the model comprehensive and future proof, a wide range of spatial units is supported including legal spaces for utilities (3D), customary areas, and reserved land (forest, wildlife areas). It should be noted that reserved land (forest, wildlife), are associated with own RRRs, normally have no overlap, but in some cases overlap can happen depending on state and type. The spatial description of reserved land is by text or sketches, but they may also be surveyed (or a combination with the above).

The various types of spatial units are organized in levels. In this model, *MY\_Level* class is used to organize the various types of spatial units. For *MY\_Level*, there is a type attribute which describes the level type of the spatial unit. The type of spatial unit includes customary, lots (mixed land and road), building (parts, strata) and utilities. The code list for this attribute can be referred to *MY\_LevelContentType*. Basically, *MY\_Level* is a collection of spatial units with a geometric or thematic coherence. The following levels are proposed: level 0 for customary, level 1 for reserved land, level 2 for 2D lot, level 3 for 3D lot, level 4 strata, and level 5 for utility. In the involved classes a constraint has been added (third box in class diagram) to make this more explicit. For an example; *MY\_Customary* has a constraint: *MY\_Level.name = level 0*.

In the case of some special types of lots there may be no Certified Plan; related to Qualified Title (only temporary boundary from sketch/demarcation by settlement officer/pre-computation plan). Also strata with provisional block for building or land parcels for phased development are supported by marking them as provisional via additional attribute. In one scheme for building (3D), it also has provisional block. Based on section 4 of Strata Titles Act 1985 (Act 318), provisional means “in relation to a proposed strata plan, a block in respect of a building proposed to be, or in the course of being, erected, for which a separate provisional strata title is applied for; (b) in relation to an approved strata plan, such a block shown therein, for which a provisional strata title is to be registered; (c) in relation to a book of strata register, such a block shown therein, for which a provisional strata title has been registered”.

In the proposed country profile, there are some attributes, which are repeated after inheriting them from *LA\_class*. The reason for this is that they have different multiplicity the same attribute has in the corresponding *LA\_class*. For an example, *LA\_AreaValue* in *MY\_Lot3D* class has 0 multiplicity because this class has no value for area and in *MY\_Lot2D* the multiplicity of this attribute is [1..\*]: indicating the presence of one or more area values. The original *LA\_class* (*LA\_SpatialUnit*) for the area attribute has multiplicity zero and more [0..\*]. Note that some example area types of *LA\_AreaValue* are: *officialArea*, *nonOfficialArea*, *calculatedArea*, and *surveyedArea*.

In case of spatial source documents (usually Certified Plan) there are links with spatial unit and point tables: *MY\_SpatialSource* has association with *MY\_SpatialUnit* and *MY\_Point*. The LADM Malaysian country profile uses *suID* for spatial unit and *sID* for spatial source. Basically, *suID* in Malaysian country profile is based on Unique Parcel Identifier (UPI). *sID* for spatial source is the Certified Plan number. A note has been added in the country profile to indicate this.

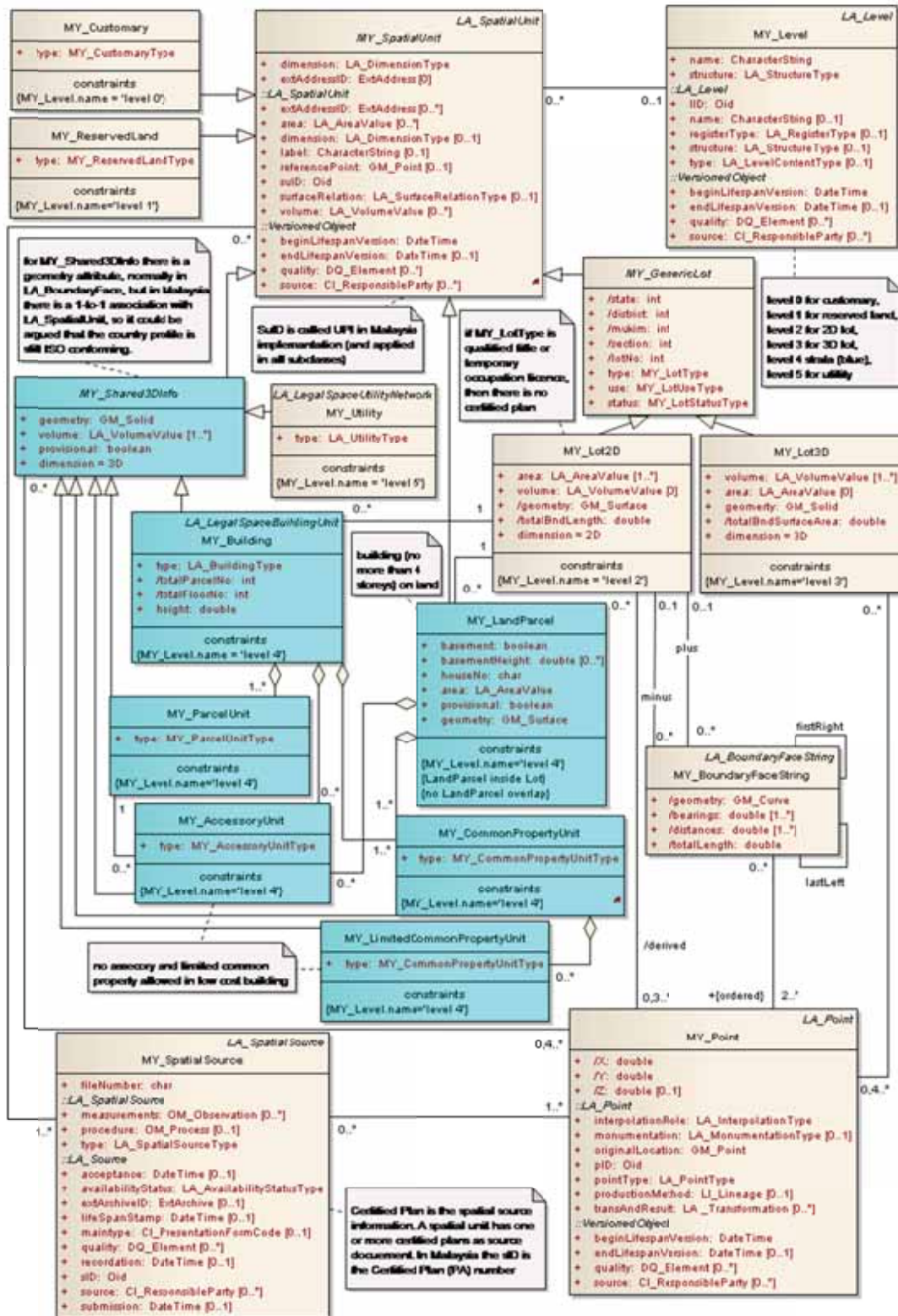


Figure 12. Details of spatial side of model

In Malaysia there is normally 1 to 1 relationship between *BAUnit* and spatial unit. However, there are some cases where one *BAUnit* (with same RRRs attached) has multiple Spatial Units: a combination of farmland with residential house (Group Settlement Act 1960). Also, some status values of *MY\_Lot* (e.g. 10, which indicates charting stage) relate to lots that have yet had RRRs attached, to make this possible, the multiplicity of the

association between spatial unit and *BAUnit* is 0..1 (optional) at 'BAUnit' side. In the future, the Malaysian land administration system can consider more grouping of spatial units with the same *RRRs* attached via a single *BAUnit*.

#### 4.2.3 Topology Model

Topological boundaries do not intersect and do meet other boundaries at begin and end nodes. All topological boundaries are used once in positive and also exactly once in negative direction. Unless the boundary is on the edge of the domain, then it is used only once. All associated boundaries together form one or more non-intersecting rings defining at exactly one outer ring (with counter-clockwise orientation) and optionally one or more inner rings (with clockwise orientation). For 2D lots topology is used: based on 3 primitives' node (point), edge (*MY\_BoundaryFaceString*), face (lot). In general, a topological data model manages spatial relationships by representing spatial objects (point, line and area features) as an underlying graph of topological primitives—nodes, edges and faces (Figure 13). Topology is a set of rules and behaviors that model how points, lines and polygons share coincident geometry. For an example, adjacent features, such as two lots, will have a common boundary between them, sharing the same edge. Topology references (in *MY\_BoundaryFaceString*) are:

- i. edge-node = *fromNode* and *toNode* (and intermediate points),
- ii. edge-edge = *firstRightEdge* and *lastLeftEdge*, and
- iii. edge-face = *rightFace* and *leftFace*.

Currently JUPEM represents a boundary (edge) with a straight line segment with no intermediate points, but it is proposed in the model to also have potential intermediate points, running from node to node (node=location where 3 or more boundaries meet). It is good to have intermediate points as a boundary, because this will result in less records, a more compact representation with less repeated left/right references (for a chain of straight line segments between two topological nodes, all left/right references must equal).

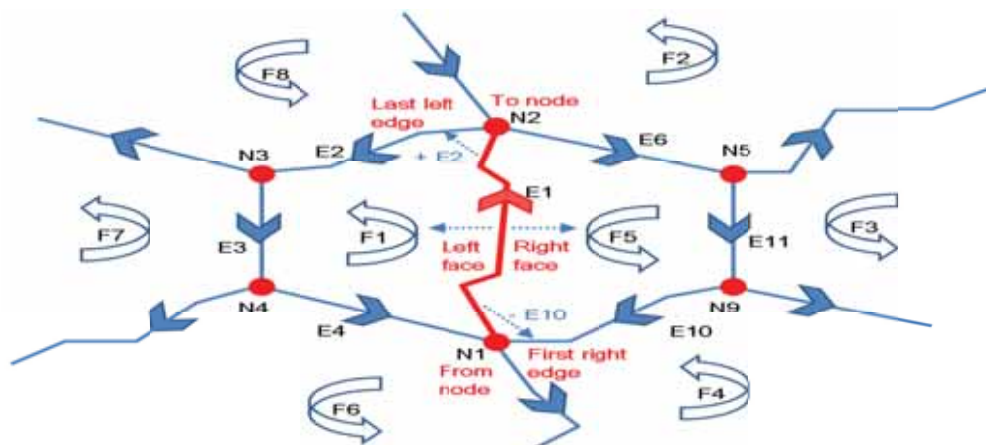


Figure 13. 2D Topology model as used in the Malaysian country profile

#### 4.3 The Technical Model (Identifier)

According to LADM, Object identifier (*Oid*) has two parts: the 'namespace' and a local *ID*. An example of a possible namespace would be *lot2D.cadastre.jupem.my* (or *point.cadastre.jupem.my*) and by adding this to the local *ID*, it becomes globally unique (as nobody else is allowed to assign *IDs* in this name space). However, within the system of JUPEM (internally), it is not needed to add the namespace (would normally be the same for all objects in the same table). Therefore, internally the local *ID* is enough for the various identifiers values. Next issue is to assign the unique *IDs* for the various types of objects.

The important aspect is that the 'ID's have to be unique for objects. Note that for a single object there may be multiple versions, which can be differentiated via their *beginDateTime* attribute - part of the Primary Key (PK) together with the *ID*. The identifiers for the land parcels and the various types of (building) units are based on the Unique Parcel Identifier (UPI). The maximum number of UPI for normal lot is 16 characters (JUPEM, 2009). Table 1 shows an example of values of *IDs* for each of the object (spatial unit) type. A more detailed explanation of UPI can be referred to Zulkifli et al., 2013.

Table 1. Example of 'ID's (UPIs) for the main classes

Class	ID
Lot ('Normal' Spatial Unit)	04010800015662
Strata land parcel (building <= 4 storeys)	04010800015662(S)846(L)1
Accessory unit, outside building	04010800015662(S)846(A)1
Common property, outside building	04010800015662(S)846(C)1
Strata multilayer land parcel	04010800015662(S)846(B)ML1(M)0(T)ML1(L)1
Accessory unit, multilayer land parcel	04010800015662(S)846(B)ML1(M)0(T)ML1(A)1
Common property, multilayer land parcel	04010800015662(S)846(B)ML1(M)0(T)ML1(C)1
Strata multilayer land parcel (underground)	04010800015662(S)846(B)ML1(M)0(T)MLB1(L)1
Accessory unit, multilayer land parcel (UG)	04010800015662(S)846(B)ML1(M)0(T)MLB1(A)1
Common property, multilayer land parcel (UG)	04010800015662(S)846(B)ML1(M)0(T)MLB1(C)1
Building - main block (M)	04010800015662(S)846(B)M1(M)A
Building - provisional block (P)	04010800015662(S)846(B)P1
Parcel unit (inside building, condominium)	04010800015662(S)846(B)M1(M)A(T)1(P)1
Accessory unit, inside building	04010800015662(S)846(B)M1(M)A(T)1(A)1
Common property, inside building	04010800015662(S)846(B)M1(M)A(T)1(C)1

## 5. Conclusions and Recommendations

The LADM is an international standard for the administration of land. This concept is being adopted by several countries to streamline terminologies and enable cross boundary land transaction and acquisition. Referring to conceptual model that is proposed in this research, LADM provides standardized class names for spatial and administrative data. For spatial data class, they have their own standard name called 'SpatialUnit'. In the presented conceptual model, the Malaysian LADM country profile, 'SpatialUnit' has a number of specializations, which are Customary areas, Reserved Lands, Lots (2D and 3D), Legal spaces Building (with various unit types, all in 3D), Land Parcels (strata title, which house no more than 4 storeys, in 2D) and legal spaces Utilities (3D). Building Unit is also divided into three subclasses, which are Parcel Unit, Accessory Unit and Common Property Unit (which has two subtypes: normal and Limited Common Property Unit).

The proposed country profile based on the LADM provides a conceptual model for the 2D and 3D cadastral situations relevant land administration agencies in Malaysia. Strata title and other objects have been enumerated to show how 2D and 3D objects can be registered within the LADM standard. The data model also shows how the two agencies concerned with land administration can be integrated.

LADM can be utilized for 2D and 3D cadastre objects using any UML software tool. In this research, the Enterprise Architect (EA) was used because of the advantage of it having all the ISO models for land administration. It also can perform highly automated transformation of UML diagram, to database tables SQL DDL scripts for data storage or XML schema for data exchange format.

It is good to first experiment with manual transformation from conceptual model to database table, to better assess the issues involved (e.g. define spatial indices/ clustering, transform generic ISO19107 geometry and topology specific database structures, identifiers generated by the system in addition to 'user identifiers', such as UPI, etc.).

The proposed country profile based on the LADM provides a conceptual model for the 2D and 3D cadastral situations relevant land administration agencies in Malaysia. The next steps include a conversion of conceptual model to physical model and development of prototype, using existing sample data from Department of Survey and Mapping and Land Office based on the proposed conceptual model of the Malaysian country profile. The

future work may include: Further investigation on the potential use of 3D topology per building, to represent the various units within the building that share faces instead of giving each unit its own 3D geometry which can duplicating the shared faces between neighbours in the database storage; Investigation of potential integration of administrative/legal data (land office) and spatial data (JUPEM) via Malaysian Information Infrastructure (i.e. SDI), with the following two main goals: Consistency of data (data quality aspect) and Combined query (better, more complete services); Exploration the full potential of LADM for the Malaysian Information Infrastructure (i.e. SDI) development.

### Acknowledgments

This project is funded by the University Technology Malaysia (UTM), under Potential Academic Staff grant (PAS).

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# Analysis of the Development of Financial Risk Management of the Enterprise in Kazakhstan

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Received: June 23, 2015 Accepted: July 7, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p315

URL: <http://dx.doi.org/10.5539/ass.v11n24p315>

## Abstract

In this scientific article based on the study of problems of effective management of financial risks of Kazakhstani companies and "KazMunaiGas" JSC were identified the main risks, which typical for Kazakhstan's financial market at the present stage of its development, was justified the feasibility of using indicators to measure the level of financial risks on the basis of the comparative analysis based on the VaR methodology, as well as the expediency of the use of futures and options contracts to hedge the financial risks of the companies.

**Keywords:** financial risk management, KMG JSC, Value at Risk, hedging of financial risks, futures and options contracts

## 1. Introduction

One of the most important elements of a market economy is the financial market, the formation and intensive development in Kazakhstan which has become an integral and constituent part of the complex and multifaceted process of restructuring of economic relations. However, the unstable nature of economic processes in the country, the imperfection of the system of management of financial market and its legislative and regulatory framework, increasing its dependence on fluctuations in world market conditions and other factors imply the existence of high risks to economic entities operating on the Kazakhstan financial market. The problem of financial risk management is a key in business. It is associated with loss of the stable financial position of the company in the process of activity and is the main element to making any economic decisions. Therefore, it is very important to study emerging in the company's financial risks and the identification of methods and techniques for their management. The research is based on methodological and theoretical development of the control systems and financial risk assessment presented in the works of Russian and foreign scientists, who focus on the problems of financial risk management, focusing on the internal mechanisms of neutralisation of financial risks.

Among the research works on the issue is needed in the area of financial management and risk analysis to note the research papers of Balabanov I. T., Burenina A. N., Vorontsov A. V., Kandinsky O. A., Kasimova Y. F., Kuznetsov M. V., Lobanov A. A., Lukashin Y. P., Mirkin Y. M., Mikhailova M. D., Pervozvansky T. N., Pervozvansky A. A., Rogov M. A., Chetyrkin E. M., Alexander G., Braley R., Brigham Y., Braly J., Van Horne J., O Gapenski L., L. Galicia, Gloriana P., Douglas L., Myers C., Marshall J., Mishra V., F. Knight, Paramo K., Penza, P., Rudolf M., Raja K., Smith K., Willota P., Waltham J., Fabozzi F., Sharpe W. As an independent research area in financial risk assessments should provide financial econometrics, models and methods which allow us to estimate the main parameter of financial risk – volatility. Their development is devoted to research papers of Ayvazyan C., Yelisseyeva I., Mkhitaran V., Bacalava L., Green M., Campbell J., Lo V., McKinley A., Taylor C., and Kazakh scientists Baymuratov W. B., Chelekbay A. D., Abdrakhmanova G. T., U. M. Iskakova, M. U. Spanova.

However, despite a number of significant theoretical results in this area, their applicability on the Kazakhstan stock market does not guarantee its participants financial losses. All this raises a number of significant scientific problems improvement and formation of approaches to the assessment and management of financial risks, adequate to the conditions of Kazakhstan's financial market that causes the relevance of the dissertation research.

## 2. Method

Analyzing Kazakhstan's experience in risk management, most companies see the obvious need for a comprehensive risk management system. Many companies have implemented this process or be at a stage of active implementation. So according to the static data of independent experts 66% of companies in the Republic of Kazakhstan introduced the position of a risk Manager, and 21% are going to introduce this feature in next year. 30% and 35% of companies, respectively, allocated in their organizational structures the Commission and the Committee of Directors on risk management.

In 47% the companies of an obligation for the organization and support of process of management of risks are assigned to the risk manager. Also results of poll showed that in 18% of the companies the head of internal audit that doesn't correspond to the best world practices on ensuring independence of internal audit is responsible for process of the organization of risk management. The CEO is responsible for process of management of risks only in 12% of the companies. Thus, 24% of risk managers are formally subordinated to the CEO, and functionally to committee of audit.

In the countries of Asia, Australia, Western Europe and North America the top management of the companies is actively involved in process of management of risks, and the organization of this process is assigned to the CEO. Obvious distinction in approach to risk management in the Kazakhstan companies can be explained by distinction in culture of understanding of risk management at top management of the companies. Thus, it is necessary to consider that in countries of Western Europe function of the risk manager of the companies to be at higher step of administrative hierarchy than in Kazakhstan. In the majority of the companies of Asia, Australia, Western Europe risk managers are a part of the top executive management. In Kazakhstan function of the risk manager quite often joins in structure of department of internal audit with direct submission to the director of internal audit of the company.

## 3. Results

In spite of the fact that the majority of the companies declare active introduction of process of management of risks, many companies don't know a threshold of risks, which the company in case of approach of negative events is capable to sustain that can lead to not predicted monetary losses and failures of projects.

As in any management process, in process of management of risks companies face certain obstacles in a way of creation of an effective control system of risks. So, as the main barriers interfering effective management of risks the Kazakhstan companies (57%) allocate insufficient interrelation between functional divisions of the company regarding risk management, and also absence of corporate culture of risk management. While for the western companies poor quality of the received information (43%) and impossibility of receiving an exact assessment of risks of the company (36%) were called the most essential barriers. For the Kazakhstan companies poor quality of the received information only on the third place (45%), but not possibility of receiving an exact assessment of risks of the company (31%).

One of the barriers, which is seriously interfering to development of control system of risks, many companies call low efficiency of the applied techniques of identification, an assessment and risk management. This result can be caused by control systems of risks, which are insufficiently formalized and integrated. At implementation of programs for reduction of expenses many companies don't employ third-party consultants and don't see sense in introduction of the software for identification, an assessment and risk management, preferring to consult own forces. The lack of financial resources was noted 12% of the companies as one more barrier disturbing to increase process efficiency of risk management. Thus, insufficient process formalization of risk management and lack of experience in area lead a risk management to that the majority of the companies of real sector of economy at an assessment of risks generally rely on experience of experts. Exact quantitative techniques of risk assessment are used insufficiently widely. It can be explained with lack of sufficient volume of statistical data on cases of realization of these or those that is necessary for carrying out an exact quantitative assessment. On the other hand, low preparation of the personnel of the companies in the field of risk management as was noted earlier, also significantly slows down introduction of quantitative techniques in the companies.

**Organizational-economic characteristics of the JSC "Exploration Production "KazMunaiGas".** JSC "Exploration Production "KazMunaiGas" ("KMG") is one of the leaders of oil production in Kazakhstan. The company is a producer of oil, natural gas and associated gas from its own hydrocarbon reserves on the deposits in the western and southern regions of Kazakhstan.

The company was formed in March 2004 through the merger of JSC Uzenmunaigas (UMG) and Embamunaigas (EMG). After a successful initial offering of the capital on the London and Kazakhstan stock exchanges at the



end of 2006, through clever implementation of acquisition policies, programs, investments in fixed assets and effective measures to optimize costs, KMG has considerably strengthened its position in both domestic and international markets. In its IPO in September 2006 the company has attracted more than 2 billion USD. "KMG" is a subsidiary of the national oil company of the Republic of Kazakhstan – JSC "National Company "KazMunayGas" (KMG NC), which owns 60.5 per cent of the common shares of KMG as at 31 December 2012 (Figure 1).

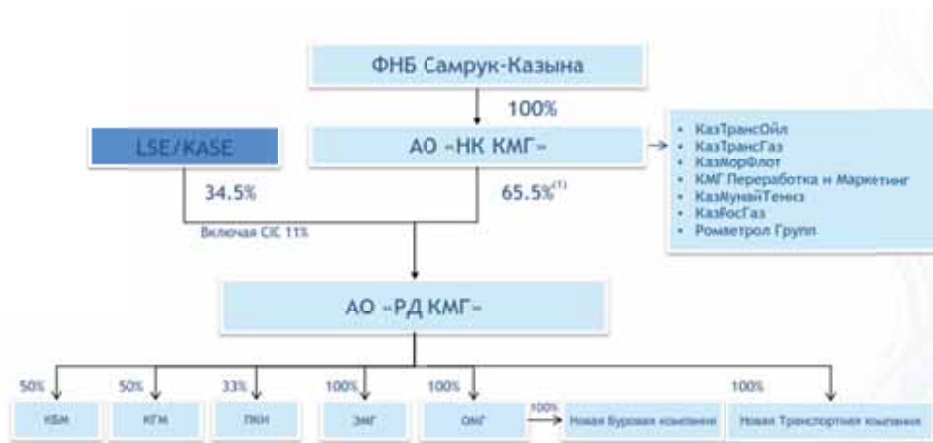


Figure 1. Structure EP "KazMunaiGas"

JSC "Exploration Production "KazMunaiGas" is also actively implementing a program of exploration work to maintain and develop the resource base and develops the 41 fields in Western Kazakhstan. The total area of the fields is 837,4 km<sup>2</sup>. Production units of the company have been operating for over 90 years. Key production assets of the Company are two industrial branches: UMG and EMG, with general level of production 177 thousand barrels of oil per day in 2010. The Uzen field is the largest in the portfolio of core assets of KMG, it accounts for 73% of all stocks and 68% of the total mined production.

One of the main objectives of KMG is the growth of hydrocarbon reserves. This growth is possible thanks to the acquisitions of new assets, exploration and production optimization at core fields [4].

According to experts, the total oil reserves category proved plus probable (2P) JSC "Exploration Production "KazMunayGas" as of the end of 2011 amounted to \$ 225,816 million tons (1,661 billion barrels), excluding shares of KMG in companies "Kazgermunai" (KGM), CCEL (CCEL) and "PetroKazakhstanink" (PKI) in comparison with 232,082 million tons (1,707 billion barrels) at the end of 2010. In 2013, they plan to increase oil production by 2% to 13.5 million tons. Keeping the pace of oil production at the level of last year, JSC "KazMunaiGas" would ensure the scope of work at least a quarter of a century. But according to their long-term development strategy, the Company continues to explore, to expand the volume of hydrocarbon production, to increase profitability of existing assets and develop new business areas [4].

The company is subject to a number of risks, including risks of environment, market, operational, financial, investment and risks of corporate management. The company exercises risk management within Policy of risk management. The policy of the Company in the field of risk management is directed on growth of joint-stock cost and improvement of quality of corporate management by identification of risks, an assessment, and the analysis of their importance, development of measures for their minimization and control of execution of actions for risks minimization.

**Market risks.** Risks of an adverse effect of the change in price for oil, exchange rates, and interest rates belong to market category. The company carries out wholesale supply of oil, both on internal, and in foreign markets. The main possible deterioration, both for internal, and for foreign markets reduction of prices of oil, which differs in considerable volatility owing to a number of factors is: balance of supply and demand, influence and policy of the main oil-producing countries, a political situation in the main regions of production of energy carriers. Decrease in the world prices for oil substantially will affect deterioration of financial performance of the Company. The company doesn't resort to hedging of risks of reduction of prices of oil at the moment, but in each situation uses the internal instruments of management of expenses allowing reducing negative influence of this risk.

**Inflationary risks.** The company conducts the primary activity in Kazakhstan and uses tenge, as the main currency for calculations. The expenses connected with payment of a salary, costs of the electric power, costs of logistic services are sensitive to inflation of tenge.

**Interest rate risks.** Activity of the Company is subject to risk of change of interest rates that can negatively be reflected in the cost of placement of temporarily free money and, respectively, in financial results activity of the Company.

**Currency risks.** Currency risk – fluctuation of exchange rates, which makes multidirectional impact on financial activity of the Company. The considerable part of the income of the Company is nominated in US dollars or attached to US dollar. The part of expenses of the Company is nominated in foreign currency, or otherwise, significantly depends on rate fluctuation of foreign currencies (generally it is US dollar, to a lesser extent euro and ruble) concerning tenge. Now the most part of the current expenses of the Company is paid for the prices established in tenge.

The dollar rate increase will make more profitable oil export.

In case of negative influence of change of interest rates and an exchange rate the Company will carry out the following actions for decrease in negative consequences: – expansion of a circle of bank partners, first of all, at the expense of institutes, the least affected from the current world financial crisis;

large-scale use of the instruments of trade financing (letters of credit, guarantees) allowing to reduce dependence of activity of the Company on base interest rates. Such indicators of financial statements of the Company, which can change in a result of influence of the specified financial risks:

- net profit;
- revenue;
- prime cost
- receivables.

The operations, which connected with the movement of material and cash flows with contractors since the financial institutions serving financial streams of the Company, are subject to credit risks and finishing the buyers of the final products and contractors rendering various company services. The effective centralized control system of money realized by treasury of the Company allows minimizing credit risks [5].

Table 1. Financial risks, probability of their emergence and nature of change in the reporting

Risk	Probability of emergence	Nature of change
Falling of rates on deposits of banks	Normal	Decrease in profit owing to falling of the income on placement of temporarily available monetary funds
Currency risk (risk of devaluation of a rate of tenge on the relation to euro and dollar of the USA)	Normal	Growth of costs of the acquired equipment - increase in depreciation assignments
Inflationary risks	Normal	Increase in debit debt, increase in cost of the made services
Credit risk	Normal	Problem of debit debt

Source: it is made by the author on a basis of data of the official site of KMG

**Tax risks.** The tax system of RK is characterized by small volumes of law-enforcement practice concerning recently adopted normative legal acts. It is also characterized by risk of additional accrual of the taxes, penalties and penalty fee based on illegal interpretation of the legislation. These factors complicate planning of tax expenses of the Company. Management of the Company develops the actions for minimization of the specified risk based on participation in work on improvement of quality of both the most Tax Code, and amendments to it. Besides, the Company continues to defend the interests in courts.

**Change of rules of customs control and duties.** As the Company carries out the foreign trade activity, change of rules of customs control, ITP volatility, lack of a transparent formula of calculation of ITP can have an adverse

effect on financial results of the Company. At the same time, the Company carries out continuous monitoring of changes of the current legislation of RK and considers them in the activity that allows minimizing the risks connected with the specified changes.

**Operational risks.** The main operational risks of the Company occur in the plane of exploration and production and are connected with implementation of continuous activity of the Company. The list of key operational risks, which the Company allocates considerable resources is given below and pays them essential attention for minimization, both in the daily activity, and in the course of planning and an assessment of efficiency of activity.

**Investment risks.** The major factors influencing investment activity of the Company are:

- Limitation of new assets, available to acquisition, on the land in Kazakhstan.
- Increase in the competition from the large international oil and gas companies for access to oil and gas assets.
- Lack of own highly effective service examination giving the chance of KMG to participate in sea projects in Kazakhstan and also attractive foreign projects. Besides, KMG is the largest oil and gas extraction company controlled by the Government of Kazakhstan. In this regard, the state represented by of "Samruk-Kazyna" and KMG Oil Company can have impact on KMG in interests of the state in general, which can contradict interests of shareholders of KMG. All these factors, both separately, and in total, can lead to underestimation/revaluation of appeal of projects, inefficient investment decisions and, as a result, to reduction of a stock rate and falling of cost of the Company.

**Risks of Corporate management.** One of the essential factor, which influence effective activity of the Company decrease, is institutional capacity. Highly qualified personnel is competitive advantage and a basis of achievement of strategic objectives of the Company. Annually the Company faces a problem of attraction of shots with the corresponding qualification. It is connected, first of all, with impossibility of recruiting of the personnel, in view of deficiency of a necessary professional category in labor market in certain regions. A number of measures directed on increase of loyalty, level of motivation and professional level of the personnel is developed for decrease in this risk in the Company. Besides, the essential attention to increase of leader competences of management and to formation of a personnel reserve is paid.

**Fraud and corruption.** Distribution of resources not in the best interests of the Company, causing damage of the Company for obtaining personal benefit, any facts of manifestation of corruption are absolutely unacceptable in activity of the Company regardless of the extent of financial damage. The company takes all possible actions for prevention of illegal activity and causing reputation damage of the Company. The company is subject of the Law RK "About Corruption", and also, come into force in July, 2011, the Law of Great Britain "About bribery" (UK Bribery Act 2010) and builds the domestic policy and procedures in strict accordance with the above-named laws.

Table 2. Financial and economic indicators of JSC "KazMunaiGas"

	2009	2010	2011	2012
ROS	31,90%	30,65%	22,74%	18,75%
ROA	11,98%	13,07%	10,64%	9,56%
ROE	20,96%	20,22%	16,09%	12,02%
Coef. absolute liquidity	0,65	0,58	1,22	0,84
Coef. current liquidity	4,50	3,64	4,02	5,06
The share of ZK in Assets	22,58%	18,84%	15,73%	14,47%

\*Source: Compiled by the author based on annual report of KMG in 2012

From Table 2, a decrease in the turnover ratio for some indicators, in particular: the turnover ratio of assets in 2009 decreased by 0.23 (from 0.65 to 0.42), accounts receivable - by 2.81 (from 13,76 to 10,96). The trend continued in 2010, if not only asset turnover, which increased slightly by 0.03. As for the other coefficients, and although there was a small decline in the turnover rate of stocks in 2009. (from 22,87 to 22,09), in 2010 this ratio increased to 2.54. The turnover ratio accounts payable increased in 2009-2010 by 1.1 and 0.44 respectively. This is a negative factor for the company as a reduction of the coefficients of turnover tells about the slowdown in the turnover of capital and the production process. The economic effect of this factor is expressed in relative release of funds from circulation, and increase revenue and profit. In this case there is a decrease in the release of funds when revenue growth.

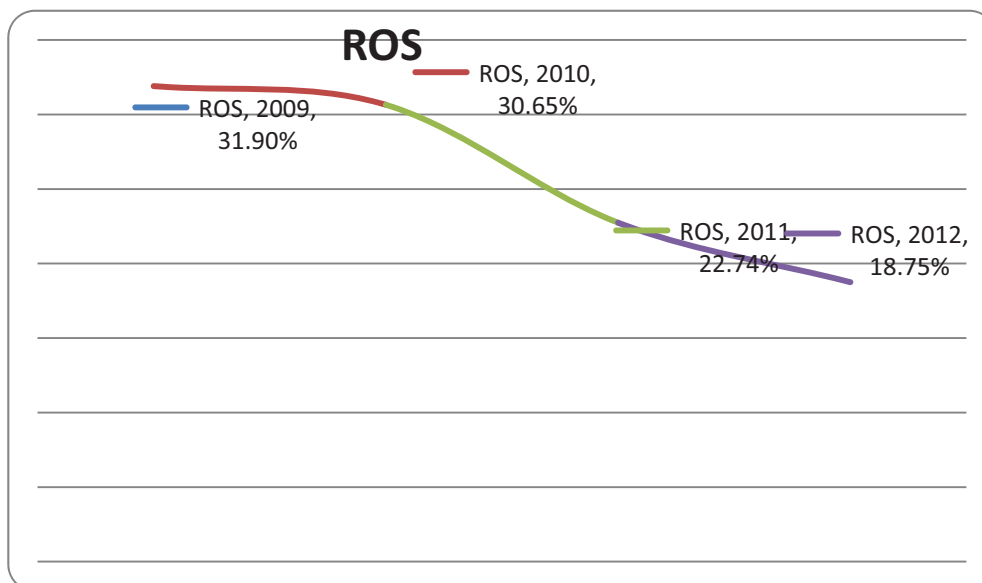


Figure 2. The profitability dynamics of JSC "EP "KazMunaiGas".

In general, by estimating financial and economic indicators of the enterprise, it can be concluded: the financial situation in the normal range and profit growth open up additional reserves. For JSC "EP "KazMunaiGas" it is necessary to conduct activities to reduce operating and non-operating expenses. The coefficient of financial stability - a summary measure, its increase and norm excess are rather a positive factor for the company, because the increase in this ratio speaks a stable position of the enterprise.

**Assessment of the financial risks of JSC "EP "KazMunaiGas" by the method of quantitative estimates of VaR.** The methodology of Value at Risk has become widely spread among financial institutions from the mid 90-ies of XX century. This method was first recommended by the Group of Thirty (G30) in 1993 in "Derivatives: Practice and Principles". Further, a contribution to the study of VaR estimation made one of the largest investment companies J. P. Morgan in the work of RiskMetrics. And, as a result, in 1995 the Basel Committee on banking supervision recommended the VaR methodology as the main approach to risk assessment.

VaR is the value expressed in the base currency, which will not exceed expected during this time period loss with a given probability. VaR is a universal method of calculating various types of risk:

- price risk - risk of changes in value of a financial asset price in the market;
- currency risk - risk of changes in market exchange rate of the national currency to the currency of another country;
- credit risk - risk arising from partial or complete insolvency of the borrower under the loan;
- liquidity risk - risk associated with the impossibility of selling financial asset or the implementation of large losses arising from the disposal of assets due to a big difference of value of purchase/sale of existing on the market.

Traditionally, methods of calculating VaR are divided into:

- Historical;
- Parametric (the variance-covariance model);
- Simulation method (Monte Carlo method).
- Historical simulation method.

Estimation by VAR method of the historical simulation in the classic version is as follows. The original number of indicators is determined in the first stage – value of the portfolio for all documented in the historical period of the states of the market. (In our case daily currency exchange rates change)

In the second stage, the obtained time series is translated into a series of relative changes according to the formula [7]:

$$\Delta_i = \frac{y_i - y_{i-1}}{y_{i-1}} \quad (1)$$

To determine the cost of risk, namely in oil prices by the method of Value at Risk (VaR), were historical annual measure of the price of Brent crude oil. In the third stage, the changes are ordered, and are cleared at the worst part of the values that exceed the established confidence level. The worst of the left value corresponds to the maximum probable loss value within an accepted confidence level, i.e. VaR.

The final fourth stage, the obtained relative VAR is reduced to absolute monetary equivalent.

To determine the cost of risk, namely in oil prices by the method of Value at Risk (VaR), were historical annual measure of the price of Brent crude oil.

VaR is characterized by three parameters:

- 1) The time horizon that depends on the situation under consideration. Documents on the Basel — 10 days, by the method of Risk Metrics is 1 day. More common calculation is 1-day horizon. 10 days is used to calculate the magnitude of the capital covering possible losses.
- 2) Confidence interval (confidence level) — the level of acceptable risk. Documents on the Basel used the value of 99%, in the RiskMetrics system is 95%.
- 3) The base currency in which the indicator is measured.

The calculation begins with the computation of mathematical expectation of daily price changes effective from 01 January 2012 to the present day. Mathematical expectation is the average value of a random variable, the probability distribution of a random variable considered in probability theory. In this case, the mathematical expectation is equal to -0,04%.

Next step is a determination of the standard deviation. Standard deviation is a measure of dispersion of values of a random variable about its expected value. In this case, the standard deviation equals to 1.35%.

Then the Quantile should be found for our model. Quantile in mathematical statistics is the value that a given random variable does not exceed with a fixed probability. To determine the VaR, we apply a probability of 99% according to the Basel documents. In this case, the quantile equals to -3.2%.

So, first, calculate the price for the day ahead according to the method of Risk Metrics. The price of Brent crude oil for April 22, 2013 equals to \$99,07. Multiplying this price by quantile and the value  $X(1) = 95,92$ , it says that in the course of the next day, the price of oil will not fall below the values in 95,92 tenge with a probability of 99%.

According to the Basel documents a time horizon that depends on the situation under consideration is 10 days. Further multiplying this price by quantile and the square root of ten, we get the values of  $X(10) = 89,11$ , it says that in the next ten days, the price of oil will not fall below the values in 89,11 tenge c a probability of 99%.

Therefore, based on the foregoing, the company can predict future cash flows and estimate future price risks for further hedging.

**Stress testing of financial risks of JSC "EP "KazMunaiGas".** Today, in the world of global structural and technological changes, where an incident in one part of the planet can cause the amplitude of price variations around the world, problems occur that it is impossible to predict. Instead of doing financial projections for the method of "best estimates", the company or its regulators prefer stress testing. Stress testing is one form of testing that is used to determine the stability of the system or a legal entity under conditions exceeding the limits of normal operation. Especially the behavior of financial instruments in the case of a specific stressful situation are viewed during stress-testing, for example:

- What happens if stock markets fall more than X% this year?
- What happens if GDP falls by Z% in a given year?
- What happens if interest rates rise, at least Y%?
- What if half of the instruments in the portfolio will be terminated in five years?
- What will happen if the price of oil will increase by 200%?

This type of analysis is becoming more common, and is used by various government agencies (e.g. the FSA in the UK) and intergovernmental organizations (such as the EBA and the international monetary Fund) as the

regulatory requirements on certain financial institutions to ensure adequate allocation of capital to cover potential losses incurred during extreme, but plausible events. The emphasis on the adequacy (adjusted for risk) of the definition of capital has been strengthened by changes in banking legislation (Basel II). Model stress testing usually allow you not only to take into account individual risk factors, but a combination of different events. Usually you can check the current impact of known historical scenarios on the liquidity position of the institution. Models of the stress test show how the portfolio is sustainable in the implementation of forecasts and provide insight about possible vulnerabilities. Although extreme events cannot be predicted, the study of their impact on the effectiveness of the organization strengthens the understanding of the situation. Model of the stress test determines the script that uses a special algorithm to determine the expected impact on the return of the portfolio in the case scenario.

There are three types of scenarios:

Extreme events: as events often use already occurring historical event.

Shock risk factors shock of any factor in the chosen model of risk for a user-defined amount. The impact factor remains the same, and connection with the risk factor is used to assess the return covariance matrix.

External risk factor: a risk factor is any macroeconomic index (e.g., oil prices, real estate prices), or set the index (e.g., exchange rates).

This section is devoted to determining the stability of the system KMG EP to different structural macro and micro-economic risks. The dependent variable in this model will be the annual revenue of the company. The first step should construct a simple model for regression.

Pair regression is a regression between two variables  $y$  and  $x$ , i.e. a model of the form[9]:

$$y(x) = f^{\wedge}(x), (2)$$

where  $y$  is the dependent variable (effective basis);  $x$  – independent, or explanatory, variable (trait-factor). The sign " $\wedge$ " means that between the variables  $x$  and  $y$  there is no strict functional dependency, therefore, almost in every case the value of  $y$  is the sum of two terms:

$$y = yx + \varepsilon, (3)$$

where  $y$  is the actual value of resultant;  $yx$  – theoretical value of the effective feature, found on the basis of the regression equation;  $\varepsilon$  is a random variable characterizing the deviation of the real values of the effective feature from the theoretical, was found in the regression equation.

The selection of data. As previously mentioned, pair regression is a regression between two variables  $y$  and  $x$ . Here to determine the change which metrics are most susceptible to the change of the company's revenues.

Table 3. Factors affecting the change of the company's revenues

Year	Revenue of EP KMG, mln tenge	Brent average price	EUR/USD	Inflation % KZ	USD/Tenge
2000		28,98	0,92	9,80	142,13
2001		25,05	0,90	6,40	146,74
2002		25,41	0,95	6,60	153,28
2003	177 757	31,07	1,13	6,80	149,58
2004	237 103	41,61	1,24	6,70	136,04
2005	346 429	59,40	1,24	7,50	132,88
2006	412 208	69,11	1,26	8,40	126,09
2007	486 975	78,00	1,37	18,80	122,55
2008	604 993	97,22	1,47	9,50	120,30
2009	485 493	61,68	1,39	6,20	147,50
2010	609 242	79,11	1,33	7,80	147,35
2011	721 194	110,91	1,39	7,40	146,62
2012	797 170	112,25	1,29	6,00	149,11

This table shows the data directly and/or indirectly have an impact on the company's revenue. Data evaluation impact is necessary to navigate through the calculation of the correlation coefficient. Correlation is a statistical relationship of two or more random variables (or values that can with some reasonable degree of accuracy, be considered as such).

The correlation coefficient is calculated by the formula [10]:

$$r = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{n \sigma_x \sigma_y} \quad (4)$$

where n is the number of observations, x is the input variable, y is the output variable. The values of the correlation coefficient are always in the range from -1 to 1 and are interpreted as follows:

- if the correlation coefficient is close to 1, then between variables there is a positive correlation. In other words, there is a high degree of connection input and output variables. In this case, if the values of the input variable x will increase, and the output variable will also increase;
- if the correlation coefficient is close to -1, it means that between the variables observed negative correlation. In other words, the behavior of the output variable will be opposite to the behavior of the input. If the value of x increases then y will decrease, and Vice versa;
- intermediate values close to 0 will indicate a weak correlation between the variables and, respectively, low dependence. In other words, the behavior of the input variable x is completely (or almost completely) to affect the behavior of y.

Table 4. Correlation coefficients between the factors

The correlation coefficient of KMG EP's Revenue with Brent	0,97
The correlation coefficient of KMG EP's Revenue with EUR/USD	0,66
The correlation coefficient of KMG EP's Revenue with Inflation	0,02
The correlation coefficient of KMG EP's Revenue with USD/Tenge	0,14

Table 4 shows that the greatest impact on revenue have oil prices only – 0.97 and the Euro/Dollar – 0,66. Performing calculations according to the above calculation of the regression, we obtain the following stress-testing with the following variations in the prices of Brent crude oil:

- 1) when the price of Brent crude oil to \$115 the company's revenue is 779 905 + ε million tenge;
- 2) when the price of Brent crude oil \$80 the company's revenue is 530 376 + ε million tenge;
- 3) when the price of Brent crude oil to \$40 the company's revenue is 245 200 + ε a million tenge;
- 4) when the price of Brent crude oil \$130 the company's revenue is 886 846 + ε million tenge;
- 5) when the price of Brent crude oil \$150 the company's revenue is 1 434 029 + ε million tenge;

Following the stress-testing with regression, will be with variations in the exchange rate Euro/Dollar:

- 1) when the exchange rate Euro/Dollar \$1,15 the company's revenue is 271 499 + ε million tenge;
- 2) when the exchange rate Euro/Dollar to \$1.30 on revenue of the company is 472 501 + ε million tenge;
- 3) when the exchange rate Euro/Dollar at \$1.40 to the company's revenue is 606 501 + ε million tenge;
- 4) when the exchange rate Euro/Dollar to \$1.50 to the company's revenue is 740 502 + ε million tenge;
- 5) when the exchange rate Euro/Dollar \$1,60 the company's revenue is 874 503 + ε million tenge;

As can be seen from the calculations, the company's beneficial to commodity prices were high and the Dollar against the Euro was low. The first situation is extremely clear, the second is that when the Euro is worth more, then the European companies and residents will have more free funds that they can allocate to the cost of petrol, thereby spurring the consumption of petroleum products in the EU.

#### **The strategy of hedging price risks of JSC "KMG EP".**

Hedging is a way to protect against the impact of changes in prices, widely used, when prices are volatile. The concept of hedging is to take a contract position opposite the position from which the associated risk. Therefore, choosing the right strategy during hedging price volatility is associated with which position is hedged. For example, an oil producer may feel that prices will fall, and he needs to fix the future price of sale of the goods at the current level. He can sell a certain amount of futures and forward contracts, equivalent to the value of the goods, which he will deliver if he wants to hedge against a possible drop in prices in the future. Giving preference to this or any other contract, the hedger selects the one whose price most closely consistent with the price charged to them in contracts for the sale of.

The nature of the hedging operation is divided into 2 groups:

- 1) long (long hedge) hedging purchase, that is the conclusion of the consumer/merchant contracts to hedge against the possibility of increasing prices when buying in the future of the relevant product;
- 2) short (short hedge) a hedge of the sale, we have the conclusion of the manufacturer/ goods owner contract to protect against a possible price decline in the sale of future goods, shall be required to supply at a certain date. In the case of price reduction on merchandise loss due to the decrease in the prices of stocks it is balanced by gains from short positions in the futures market.

A perfect hedge is an abstract concept, implying that the hedge on the futures market eliminates the risk of the spot transaction. In principle, hedge, close to the ideal, is possible, but it is believed that genuine perfect hedge - a rarity, because the prices on spot and "paper" transactions never move in parallel. The closer a futures contract or other hedging instrument to the physical specifications of the product, the better the hedge.

Basis risk – change the difference between the price of physical goods and the price of corn futures[13].

The results of the impact of potential changes to the basis for hedgers, covering both short and long positions are presented in Table 5.

Table 5. Results of the effects of changes in the basis for hedgers

	price increase				prices decrease			
Position on spot and "paper" trades	1) Spot grow futures	prices slower	2) Spot futures faster	price are rising	3) Spot futures fall slower	prices fall	4) Spot futures fall faster	price faster
Bought a spot contracts - sold futures contracts	Loss		Profit		Profit		Loss	
Sold spot contracts - bought futures contracts	Profit		Loss		Loss		Profit	

Thus, in the market for "intervention" hedgers-sellers (short hedgers) always profit during time basis, and hedgers-buyers (long hedgers) always lose. For companies that have stocks of goods, there is a real incentive to implement hedging with futures markets. The result is a payment of all or part of the cost of storage due to the futures market. At the same time in the market "bakwagen" short hedgers will always bear the losses if cash and futures prices to converge, and long hedgers will make a profit.

Analysis on insurance strategies price risk allowed us to draw the following conclusions.

1. The crude oil market participants are actively using exchange contracts (sale of "paper" oil) for insurance of risks of price changes on the supply of physical goods. Also forward contracts are used widely, to ensure future supplies with a contract price fixed at the time of conclusion
2. There are different options of hedging strategies (risk insurance). Their choice depends on the market conditions (the ratio of supply and demand).
3. Hedging is an important aspect of the oil trade, as at present oil prices are highly volatile, and the companies, making deals on big expensive party, want to protect themselves from financial loss and get the most profit from the sale of their products.
4. It is impossible to completely avoid price risk, and there is a probability of loss of additional profit, but hedging helps to avoid unwanted financial losses, to provide greater stability and flexibility in planning.

Studying the insurance strategies of price risks for the export of the company allowed to draw the following



conclusions:

1. Most Russian companies are not familiar with the practice of hedging, they formed the wrong impression about it, therefore there is a mixture of the concepts of hedging and speculation and fear of "losing" on the hedge.
2. For a more successful hedging practice companies need the involvement of professional consultants, seminars, and in consequence create their own hedging units, which include specialists in risk management, Finance, accounting and law.
3. Hedging requires an elaboration of its objectives and implementation, contrasting the need for hedging purposes of this particular company.
4. Successful and appropriate adoption of hedging will reduce profit fluctuations, improve the controllability of the production, increase the capital, stabilize the yield.
5. Companies, engaged in export of oil and oil products, have an necessity in hedging due to the unstable prices for raw materials, as well as significant trade volumes, profits and possible losses.
6. It must be remembered that the aim of hedging is not profit, but reducing the financial risks, minimization of potential losses, and hedging assumes full legal and financial validity of transactions.

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# An Analysis of the Difficulties in the Translation of Regional Classical Chinese Poetry-A Case Study on Chongqing's Overseas Transmission

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Received: June 30, 2015 Accepted: July 21, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p326

URL: <http://dx.doi.org/10.5539/ass.v11n24p326>

*This paper is sponsored by the Social Sciences Planning Research Program of Chongqing (NO. 2014YBWX076)*

## Abstract

With the deepening of the cultural exchange in the world, the unified orientation of Chinese literature is struggling in the cross-cultural communication. However, Chinese regional traditional culture has yet attracted more and more attention in foreign academic circles. As one of the local historical and cultural communication media, the translation of regional ancient Chinese poetry has become an urgent problem to solve. This kind of translation has a great significance in the increase of the influence of classical Chinese literature in global contexts. What's more, it plays an important role in making new breakthroughs in regional research and promoting differentiation of academic studies on overseas dissemination of Chinese literary heritage. Taking Chongqing classical poetry as a case, this paper focused on the using of noun, the organizing of meaning and the expressing of allusions to interpret some difficulties in the translation of regional ancient Chinese poems, so that it can provide references for those who study the overseas communication in global contexts of regional classical Chinese literature.

**Keywords:** classical Chinese poetry, regional culture, Chinese-English Translation, Global Context, Chongqing

## 1. Introduction and Background

It has always been difficult to translate ancient Chinese poetry into foreign languages. Although the core reason can be summarized as the differences in history and culture between China and western countries, it can be seen in the translation practice that the manifestation of this difficulty is multi-level, which covers almost all aspects, such as vocabulary, sentence patterns and thought-expressing. In order to convey the original charm of classical Chinese poems, as well as make the readers understand the potential meaning, a detailed analysis of the primary difficulties in translating ancient Chinese poems is required, so that we can undertake relevant research and improvement.

Due to the effect of geography, history, customs, among others, different varieties of poems with local characteristics and vitality were derived from classical Chinese poetry. Study of regional classical verse ought to be made on the basis of this kind of difference, so that we can discover historic differentiated academic directions.

At the end of the 20th century, represented by Professor Yan Jiayan in Peking University, a group of scholars began a full-scale study of local culture. Mr. Yan put forward a new point of view, "Regional influence on literature is a comprehensive one, which is closely connected with humanity factors in this region, and influences and restricts the literature through the middle part between regional cultures." In the 21st century that followed, Research for Chinese regional literature came active. Most provinces and cities have brought out historical literary works which reflect local literary achievements, and find out new problems as well as put forward new ideas in the study of regional literature. Nowadays, research on regional literature is booming. Consequently, diverse Chinese culture is gradually walking towards the world. Not only does it begin to occupy an increasingly important position in the field of theoretical research on world literatures, but also it promotes the communication of regional literature further more in the world.

As a city with the most characteristic regional culture, Chongqing has a massive Ba culture (Note 1) complex. Mountain Culture, Dock Culture, and Three Gorges Culture, etc. occupy an important position in the art of

Chinese regional poetry, hence became the cultural Mecca of poets who created and chanted poems here. Therefore, it is of typical significance to take Chongqing as an example in the study of the global communication of regional classical Chinese poetry as well as its strategy and meaning of overseas dissemination.

## 2. Difficulties in Translation

However, in the process of the overseas transmission of regional ancient Chinese poetry, although numerous, these poems are uneven in quality. Exploring the reasons, we can find that the most prominent problems are the irregular phenomena in the English translation. Such irregularities can be generally analyzed from "Using of noun", "Organizing of connotation", and "Expressing of allusion", namely, analysis of three difficult aspects in the Chinese-English translation of ancient Chinese poems.

### 2.1 Difficulty in Using of Nouns

Chinese character, based on table-shaped objective entity, is compatible with empirical sound, meaning, and form of the logogram, but as a whole, the system remains ideogram. Therefore, literary thinking of Chinese has always been inextricably connected with specific images of the nature, on which basis formed the means of literary expression of "represent one object with another" as well as single-formed and complex-patterned proper nouns. By contrast, English belongs to the Indo-European family, and it is based on the different combinations of the Latin alphabet to convey meaning. To a certain extent, both this language and its culture differ greatly from Chinese characters.

As for the translation of cultural image in classical poetry, the greatest difficulty lies in the integration of "form" and "meaning", which determines that literal and free translations are complementary in the process of translation. Literal translation is used to translate the "form" of nouns. It mainly adopts the means of "pinyin" and "word for word", which require not so much technique of a translator. Free translation is used to solve the problem of "meaning". However, as for how to accurately express the poet's original meaning in the translation, it depends on a high literature attainment and strong ideation. This kind of personalized way of translation is the main cause of non-standard uses of the nouns in the process of translation of ancient Chinese poetry. Moreover, because of China's regional complexity, it is more difficult to balance "literal translation" and "free translation" of the translation of regional nouns. This leads to the ineffective expression of "regional Chinese culture" in the context of English. For example, "巴山"(Ba mountains) in Chongqing had been used by a number of poets in ancient China so as to express their melancholy or nostalgia. Li Shangyin's "Send To North In A Rainy Night" (《夜雨寄北》) is most famous:

君问归期未有期，巴山夜雨涨秋池。  
何当共剪西窗烛，却话巴山夜雨时。

This poem uses night rain of Ba Mountains which are in Chongqing to express the poet's deep melancholy. Through the expressions like "night rain of Ba Mountains", "candle at western window" and so on, the poet made readers blend in with the scene, as if the scene became alive. In the four lines of the poetry, "Ba Mountains" was used twice, which might refer to Mt. Jinyun in northern Chongqing nowadays. But there are different forms of translation, which bring about different reading experience. For example, British Sinologist Herbert A. Giles translated it as:

You ask when I'm coming: alas, not just yet.  
How the rain filled the pools on that night when we met!  
Ah, when shall we ever snuff candles again?  
And recall the glad hours of that evening of rain?

With reference to the translation, we can see that Giles didn't accurately express the original images. In the second line Giles didn't literally translate "Ba Mountains", but used "when we met", this conception of time instead, leaving the original meaning in the clouds and fogs because of his subjectivity. Similarly, in the translation of the third line, the phrase "candle at western window" was simply translated into "candles", with "the western window" vanished. That's not accurate enough in terms of literal translation, and it was far from the emotional tone of the original text. What's more, in the original poem, "autumn" and "rain" are two nouns, which were saturated with images of a kind of desolation. In the process of translation, however, Giles just translated the word "autumn pool" into "pools", which made the translation only retained the "rain" image, but left out the image of "autumn", thus greatly weakened Li Shangyin's expressing of loneliness in his poem.

These images were not the poet's impromptu, but a result of being moved by the rainy and sentimental Ba Mountains. However, the mutual infected melancholy emotions between the poet and Ba Mountains around

Chongqing were nothing left in Giles' version, while the special cultural atmosphere based on the specific geographical environment of Chongqing was thin and weak. In this regard, Chinese scholar Xu Yuanhong translated it as follows:

You ask me when I can return, but I don't know;  
It rains in western hills and autumn pool overflow.  
When can we trim by window side the candlelight?  
And talk about the western hills in rainy night?

Through the analysis of this version, we can find that "Ba Mountains" was translated into "western hills" by Prof. Xu. This kind of alienate handling expressed the intention of the original poem and it was understandable as well. Meanwhile, "western hills" is also used in the last sentence. Though the original implicit style has been maintained, it lost the poet's clever attentiveness to personate the Ba Mountains which were far away from his home. Similarly, in the translation of "candle at western window", Xu's translation "by window side the candlelight" was only slightly better than that of Giles'.

In addition, the scholar Lin Yutang translated the second and fourth lines as "The night rains on Mount Pa swell the autumn pool", "And talk to the time of the night rains on Mount Pa". In this version, based on the Wade-Giles Romanization, the most widely used system of transcription in the English-speaking world for most of the 20<sup>th</sup> century, "Ba Mountains" was translated into "Mount Pa", which was more relevant to the pronunciation of the original. But the difference in geography and history also make English readers feel more difficult in understanding.

By comparing the above three versions, we know that although they are all close in the expression of vocabulary to the original poem, the implications that conveyed are totally different. This leads to the phenomenon that Li Shangyin's poem conveys different emotions in different translations, making the English reader unable to accurately understand the VIVID effect created by the original poet through "refined word".

## 2.2 Difficulty in Organizing of Connotation

Prof. Xu Yuanhong once mentioned the standard of "Three Beauties" in poetry translation in his monograph, *The Art of the Translation*, and he pointed out that:

Among the "Three Beauties", beauty of meaning or connotation is the first priority, and beauty of sound takes the second place, while the last one is the beauty of form. That is to say, translation is the creation of beauty, in which process spirit weighs more than shape, and the beauty of meaning that poems convey is where their essence lies.

The connotation of classical Chinese poetry is a unity of subjectivity and objectivity, a blend of emotion and scenery, a poet's sublimation of art when he was under the specific historical and cultural background, and an aesthetic creation by concise language and actual virtual transform techniques. Therefore, when one is translating classical Chinese poems, the problem of how to convey the abstract meanings with a particular cultural connotation becomes the most important and difficult aspect for him to grasp.

For example, the Three Gorges of Yangtze River in Chongqing, which have been chanted by generations of poets, have become China's important historical and cultural symbols, representing the hardships and dangers and majestic momentum. This cultural imagery is the cultural reflection of Chongqing's unique geographical factors and their effects on production and human lives. It is also a kind of regional culture formed by long-term history accumulation. This can be seen in Li Bai's poem, "The Early Sailing From White Emperor Town" (《早发白帝城》):

朝辞白帝彩云间，千里江陵一日还。  
两岸猿声啼不住，轻舟已过万重山。

In the first part of this poem, "return in one day" is exaggerated in space and time, which shows Li Bai's romantic characteristic extremely. "White Emperor Town" and "Jiangling" are located respectively in nowadays Fengjie County of Chongqing and Jingzhou City in Hubei. The Three Gorges of Yangtze River are between the two places, along which the road is extremely complex, which can be known from another poem of Li Bai's—"Difficult Roads of Shu" (《蜀道难》). So, Li Bai used the exaggerated expression "return in one day" between the two well-known locations so as to express his majestic heroism, which was the unique connotation construction way used in ancient Chinese poetry. However, in the process of translation, translators are unable to explain the historical origins of Chongqing's local characteristics clearly to make readers realize the inner

emotional connection. This brings difficulty for the translation of classical Chinese poems to convey their connotations.

The following is two translated versions of the first couplet of this poem:

Leaving at dawn the White Emperor crowned with cloud,  
I've sailed a thousand miles through Three Gorges in a day.  
——by Xu Yuanchong

In the morning I leave Po Ti perched in the clouds,  
The thousand li to Chiang-ling are compressed to a day.  
——by Liu Shishun

Comparing the above two versions, we can find that different translators emphasized different aspects when they were translating. Among them, Prof. Xu agreed with Dr. Liu in the form of translation in general; but the translations of "白帝城" and "江陵" were different. Dr. Liu focused on pronunciation and transliterated them as "Po Ti" and "Chiang-ling" respectively based on Wade-Giles Romanization we mentioned before, while Prof. Xu translated as "White Emperor" and the "Three Gorges". Between them, "Chiang-ling" and the "Three Gorges" are two totally different ways of translation. Although "Chiang-ling" sounds familiar to Chinese, it is not the same for English-speaking readers. Prof. Xu translated it as "Three Gorges", a place people all around the world know. Compared with the original text, it showed the long distance between Baidi Town and Jiangling indirectly, and conveyed a great momentum as well.

From the foregoing discussion, we can find that various translations of different translators show diverse understandings of the original poems, and emotions that the translations convey to the readers also vary. Between the original classical Chinese poem and its translation, there is a relationship of "original to translation" and "translation to original", while the former is the more important foundation of these two kinds of relations. On the one hand, various tests indicate that the fitness between the translated work and the original is in the "translation to original" relationship, while the standard is the original work. On the other hand, because of the difference in language structure and cultural concepts of English and Chinese, English readers' understanding of the original ancient Chinese poems is also in the process of "translation to original", which put them in a passive position in accepting and understanding. In these two aspects, the basic requirement of handling the relationship of "translation to original" is to use Chinese as a benchmark, which requires the translators to make every efforts to go up closer to the true meaning of the poem.

### 2.3 Difficulty in Expressing of Allusions

In some way, an allusion is a "high enrichment" of some typical historic events in China for thousands of years, which is a symbolic representation of concepts. Generally, it can be divided into two forms: historical and literary allusions. Historical allusion refers to using ancient myths, legends, tales, fables and so on to tell what the poet wants to express in real situation; while literary allusion refers to quoting poetry, prose, lyrics, etc., in other words, to borrow someone else's words to express one's own feelings. Allusions are used mostly in order to suggest the poet's implied meaning beyond the poem and "vivify" the expression of the spiritual purpose of the entire poem.

At present, even the Chinese academic circle can't always give a completely accurate explanation of the allusions in Chinese poetry, let alone ordinary people. When reading a poem, in order to understand, at least roughly, the allusions in it, people need to have accumulated certain historical knowledge or have to refer to a reference book. As for translating allusions in classical Chinese poems into English, it is necessary for the translator to stride across the gap of multiple cultures and history, instead of translating by explaining the nouns literally.

For example, the "Diagram of Eight Formations(八阵图)", located in Fengjie County, Chongqing, is a famous Chinese historical allusion used in *The Romance of the Three Kingdoms*(《三国演义》). It is used as a symbol of a high degree of intelligence and strategy, because it embodied the thoughts of traditional Chinese Legalism and *The Book of Changes*. Though this allusion is well known in China, it is quite difficult to translate it into English. Du Fu has a quatrain named "The Diagram of Eight Formations":

功盖三分国，名成八阵图。  
江流石不转，遗恨失吞吴。

The first couplet in Du's poem was translated as:

His deeds overshadowed a land split in three,  
His fame was achieved in these Eight Formations.

The translator is an eminent scholar in Chinese poetic studies, Prof. Stephen Owen. Even if the allusion “the Diagram of Eight Formations” was left alone as it was with no further explanation, Chinese readers are able to understand what Du Fu wanted to present here: to speak highly of Zhuge Liang’s achievements. However, after comparing various translation methods, translators may find that the extensibility of translation on this line is limited—it is hard to avoid literal translation. Prof. Owen translated it as “Eight Formations” in the context of English. Although it was the most reasonable way of translation, it was difficult for English readers who have quite little accumulation of Chinese history to understand the profound purpose of the poet.

### 3. Conclusion

Facing the three difficulties in the translation of classical Chinese poems, we must clearly realize that it is an inevitable problem that needs to be treated seriously. Not only is it closely related to the correct expressions of traditional Chinese culture, but it has something to do with the correct direction and methodology of traditional Chinese culture in global contexts.

As a city abundant in characteristic and diverse culture, Chongqing plays a significant role in the history of classical Chinese literature. Its various geographical landscapes, historical figures, and historical events had been chanted by poets from generation to generation. The translation of Chongqing classical poetry may solve the problems of nouns, connotation and allusions in the overseas transmission of the classical poetry in western China. It can also set an example for the overseas transmission of other regional classical Chinese poetry, and thus make Chinese classical culture well-known around the world.

Nowadays, multi-culture communication in China is booming. Attentions should not only be paid to the promotion of Chinese classical culture, but also to the regulations of translation of classical works. Only in this way can we make sure that Chinese classical culture won’t be altered or lost in the process of transmission.

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### Note

Note 1. Ba is a the feudal state which mostly distributed centered on Chongqing and Eastern Sichuan in Spring Autumn and Warring States Periods (770B.C.-221B.C.).

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# Inferior to Non-humans, Lower than Animals, and Worse Than Demons: The Demonization of Red Shirts in Thailand

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Received: July 7, 2015 Accepted: July 25, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p331

URL: <http://dx.doi.org/10.5539/ass.v11n24p331>

## Abstract

Attempts to demonize and dehumanize the Red Shirts, the largest pro-democracy group in Thailand, have been evident since the 2006 coup d'état that deposed Thaksin Shinawatra as prime minister. In this article, the author discusses the origins of the Red Shirts, and argues that the formation of the Red Shirts was in reaction to unbearable injustice in Thai society. Applying Giorgio Agamben's theory of bare life and qualified life, the author shows that the Red Shirts have been stripped of their political life and status in Thai society. The author discusses the hate speech and brutal tactics used against the Red Shirts both before and after the massacre of 2010 in which over 100 people died, which occurred during Red Shirt protests against the Democrat-backed Abhisit Vejjajiva government. The elite and middle classes, as well as the Army, incite hatred against the Red Shirts through the use of propaganda that depicts them as disgusting beings in order to justify their eradication. However, contrary to popular belief among the elite and middle class, the author argues that Red Shirts are rational in their thinking towards democracy, and are not primarily motivated or controlled by money as voters. Above all, the author concludes that the Red Shirts have been treated unjustly by the elected government they supported between 2011 and 2014.

**Keywords:** Red Shirts, Demonology, Conflict, Violence, Hate Speeches, Thailand

## 1. Introduction

On August 11, 2014, Yingluck Shinawatra, Thailand's former prime minister (2011-2014) who was overthrown in the May 2014 coup, returned to Thailand from a holiday abroad. On this same day a building collapsed in Pathum Thani, a province bordering Bangkok, killing fourteen people. A group of Shinawatra opponents slandered her by inciting hatred in the social media, saying the building collapsed at the exact moment Yingluck returned and claiming she brought misfortune to Thai society. A few months later Thaksin Shinawatra, former Prime Minister (2001-2006) who was also overthrown, welcomed his daughter's new twins, social media filled with curses and senseless spiteful words directed toward the babies purely because they were two new members of the Shinawatra clan.

What do these two incidents show us about Thai society? First, it is not merely these two people who are the victims of hatred by elite and the middle class. Supporters of Thaksin and Yingluck Shinawatra and proponents of inclusive democracy, known also as Red Shirts are also subject to a lot of hatred. The Red Shirts are predominantly middle and lower-middle class Thais from the provinces in North and Northeast Thailand that are home to the majority of the Thai people. The hatred endured by the Red Shirts is not regular hatred toward a political or human enemy, but a distorted kind of hatred that manifests as if the Red Shirts were not human, but rather demons or beasts. The omnipresence of this hatred in Thai society leads to the perpetuation of physical, political, and psychological violence against the Red Shirts (Note 1).

## 2. Demonology: Inferior to Non-humans, Lower than Animals and Worse than Demons

In order to understand how the Red Shirts became so hated and regarded as so inferior, it is important to understand the processes by which the demonization of a group of people can occur, as well as the process by which an entire group of people can become politically excluded from their own society. Chaiwat Satha-Anand (2004), a peace scholar, said, "A condition for peaceful politics with compassion and care relies on the fight against demonology which depicts people who are different as non-people or even non-human." A variety of

conditions make the use of violence by citizens and by people in power towards people who are different possible and accepted in Thai society, especially the creation of distance between those who use violence and the victims of that violence. The result is that the people who use violence do not feel the effects of their actions on the victims. They make the victim anonymous or even non-human; victims are “the others” and not “good people” in society. Furthermore, the use of euphemistic language in reference to the use of violence minimizes the effects of that violence on its victims. These things make the use of violence accepted in society.

Additionally, “demonology” works through “distribution of the sensible.” As Jacques Ranciere explains, “distribution of the sensible” is the process by which sociopolitical perception is reproduced and determined. This process encompasses representations of certain people or ideas in the media, in the political realm, and in all aspects of society, because the sensible refers to those things which can be understood through the senses. If a certain groups consistently represented as outsiders, as bad, or as worthy of having violence perpetuated against them, then this notion is reproduced and may become accepted and go unchallenged. In the case of Thailand, demonology, combined with an established perception that those who are not people either can be killed or should die, has the potential to make issues including extreme violence toward some members of society, even killings, seem normal or acceptable. Demonology can also create within political society the sense that raising questions relating to the deaths of others is inappropriate, and that it is acceptable to hate someone without *a priori* cause or without personal experience or interaction with them.

In addition to the demonization of some members of society, which is perpetuated through the distribution of the sensible, demonology is also tied to the political order – and the exclusion of those who are demonized from that political realm. Giorgio Agamben’s theory of “bare life” helps to show how political society can destroy or eliminate people who are labeled as worthless. Agamben divides life into two categories: *zoé* or “physical life” and *bios* or “political life.” Agamben showed that *zoé* has the status of “bare life” in its relationship to the political state. Bare life refers to a person whose political and legal identity is stripped from them by the suspension of laws that protect their political status. Those who exist in a state of bare life are both outside of the sociopolitical order, and yet integrally connected to it, because they can only come to be defined in such a way by an act of the state or sovereign power, which, through the suspension of laws that would have protected their lives and liberties, turns them into expendable physical beings with no political recourse. *Zoé* has no relation with political forms. In Thailand, suspension of the law has often been achieved by the imposition of martial law, a legal system that in effect suspends the rights of all people, and allows the military to choose to selectively enforce its rules against those that threaten it. Martial law thus allows the military to determine whose lives are bare and unprotected, and who can still act political and expect protection from the state. This expendability makes those bare lives extremely vulnerable. Violence, even murder, can be perpetuated against those who have been excluded from the state, and those perpetrators have nothing to fear in terms of retribution from the state, because bare life has lost the legal protection of the sovereign.

On the other hand, *bios* is qualified life, and refers to those who “count” in the sociopolitical realm. Those with the status of *bios* are still under the protection of laws that protect both their political status and their personhood; they have not been excepted by the sovereign power’s suspension of such laws. Agamben argues, in contrast to social contract theory, that the sovereign power does not actually protect all lives within its domain, but can withdraw protection and leave bare lives, lives without the rights necessary to lead to a humane, qualified life. Those with the status of bare life, who have lost the protection of the state or sovereign are seen as disgusting and revolting, and have moved into a violent and insecure zone. Exterminating or killing these people—bare lives—is then not difficult, because the sovereign power structure is tied in with legal suspension of the political life and rights of these people. The historical and continued treatment of the Red Shirts exemplifies this demonization and qualification of people as *zoé*, as elaborated below.

### 3. History of the Red Shirt Movement Formation in Thai Society

The election of February 6, 2005 is regarded as a milestone in the history of Thai politics. This is because the Thai Rak Thai party led by Thaksin Shinawatra won the election in a landslide with 19 million votes, winning 377 representatives of the total 500 seats in parliament, and putting Thaksin into power as prime minister for a second term. During the four years prior to this election, there had been huge changes for villagers in rural areas, thanks to Thaksin’s policies, which for the first time were directed toward the rural poor. With populist policies and injections of money into a variety of projects, many villagers experienced higher incomes and better living circumstances. Thaksin’s management style was characterized by impatient, quick decision making, and the centralization of power.

In 2006, however, the Thaksin government had to dissolve parliament due to pressure from protests by the



People's Alliance for Democracy, also known as Yellow Shirts. These protests had begun in late November 2005, when the Democrat Party and Yellow Shirts demanded a royally appointed prime minister to replace Thaksin, an unconstitutional act which was therefore impossible. The protests had begun in response to allegations that Thaksin did not pay taxes over the monetary gains from selling his family company to Temasek Holdings (Government of Singapore Investment Corporation), despite the fact that it was not illegal. The majority of protestors were from the elite and middle classes in Bangkok and the South, which supported the opposition Democrat Party that did not agree with Thaksin's business-style management of the government. After the dissolution of the parliament, new elections were scheduled and held on April 2, 2006, but the Yellow Shirts protested, and Democrat Party members boycotted the election and refused to vote. The Thai Rak Thai party still received 17 million votes in the election, but the constitutional court later ruled that the election was invalid because the Election Commission had organized the election so that election booths were exposed and voting was visible to bystanders. After the protests that followed, the army carried out a coup d'état while Thaksin was attending a UN conference in New York on September 19, 2006.

After the 2006 coup, the political elite in concert with the military have been attempting to design a political system free from Thaksin and his supporters. Interventions like the abolishment of the Thai Rak Thai party and the drafting of the 2006 Constitution, which is a hollowed out democracy or democracy without *demos*—the people—give power to institutions which have no links with the people. This is especially true for the judicial court and independent organizations. The atmosphere at the constitution-drafting referendum was full of threats under martial law and all kinds of efforts were made to undermine and destroy the group that still supported Thaksin (McCargo, 2008). Yet, after the elections of December 23, 2007, the People Power Party, which had formed from the banned Thai Rak Thai Party, received the majority of votes, winning 223 seats versus 164 for the Democrat Party, the opposition. But the position as prime minister was not held long by Samak Sundornvej before the Constitutional Court ruled his appearance in a televised cooking show unlawful, and impeached him. Then, Deputy Prime Minister Somchai Wongsawat became Prime Minister. His short career was abruptly ended when the Constitutional Court ruled that the People Power Party was to be dissolved immediately, on December 2, 2008, after the Yellow Shirt supporters seized control of the government house, Don Muang airport and Suvarnabhumi international airport on November 24, 2008 and held them through the dissolution until December 3, 2008.

The network of elites, who support and shore up the coup regime in the eyes of the middle class and media, overlook the grassroots people, who are the majority of voters of the country, regarding them as if they do not exist. This disregard for the will of the people extends to the army's interventions in politics. In 2008, the army intervened to support the Democrat Party of Abhisit Vejjajiva and make him prime minister. While the Democrat Party did not have the majority of votes, the army used threats to force a group of People Power Party members to form a coalition government with the Democrat Party (The Economist, 2008) and bring Abhisit to power.

Moves like this made the Red Shirt supporters feel that they were merely the "servants" under the control of a bureaucratic polity. This feeling is clearly reflected in a speech by Nattawut Saikua, leader of the Red Shirts, on December 30, 2008. He said: "We do not have many things, we have no chance of justice, we have no chance of being treated well by government organizations, we have no chance of a forum for presentation of information from the media, we have no chance to announce that our battle is a clear, honest, straight forward battle [...]. And most importantly, our brothers, please rest assured and remember that we do not have any connections..." (ModernThaiDemocracy, 2010).

During that time, the Red Shirts movement continually organized campaigns to pressure the government. However, the unrest, which started in April 2009 and is also called "the Bloody Songkran" (the Thai New Year, called Songkran, is in mid-April). The Red Shirt leaders demanded the resignation of number of privy counselors (advisors to the King) because they were not politically neutral. Similarly, they demanded that Abhisit dissolve the parliament because it was formed unconstitutionally. The situation escalated to the extent that violence was used to suppress and break up the protesters; seventy people were reported wounded and although Abhisit said this incident saw no casualties, the Red Shirts believe many people were killed and their bodies hidden by the army (Yimprasert, 2013). The following year the most violent political tragedy in the history of Thai politics broke out.

The Red Shirt group mobilized for a massive movement from March until May 2010 to demand that the government dissolve parliament. When the protests started, about 70,000 Red Shirts gathered at Phan Fah Lilat Bridge on Bangkok's Ratchadamnoen 2 Avenue to symbolically donate 300 liters of blood to call for democracy and justice as well as to challenge the inequality of power in Thai society. Although there were daily reports of violence on the side of the government and the protesters, large scale violence erupted on 10 April 2010 when

the army attempted to break up the protesters, resulting in the deaths of 27 people and injuries to over 1,400 (Khoasod Editors, 2010). The climax of the violence was from 13 to 19 May 2010 when a large number of Red Shirts were killed, including those six who died when the army randomly shot into the Pathumwanaram temple, despite the fact that the abbot had requested the temple be treated as neutral ground. Although a large number of photos show that soldiers shot randomly into the temple, Suthep Thaugsuban, Deputy Prime Minister and Head of Security Affairs, who was in charge of devising security strategy, lied and claimed that the shooters were not soldiers but criminals (Khoasod Editors, 2010).

The incidents took the lives of 94 people and caused a number of injuries which later brought the number of deaths to 99 people. Eighty-two people were killed by bullets, 32 of whom were shot in the head. The violence left thousands injured and many crippled. The government spent more than three billion baht (\$100 million US) to control and disperse the Red Shirts by mobilizing 67,000 soldiers. More than 700 million baht (\$23.3 million US) was spent on 25,000 police officers, and the actual total number of bullets used was 117,932 (People's Information Center, 2012). At the same time, 1,857 Red Shirt supporters were incarcerated and accused of violating the emergency law and burning city hall. The Missing Person Information Center of the Mirror Foundation reported that 50 people went missing from 19 May until 16 June 2010 and tens of people were arrested for *lèse-majesté* (Khoasod Editors, 2010).

According to history professor Nidhi Eoseewong (2010), the most important incidents were in April 2009 and April and May 2010. He said: "The overall picture of the two incidents during Bloody Songkran: the 'Thai state', in the eyes of the Red Shirts, was robbed because a select group of elite conspired with the government and the military to form the Abhisit government in a military barracks. Therefore, they had to fight against the elite in power. But during this uprising (2010) it seems that the vision of the Red Shirts became clearer; the elite who denied the people democracy is not merely a group of people but is imbedded in the superstructure which tightly dominates government and society." This superstructure consists of a variety of sectors from the conservative elite, the middle class in Bangkok and civil servants, especially the army which have coordinated and supported the killings of Red Shirts.

The violence of the protests cut important ties between Thais. It would be a fantasy to believe that the scars inflicted upon Thai society from these incidents will disappear. Going home empty handed on the last day of the protests, May 19, when the military cracked down and dispersed the last of them, left a number of Red Shirts feeling angry and scared at the same time. This disheartened feeling was caused not only by the killings of a large number of comrades with the same ideology, and the imprisonment of others, but also by the suspicious deaths of leaders and guards in Nakhon Ratchasima, Udon Thani, Sisaket, Pathum Thani, and Chiang Mai. Some were brutally assaulted and left handicapped; there were arrests and accounts of intimidation of academics and activists as well as a number of volunteers who witnessed the events; villagers received threats by post calling on them to stop the activists, and the Internal Security Operations Command sent soldiers to patrol villages of protestors in a thorough search for intelligence. In addition, the government announced arrest warrants for 50 Red Shirt protesters, 37 of whom were deemed terrorists; some were wanted on multiple arrest warrants; some were already incarcerated; and some were already dead but their names still remained on the black list (Matichon Weekly, 2010).

Usually, violent unrest in the capital leads to changes in government. This pattern was set in incidents in October 1973 and October 1976 as well as in May 1992. In contrast, following the incidents in April / May 2010, the government stayed in place for more than a year, perhaps because the deaths of the victims of these incidents were not given the same importance in the eyes of the elite and the middle class as the deaths of people with prestige (Mukdawijitra, 2010). Therefore, the elite and middle class expressed their support for the abuse or suppression of "worthless people" with both physical and verbal violence.

The image of the Red Shirt leaders created by the conservatives is diverse. People disgusted with the Red Shirts say they are dirty, disgusting, lowlife, mean, black, provincials, unrefined, and scary (Winichakul, 2010). The Abhisit government repeatedly said that the Red Shirts were terrorists; however, Chounporn Chaimongkol, a Red Shirt member from Chiang Mai asked, "How could the government think of the word terrorist? How can good villagers and fried banana vendors be terrorists? All we want is justice back" (Khoasod Editors, 2010). Especially after the intensification of protests and incidents of April 10, 2010, at the Raja-Prasong Intersection, an important economic center surrounded by department stores, luxury hotels, and high-end stores by protesters from the working class and provinces who do not have the elegant and well-dressed look of people in the capital, middle class Bangkokians became increasingly scared. Because of their fear, it was easy to stoke the belief among the middle class in Bangkok that the Red Shirts fit the profile of terrorists (Na Songkla, 2012). Above all, a large number of traditional elites believe that the Red Shirts are not Thais, as the Red Shirts do not accept the

unfair and the political inequalities which are at the heart of being Thai – embodied in the concept of “Thainess.” In a column on nationalism and ethnicity, columnist and retired professor of history Nidhi Eoseewong remarked on the 2010 massacre that the “Killings and injuries are remembered less than the remains of destroyed buildings” (Eoseewong, 2011).

The Red Shirts are seen as different and they are always portrayed in whatever disgusting ways opponents can conjure, most especially as the “people who overthrow the monarchy.” Under the Abhisit government, which promised to protect the monarchy against plots to overthrow it, a fabricated “Chart of the network to overthrow the monarchy” falsely implicated Red Shirt leaders in a plot to do away with the royals. Kraisaak Choonhavan, member of the parliament for the Democrat Party, once said, “The Red Shirts are Thaksin loyalists [as opposed to royalists]. They are a group of extremists, socialists, republicans, leftist academics, and somehow they are difficult to get through to” (Prachathai, 2010a). Kamnoon Sidhisamarn, an appointed senate member said, in a somewhat internally contradictory statement designed to insult the Red Shirts: “They are overconfident capitalists and bad tempered communists who join to reduce the role of the monarchy and create a new Thai state” (Manager Daily, April 10, 2007). There are metaphors relating Red Shirts to various animals as well as slaves who lack the capacity to think for themselves. When Red Shirts donated blood in order to make their demonstrations in the early phase of the protests, they were harshly criticized for being dirty and unhygienic. In addition, government leaders said the blood was mixed with water and that it was human blood mixed with pig blood, that the blood was infected with HIV and that the actions of the protestors were Khmer sorcery rituals and black magic. Each of these rumors can be seen to play on fears both of disease and difference, aligning the Red Shirts with symbols that are not part of Thainess. This can be summarized through the words of Pichet Punvichartkul, member of parliament for the Democrat Party who said the Red Shirts are “demonic animals that burn the city and burn city hall and pour human blood mixed with animal blood in front of the Democrat Party building and Government House. They shoot and assault soldiers and the royal institutions” (Thairath, April 6, 2012). Similarly, during the protests there were signs written by the people of Bangkok saying, “Country folk get out” (Winichakul, 2010), “Rags get out” (Prachathai, 2010a), and which called the protestors “door mats” (Ploygamphet, 2010).

In addition, the protestors were portrayed as having no ideology or sophisticated political aim or understanding, described as “hired mobs, mean barbarians drunk on liquor and ... not a group of people with ideologies like the Yellow Shirts” (Sunan Srijantra, 2010). On April 30, 2010, Red Shirts entered Chulalongkorn Hospital, one of the more expensive and well-known medical facilities in Bangkok, to look for snipers whom they thought were on the roof of the building. Newscasts showed the fearful reactions of the people of Bangkok; hospitals were normally off limits to the protests. As Thongchai Winichakul (2010), a professor of history at Wisconsin University, commented on the news reports emanating from Thailand, the Bangkokians regarded the protestors as “germs that spread throughout the Thai political body.” Even after the protests ended and the protestors had been broken up, Yellow Shirt representatives led by Tui Sittisomwong, a medical doctor, patrolled to oversee the exit of protestors from the protest sites in queues, to ensure they actually returned to their provinces and did not return to disrupt the daily lives of Bangkok citizens. Both before and during the 2010 protests, doctors at leading hospitals in Bangkok had refused to treat the wounded if they were Red Shirt protesters, meaning that the hospitals were off limits not only as sites of protest, but even as sites for needed medical attention.

In short, we can see that demanding democracy and insisting on the principle of person, one vote in determining their own political fate is really pricey for ordinary citizens. Furthermore, after the May 2010 massacre, Thai society fought an additional battle, this time against the protestors, demeaning their protests by perpetuating stereotypes in which the victims become the perpetrators, the betrayers, and the offenders, while at the same time imagining the government and army as righteous victims of the Red Shirts. The suffering and trauma of the Red Shirt victims therefore became nothing more than a laughing matter.

After the suppression of the Red Shirt protests, the Truth for Reconciliation Commission of Thailand (TRCT) was established. The TRCT published its final report on the 2010 protests in 2012. Additional reports were written and released: on the protests, by the National Human Rights Commission of Thailand (2013), on reconciliation, by King Prajadhipok’s Institute (2012), a research institute of the Thai parliament. King Prajadhipok’s Institute also lead a project called “Public Forums Nationwide for National Reconciliation,” with financial support to the tune of 168 million baht (\$5.6 million US) from the Yingluck government between June and July 2013. Nevertheless, none of the reports, which researched the events of the 2010 protests and violence, invited the Red Shirts victims to participate in the reports’ creation. They were ignored and overlooked, not interviewed or contacted for their input; therefore, Thai society disappointingly lacks knowledge of “the voice of the voiceless.” Prach Panchakunathorn (2013), a lecturer from Chulalongkorn University criticized the TRCT,

saying that Thailand “does not have a truth [and] reconciliation committee which is internationally recognized; [it] places importance on government officers (the main accused) and [it] does not place importance on the words of the victims and their family members, nor witnesses.”

Above all, the attitude of the people involved in the suppression of the Red Shirts is such that they pretend nothing ever happened. Especially the former prime minister, Abhisit, who has never apologized for the violence, in an interview with BBC reiterated that, “We have never even tried to break up the protests; we just set up checkpoints and street fights broke out. It was bad luck that people were killed.” The reporter further asked, “Do you accept partial responsibility for the deaths?” Abhisit answered, “No.” However, he did admit to being the person who ordered the use of live ammunition, saying that he does not regret the use of force because it was a way to deal with armed forces (the protestors). Abhisit also stressed, “Let me say that I have joined conferences all over the world and in the case of G20 summits, there are some people who get killed because officers try to carry out their work. And there have to be inquiries into the deaths to prove whether the deaths were lawful. But the prime minister does not take responsibility for what happens” (YouTube, 2012). Thus Abhisit does not deny that protestors died by the bullets of soldiers guns, but instead compares himself to other world leaders whom he considers “above the fray” of the political scuffles that take place in the streets.

The suppression of the Red Shirts protests of 2010 used more force than necessary and there have never been signs of accountability for those who were responsible for the killings, nor any justice for the dead. An important question is why the Abhisit government and the army broke up the Red Shirt protests so harshly. Even during the period of the Yingluck government’s compensation policy these questions were never really answered. Between 2011 and 2014, the Yingluck government had in place a policy to compensate victims of violence during the political protests that took place from 2006 through 2010. People from all sides were eligible to receive compensation, and the government paid 7.75 million baht (\$258,300 US) in financial aid to the families of those killed, and smaller amounts based on a compensation schedule to those who were injured, regardless of the color of their shirts. Nevertheless, there remained signs of distrust and many people said that the Red Shirts who had died were looking to get killed.

Specifically, many Yellow Shirt and Democrat Party leaders accused people of pretending to have been injured or hurt in order to receive government compensation. Furthermore, they insinuated that the promise of compensation would instigate more protests, thereby downplaying the idea that the original Red Shirt protestors were legitimately mobilized by their political grievances, and insinuating instead that they were looking for payouts. Chuan Leekpai, former prime minister and an advisor to the Democrat Party stressed that “Thaksin should pay his own money to remedy [the wrongs against the Red Shirts] because they are on the same side.” Vorakorn Chatikavanij, wife of Korn Chatikavanij, Deputy Head of the Democrat Party said, mocking the way in which people quickly received money that the Red Shirts had discovered “a new kind of business with good profits... the business of demanding democracy.” She claimed that, “Whomever did not die or get injured has another way: to pretend to be crazy and let relatives ask for money,” and furthermore that those who had dishonored the dead should pay compensation on their own: “If you feel bad that you stepped on dead bodies, just pay [your] own money to them.” Matichon, January 13, 2012). Similarly, Chai Chidchob, a member of the opposition from the Bhunjaithai Party looked down at the practice of paying victims, saying, “It will lead to even more protests and people will not be afraid because some people try all their lives and are not able to gather [even] a hundred thousand baht”—a mere fraction of the compensation payout (Bangkoknews, April 5, 2012). Equivalently, Somchai Sawangkarn, an appointed senate member, said, “If there are mobilized protests again to cause confrontations and conflicts to cause wounds and casualties, there is a strong motivation of 7.75 million baht” (Banmuang News, June 1, 2012). Additionally, objections were filed at the court to cancel this policy by both Tul Sittiomwong, leader of the Yellow Shirts, and Satit Pitutacha, member of the Democrat Party, who filed a complaint against the program at Thailand’s Office of National Anti-Corruption Commission. The media ridiculed the program, with lines like, “7.75 million baht breaks the heart of the Thai people, costing 2 billion baht in taxes which have been earned with blood, sweat, and tears to reward the Red Shirt terrorists” (Manager Daily, April 23, 2012) and “The parade that burned the city receives an award and protestors receive a bonus of 7.75 million baht each” (Seengern, 2012).

All above ideas can be summarized through the words of General Somjet Boonthanom, appointed senate member who said, “Just like the 7.75 million baht being regarded as compensation, from another perspective it is a life insurance because 7.75 million is a lot when some people cannot even accumulate 1 million. There are people who willingly cause people to get wounded or die. Some hired hit men to kill others for as little as thirty thousand baht and receive the death penalty. In this case people were hired to cause violent incidents and the life insurance is 7.75 million baht. This is a very interesting amount” (Thaipost, June 3, 2012).

The group of people who despise the Red Shirts, generally the middle class and those identified with the Democrat Party, or Yellow Shirts, used hateful language to describe the Red Shirts as not Thai, and as human. Their language helped to justify violence against the Red Shirts, and subsequently, a callous response to their deaths. Indeed, even the parties tasked with investigating the protests and mending society through reconciliation were indifferent to the hundreds of deaths among the Red Shirts as if the deaths were not the deaths of humans. Even the TRCT, National Human Rights Commission of Thailand, King Prajadhipok's Institute and reconciliation forums, never interviewed the protestors or their families, as if they have no voices of their own. In addition, the Red Shirts are further demonized with remarks that claim that the Red Shirts cannot think by themselves, that they are merely poor and stupid supporters of the Shinawatras, awaiting orders and money from the government.

#### **4. The Red Shirts' Complicated Relationship to the Shinawatras**

The formation of the United Front for Democracy against Dictatorship, or Red Shirts, was done in a contentious political atmosphere, following the coup that deposed Thaksin. The group's creators were not happy with the coup and the judicial system's double standards. It is certain that a large number of Red Shirts love and support the Shinawatras, but there are also a large number who love something called democracy, and the principles of justice and equality, instead. From visits to seven provinces in the Upper Northern Thailand to interview Red Shirt supporters, the author found that, contrary to depictions in media, the Red Shirts are not merely ignorant supporters of their supposed idol, Thaksin. These interviews confirm arguments made in a number of academic works. For instance, these people are not indifferent to politics nor do they trade their votes for money. Also, they are not stupid, and do not lack education or information (Phatharathananunth, 2008). Although the middle class, especially in Bangkok, despises Red Shirts and complain that the Red Shirts are rural people who sell their votes, research by Pasuk Phongpaichit, a political economist, shows that while the distribution of money before elections is common, 95 percent of Red Shirts said this money does not affect their voting decision for political parties. This means that people who accept money feel no obligation to vote for the party they do not prefer (Voice TV, 2014). Similarly, Prinya Thaewanarumitkul, a law associate professor, found that vote buying does not have an effect on the election outcome (Prachatai, 2012).

Likewise, Yukti Mukdawijitra (2012) said that the 1997 constitution and policies of the Thai Rak Thai party had created a new independent middle class to select policies that they prefer. Mukdawijitra also stressed that their coherence was independent, that they came together over common political beliefs, that money was not involved in their organizing, and that vote buying did not influence their voting. Instead, they fit the pattern of what Andrew Walker (2012) calls "middle-income peasants." They are neither stupid, nor unable to think for themselves, nor poor in the way that society imagines them. Thai society should stop referring in public discourse to the rural, Red Shirt supporters as stupid, poor, and pained – a Thai saying that describes the pitiable and hateful position of the rural underclass (Manohan 2012).

The next crucial question is, given that they do not place the stereotypical importance on money that many segments of Thai society believe they do, what drives the movement called the Red Shirts? Although there is a segment of Red Shirts who love and support Shinawatras, another group looks further than the person. Their commitment to the Red Shirt movement stems from being confronted with injustice and double standards and being disadvantaged and excluded from economic prosperity by the elite and middle classes. This social exclusion led many to join the Red Shirts. As Somchai Preechasilpakul, a law scholar, argued, "A large number of people in society say it is a problem of poverty and economic inequality, but in reality the root of the problem is inequality in power" (Prachathai, 2010b). Indeed, this inequality is compounded by "the negative feelings from the treatment they received from "others," especially the insults, [which] are the main cause" for joining the Red Shirt movement (Satitniramai et al., 2013). Jim Taylor (2012) thus argues that the formation of the Red Shirts is driven by a shared sense of oppression, loss and marginalization.

While Red Shirt supporters' have true political grievances, and have banded together based upon them, Thai political society has regularly discounted the Red Shirts. As Chairat Charoensin-O-Larn (2009) argued, rural or grassroots voters are counted as eligible voters during the voting season, meaning that they can vote and are welcome at the poles; but after the election results come in and do not accord with the desires of the Thai aristocracy, these rural voters are counted as members of a different group—those that sold their votes in return for populist policies. Then, they become "uncounted," and their political desires, recorded by their votes, are held up as either unimportant or fraudulent. Therefore, Charoensin-O-Larn cited Jacques Rancière, calling these voters the "part which has no part" in society; these voters, who are both included and excluded by the political process, fit Agamben's definition of "bare life" as their political voices, even when expressed, are ignored or twisted to make them objects of hate, and not only by the middle and upper classes, but also by those, such as the

Shinawatras, who have relied on rural voters to bring them to power.

Although the Red Shirts helped the Pheu Thai party led by Yingluck Shinawatra win the general elections in 2011 with 265 out of 500 votes parliamentary votes, most of which came from Red Shirt members of parliament, the rural supporters of the Red Shirts were discounted and treated as worthless under the Yingluck government from 2011 until its toppling in 2014, as well.

### **5. Precarious Life under Yingluck Shinawatra Government (2011-2014)**

During its tenure, the Yingluck government did mobilize compensation and assistance for political victims of all colors who had suffered during political violence between 2006 and 2012 by awarding large amounts of money to victims in accordance with the severity of the losses. However, the overall picture of the Yingluck government's administration of the country over the two and a half years it was in power, is captured in her government's attempts to push forward a reconciliation act which would have given amnesty to all of those involved in the 2010 violence, including Abhisit, Suthep, and the army. During its time in power, the Pheu Thai Party focused on the following objectives:

1. Helping Thaksin Shinawatra,
2. Negotiating with the army and the elite,
3. Refusing to reform some institutions that had been involved in many violent events, including the military and the judiciary,
4. Refusing to give amnesty to a large number of Red Shirt victims who were prosecuted, many of whom remain in custody to this day,
5. Rejecting truth-seeking efforts directed toward uncovering the story of the 2010 massacre of Red Shirts, and
6. Claiming that a "majority" of Thais were behind reconciliation and appealing to Red Shirt supporters and victims to give up their claims for the losses in the past and stop the harsh criticisms of the army and elites (Sripokangkul, 2013).

Thaksin Shinawatra, during his voluntary exile abroad, always echoed the calls of the Pheu Thai Party for a general amnesty on both sides, naming the need for reconciliation in Thai society. There is no way to tell victims to accept their fate like telling them to "sacrifice" themselves for the good of the whole society, and claiming that they should "forget history" in order to jointly create a beautiful Thai society. Thaksin himself weighed in on the issue from abroad. He appealed to the Red Shirts, saying, "Although the mother of Kamonked Akhad, a volunteer nurse who died during the crackdown at the Pathumwanaram temple, is still angry that her son was shot by soldiers, and she does not want amnesty—this is normal—but we have to regard the interests of the majority and let the minority sacrifice [their desires for justice]" (Khaosod, April 16, 2012) and, "The government is looking towards the future of the country and we ask for understanding and sacrifices by the Red Shirts" (Matichon, May 20, 2012). Sanoh Thienthong, senior advisor to the Pheu Thai Party recommended, "In order to create reconciliation, the best way is to talk like relatives and forget all old issues" (Matichon, April 9, 2012). Similarly, Yongyuth Tiyapairat, former chairman of the house of representatives and a close associate of Thaksin, when asked whether reconciliation results in mass losses because some Red Shirts still suffer great impact from the death of family members during the massacre, said, "Reconciliation in the long term will have good results for the country, but if someone thinks of it is as a loss, they are selfish" (Daily News, April 17, 2012).

In addition, many Red Shirt members were incarcerated with charges of violating Article 112, or *lèse-majesté*, resulting from the political conflict after the 2006 coup d'état; the number of people imprisoned under Article 112 increased under Abhisit, because his government used the *lèse-majesté* law as a tool to suppress political opposition. Regardless of the law's use as a political tool against the Red Shirts, the Pheu Thai party never regarded those jailed as victims, even though some received the maximum prison sentence of 20 years and are still serving their time. Although progressive academics and other Thai scholars, such as those in the Nitirat group, petitioned for the abolition of Article 112, the head of the Pheu Thai Party, Yongyuth Wichaidit, stressed that the Yingluck government had no intention of changing the law, saying, "The government has expressed its stance on this issue many times already, whatever you keep saying, we have said we will not do it" (Thaipost, May 17, 2012). Similarly, Prompong Nopparit, spokesman for the Pheu Thai Party said, "The standpoint of the Pheu Thai Party is not to change Article 112. If someone wants to change it, they will have to campaign by themselves. If the majority of the population agrees, the Pheu Thai Party might reconsider its position to not change Article 112. But if the Red Shirts want to change it now, collect petitions yourself" (Matichon, May 17,

2012). Yet even when many names and different groups were collected, Chalerm Yoobamrung, Deputy Prime Minister, reiterated: “It is their right, but if the majority of the government does not approve, the law is not passed.” Chalerm also said, “The government has no policy on this matter; we are royalists whatever happens” (Thaipost, May 18, 2012). The alignment of the Pheu Thai Party with the royalist position on Article 112 was a direct attempt to reach out to the elite and middle classes, which had long accused Thaksin and the Red Shirts of opposing, and wanting to overthrow and replace the monarchy. The government calculated that standing up for the political victims who had been jailed under Article 112 would have allowed the Democrat Party and Yellow Shirt supporters to make these claims even more strongly.

The alignment with the Democrat Party and Yellow Shirts was made in other ways, as well. The Yingluck government believed that by offering compensation to victims and their families that it could stop the calls for Abhisit, Suthep, and others responsible for the 2010 massacres to be prosecuted. In reality this was not so easy. Nattapat Akhad, younger brother of Kamonked Akhad, a volunteer nurse who was shot in the Pathumwanaram temple, said, “Although we received compensation, it does not mean our suffering has ended” (Post Today, April 24, 2012). In the same way, Nidhi Eoseewong, a professor of history, criticized the Yingluck government, saying, “The bodies you step on are all Red Shirts and you hit them on the head with seven to eight million baht. That is enough, right? But it appears that the Red Shirts themselves are shaken, too, because they have the feeling that they cannot stand stepping on bodies like this” (Daily World Today, June 14, 2012). Likewise, Professor Kasian Tejapira, a political scientist, criticized the Yingluck government with this poem: “You have a dispute and invite us to fight for you, but when we die you accuse us. You patch up and forget us in the end. You hit us on the head with money and tell us not to sue. You treat us like pests. After the reconciliation is done you step on us. You let me die for [the] tradition of Thainess” (Voice of Siam, 2013). In short, it appeared that the Pheu Thai Party under Yingluck was pushing for reconciliation not as a social good, but as a political expedient designed to secure their power and reduce conflict with other political rivals.

Aside from its compensation program, the ruling Pheu Thai Party under Yingluck decided to ignore the Red Shirt victims who are, even today, still waiting for a glimpse of justice. Instead, the Pheu Thai Party chose to reconcile with the elites in their own party and opposition parties, as well as with the army and all parties that had had a hand in the 2010 violence, even though that violence was mostly directed at their own supporters, the Red Shirts. Furthermore, the Pheu Thai Party was reluctant to help the hundreds of Red Shirt supporters who still remain in custody, and acted as if the violent suppression and punishment of Red Shirts never happened. For Pheu Thai and the Yingluck government, reconciliation was equated to official amnesty—absolution for those on both sides who committed crimes and violence in 2010. This stubbornness ultimately resulted in the dissolution of parliament in 2013, when the Pheu Thai Party pushed through its amnesty bill for all political sides, generating anger not only from elites who saw it as a vehicle for bringing Thaksin back, but also among Pheu Thai supporters, who felt abandoned and cut out of the political deal.

The amnesty bill led to protests to overthrow the Yingluck government. The protests were led by the leader of the Democrat Party, Suthep, and pushed forward by his People’s Committee for Absolute Democracy with the King as Head of State (PCAD). This group consisted of Yellow Shirts, including the elite and middle classes in Bangkok and the South. The protestors prolonged and obstructed new elections, and called for the army to step in and overthrow the government. Regrettably, Mainueng Kor Kuntee, a Red Shirt poet was shot and killed on April 23, 2014, during the protests, and the killers were not found.

In a sense, the Red Shirts suffered continued hardship many times over, watching the Yingluck government appease those from the Abhisit government, Suthep and the soldiers involved with the 2010 massacre. As if that is not enough, they had to watch as the Pheu Thai Party which they support, betrayed them with the introduction of the amnesty bill and the refusal to defend them as victims of overzealous use of Article 112. Furthermore, during the PCAD protests against the amnesty bill and against the Yingluck government, on protest stages throughout Bangkok—and magnified in the media through coverage of the protests—there were daily offensive expressions of disgust towards the Red Shirts. For example, Dr. Seri Wongmontha, leader of the PCAD, said, “Three hundred thousand votes in Bangkok are worth more than 15 million worthless votes upcountry” (YouTube, 2014). Chitpas Kridakorn, whose family owns the Singha Beer Company in Thailand and who was a PCAD leader, said during the protests that, “We have to fight and to reform until it is clear that not everyone should have an equal vote; evil people should not have the same vote as good people and stupid people should not have an equal vote as smart people” (Matichon, June 29, 2014). “Evil” and “stupid” were clearly epithets for the rural, Red Shirt voters. Furthermore, it often said that the Red Shirts are the slaves of Thaksin, and an oft-repeated phrase, “girl riding a red buffalo,” refers to Yingluck’s relationship to the Red Shirts (Seengern, 2014). Finally, the Red Shirts had to watch the military carry out a coup d’état and destroy the core principle of

democracy which they believe in. After the May 22, 2014, coup d'état that ejected Yingluck's government from power, the military summoned a large number of Red Shirts to change their attitude and forbid them from engaging in political speech or action. Similarly, a number of pro-democracy academics who refused to meet with the army, and requested asylum abroad had their Thai passports revoked. The Yellow Shirts and Democrat Party members who engaged in the protests were never rebuked for their role in disrupting elections or in the violence when the new military government came to power.

## 6. Conclusion

Since their formation, the Red Shirts have been left to their own fate, at once counted, and uncounted, abused and forgotten, treated as non-humans and bare life which has no rights and no protection, is easily killed and verbally abused. Until the Red Shirts are legitimized as political actors, they will continue to be a useful scapegoat for whatever ruling party needs to consolidate and legitimize its power. The Red Shirts will continue to be seen and portrayed as inferior to humans, lower than animals, and worse than demons, make their exclusion from the political realm easier and more commonplace.

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### **Note**

Note 1. This paper is a part of my research; *Traumatic Memories: The Red Shirts in the Upper Northern Provinces and History of Thai Political Violence* (2014), supported by Thailand Research Fund (TRF). Most importantly, I devote this paper to my parents and Professor Chaiwat Satha-Anand.

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## Exercises Responses of 60-69 Years on the Senior Fitness Test in Jordan Compared to US Norms

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Received: July 12, 2015 Accepted: July 28, 2015 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p343

URL: <http://dx.doi.org/10.5539/ass.v11n24p343>

### Abstract

**Introduction:** It is well established that most body functions are affected by ageing. Regular physical activity reduces the risk of heart diseases, type 2 diabetes, osteoporosis and enhance the well-being among elderly. Therefore, this study assessed exercise responses in 60-69 year-olds Jordanian to the Senior Fitness Test in comparison to the US norms.

**Methods:** Sixty eight men (mean  $\pm$  SD, 67.1  $\pm$  4.6 y) and 54 women (63.3  $\pm$  3.5 y) from local society volunteered for the study. Each person performed six exercise tests of the senior fitness test; 30-second chair stand test; 30-Second arm curl test; Chair sit and reach test; Back scratch test; 8-Foot up and go exercise test and 6-Minute walk test.

**Results:** Low values of 8-Foot up and go exercise test, back scratch test and 6-Minute walk test for women compared to the US norms. Good and comparable values of 30-second chair stand test, 30-Second arm curl test and Chair sit and reach test compared to the US norms.

**Discussion:** The low values of 8-Foot up and go exercise test and back scratch test may be attributed to the fact that these type of exercise are not very common in the daily activity of elderly in Jordan. However, the good results of chair sit and reach exercise test is essential part of their daily physical activity especially during the prayer time, which they have to do five times a day.

**Keywords:** exercise responses, senior fitness test, Elderly, US norms

### 1. Introduction

Functional performance within the body is decreased due to aging (Skinner, 2005). Physiological adaptations to the stimuli of training are also affected with aging (Skinner, 2005; Taylor & Johnson, 2008). The prevalence of chronic diseases and disabilities and the cost of health care services are high among those above 65 years old (Berg & Casells, 1990; Jackson et al., 1999; Taylor & Johnson, 2008). At age of 30 people start to gain weight by 0.5 kg each year and this increase is in body fat (Wilmore et al., 2008). Kohrt et al. (1992) reported higher fat mass in trained and sedentary older individuals compared to trained and sedentary young persons and this was evident for both males and females. Bone mass density (BMD) starts to decline after the age of 35 year for both men and women and this reduction in BMD increases after the age of 50 years for men and after the menopause for women (Smith et al., 2009). Osteoporosis leads to fractures and hip and femoral neck are the most serious fractures (Smith et al., 2009). 24% of individuals with hip fracture above 50 years old will die within the first year (Smith et al., 2009).

Muscle mass is reduced with ageing and this can be due to the reduction in the size and number of muscle fibres (Roger & Evans, 1993; Evans, 1995). This reduction in muscle mass will lead to a reduction in strength. In fact, research has shown that individuals lose 1.5% per year of their strength between 50-70% years old and 3% after the age of 70 years old (ACSM, 1998). The loss of lean body mass will also lead to a reduction in basal metabolic rate (Evans, 1995). Aerobic capacity is also decreased with age (ACSM, 1998). Heath et al. (1981) has indicated that there is a reduction of 1% per year for healthy sedentary persons and by 0.5 for endurance-trained persons in maximal oxygen uptake. This reduction in aerobic capacity may be attributed to the reduction in maximal heart rate and maximal stroke volume (Heath et al., 1981; Wilmore et al., 2008) and in extraction of oxygen by the exercising muscles (Heath et al., 1981). Physical activity also declines with aging (Elia et al., 2000; Al-Nozha et

al., 2007) and low physical fitness level are common among older population (Bouchard et al., 2007).

Physical fitness is the ability to perform your daily tasks with energy and having less chance to develop chronic diseases (Jackson et al., 1999). The senior fitness test was developed to be a suitable physical fitness battery to test older individuals (Rikli & Jones, 2013). The senior fitness test includes muscular strength, aerobic endurance, flexibility, agility and dynamic balance and body mass index. Lower body strength and upper body strength are needed in many daily life activities such as walking and lifting groceries (Rikli & Jones, 2013). Aerobic endurance is also essential for many daily life activities such as shopping and sightseeing. Low flexibility and lost range of motion may affect many functions such as bending, reaching and walking (Holland et al., 2002). Maintaining lower back flexibility has a very important role in good gait and preventing the risk of falling (Brown & Rose, 2005). Agility and dynamic balance are very important in many daily tasks such as getting on and off buses and going to the bathroom (Rikli & Jones, 2013). With regard to BMI and body composition, it is well established that higher percentage of body fat especially in the abdomen is correlated with type 2 diabetes, hypertension, strokes and coronary heart diseases (National Institute of Health, 1985; Wilmore et al., 2008; ACSM, 2010).

The individuals' life span has increased worldwide. The life span of the US individuals' has increased from less than 48 years old for men and women in 1900 to 73 and 79 years old in 1996 for men and women, respectively (Jackson et al., 1999). The life span of Jordanian population has increased from 67 years old for both genders in 1990 to 72 and 77 years old in 2012 for men and women, respectively (The Jordanian Department of Statistics, 2012). That means the population of old persons have expanded especially those above 60 years old in Jordan. Therefore, the aim of the current study was to assess the exercise responses, physical fitness level, of 60-69 years old individuals on the senior fitness test compared to the US norms for the same age range.

## 2. Methods

### 2.1 Participants

Sixty eight men (mean  $\pm$  SD for age, height and weight = 67.1  $\pm$  4.6 y; 168.1  $\pm$  8.0 cm, 81  $\pm$  12.8 kg, respectively) and 54 women (mean  $\pm$  SD for age, height and weight = 63.3  $\pm$  3.5 y, 155.7  $\pm$  6.1 cm, 75.4  $\pm$  12.5 kg, respectively) from local society volunteered for the study. Inclusion criteria were: 1) provided informed consent to take part in the study; 2) his/her age between 60-69 years old; 3) be able to perform the elements of the senior fitness test; 4) passed the physical activity readiness questionnaire (PAR-Q) successfully. All the instructions with regard to the PAR-Q were followed as described in the (ACSM, 2010). This study was conducted in accordance with institutional ethics approval from the Faculty of Physical Education at the University of Jordan.

### 2.2 Procedures

On arrival, body mass was measured for each person to the nearest 0.1 kg and height was also measured for each person to the nearest 0.5 cm while standing barefoot, wearing very light clothes (Seca weight-height Scale, Hamburg, Germany). BMI is weight in kilograms divided by height in meters squared, (BMI = weight (kg) / height (m<sup>2</sup>)) was calculated for each person.

Proper warming-up and stretching exercises were delivered by the researchers in order to prepare and enhance physical and psychological status of participants to the exercise tests and to prevent injuries. Each person performed six exercise tests which are involved in the senior fitness test. These exercise tests are: 1. 30-second chair stand test; 2. 30-Second arm curl test; 3. Chair sit and reach test; 4. Back scratch test; 5. 8-Foot up and go exercise test; 6. 6-Minute walk test. The first five exercise tests performed in a random order but the 6-Minute walk exercise test performed last in order to prevent its effect on the other five exercise tests. On completion, cool down exercises were delivered to each person in order to prevent injuries and making sure that everything is Ok with each person before leaving the testing area.

### 2.3 Exercise Tests

These are the six exercise test performed as described in Rikli & Jones, (2013).

#### 2.3.1 30-Second Chair Stand Test

The aim of this exercise test is to assess lower body strength. Lower body strength is needed in many daily life activities such as walking and climbing stairs. From a seated position, each participant was asked to do as much of full stands he/she can do in 30 seconds while the arms were folded on the chest (Jones et al., 1999).

#### 2.3.2 30-Second Arm Curl Test

The aim of this exercise test is to assess upper body strength. Upper body strength is needed in many daily life

activities such as carrying suitcases and groceries. From a seated position and while carrying 8 pounds for men and 5 pounds for women, the number of biceps curl will be counted in 30 seconds (Rikli & Jones, 2013).

### 2.3.3 Chair Sit and Reach Test

The aim of this exercise test is to assess lower body flexibility. Lower body flexibility is important in activities such as getting out of the car, having good posture and having a normal gait. Each participant was asked to extend his/her leg and to bend the other around 90 degrees. With the palms on top of each other the participants were asked to reach as far distance as he/she can and the distance between the fingertip and the toes (plus or minus) was recorded (Jones et al., 1998). If the fingertips just touches the toes that is recorded as 0, if exceeds that is recorded as plus and if do not reach each other that is recorded as minus.

### 2.3.4 Back Scratch Test

The aim of this exercise test is to assess upper back and shoulders flexibility. Upper back and shoulder flexibility is needed in many activities such as putting thing in the upper shelves and reaching seat belts. The distance between the arms when one extended over the shoulder and the other on the middle of the back was recorded (Rikli & Jones, 2013). If the fingertips of both arms are touched that is recorded as 0, if exceeds that is recorded as plus and if do not reach each other that is recorded as minus.

### 2.3.5 8-Foot Up and Go Exercise Test

The aim of this exercise test is to assess agility and dynamic balance. Agility and dynamic balance are needed in many daily life activities such as going to bathroom, answering the phone and crossing the road. The time it takes to get up from a seated position and walk 2.4 meter and returned back to the seated position was recorded (Rikli & Jones, 2013).

### 2.3.6 6-Minute Walk Test

The aim of this exercise test is to assess cardiorespiratory fitness level and aerobic endurance. Cardiorespiratory fitness is important in our daily life activities such as walking, shopping and sightseeing (Rikli & Jones, 2013). The number of meters walked/ran in 6 minutes around a handball court was recorded.

## 2.4 Data Analysis

Percentiles were used to determine the percentile norms for 30-second chair stand test, 30-second arm curl test, chair sit and reach test, back scratch test, 8-foot up and go exercise test and 6-minute walk test for men and women. All data were analyzed using the Statistical Package for Social Sciences (SPSS) for Windows, PC software, version 21.

## 3. Results

Percentile norms of the senior fitness elements (i.e., 30-second chair stand test, 30-second arm curl test, chair sit and reach test, back scratch test, 8-foot up and go test and 6-minute walk test) for men and women are presented in Table 1 and Table 3.

Table 1. Shows Jordan percentile norms for the Senior Fitness Test for Men (n = 68)

Percentiles	30-Second chair stand test	30-Second arm curl test	Chair sit and reach test (cm)	Back scratch test (cm)	8-Foot up and go exercise test (s.ms)	6-Minute walk test (m)
95	28	30	19	6	3.16	955
85	21	26	14	2	3.64	827
75	20	25	11	-3	3.84	737
65	18	23	6	-9	4.21	643
55	17	22	5	-12	4.41	596
45	15	21	2	-15	4.50	545
35	13	20	0.0	-17	5.14	511
25	12	17	-3	-20	5.75	452
15	10	15	-14	-24	6.50	371
5	8	10	-21	-30	8.91	215
Mean ± SD	16 ± 6	21 ± 6	2.3 ± 11.7	-12 ± 11	5.04 ± 1.74	587 ± 210

Table 2. Shows US percentile norms for the Senior Exercise Test elements for Men

Percentiles	30-Second chair stand test	30-Second arm curl test	Chair sit and reach test (cm)	Back scratch test (cm)	8-Foot up and go exercise test (s.ms)	6-Minute walk test (m)
95	23	27	8.0	4.2	3.05	813
85	21	24	5.2	1.3	3.60	754
75	19	22	3.5	-0.5	4.05	718
65	18	21	2.2	-1.9	4.40	691
55	17	20	0.9	-3.2	4.70	665
45	16	18	-0.3	-4.4	5.1	640
35	14	17	-1.6	-5.7	5.4	615
25	13	16	-2.9	-7.0	5.75	587
15	12	14	-4.6	-8.8	6.2	551
5	9	11	-7.4	-11.7	6.95	493

**Note:** adapted from Rikli, RE, & Jones, CJ (2013). **Senior Fitness Test Manual**. Champaign, IL: Human Kinetics.

Table 3. Shows Jordan percentile norms for the Senior Fitness Test for Women (n = 54).

Variables/ Percentiles	30-Second chair stand test	30-Second arm curl test	Chair sit and reach test (cm)	Back scratch test (cm)	8-Foot up and go exercise test (s.ms)	6-Minute walk test (m)
95	27	29	23	9	3.78	695
85	19	25	16	2	4.13	620
75	17	23	12	-5	4.38	591
65	16	22	11	-8	4.76	545
55	14	20	7	-10	5.06	456
45	13	18	5	-16	5.37	410
35	12	16	3	-19	5.80	397
25	10	15	0.8	-22	6.32	368
15	9	13	0.0	-25	7.24	287
5	6	10	-13	-29	10.5	188
Mean ± SD	14 ± 6	19 ± 6	6 ± 10	-13 ± 13	5.76 ± 2.12	456 ± 151

Table 4. Shows US percentile norms for the Senior Exercise Test elements for Women

Variables/ Percentiles	30-Second chair stand test	30-Second arm curl test	Chair sit and reach test (cm)	Back scratch test (cm)	8-Foot up and go exercise test (s.ms)	6-Minute walk test (m)
95	20	23	8.3	5.0	3.4	738
85	18	21	6.0	2.8	4.2	682
75	17	19	4.6	1.5	4.6	648
65	16	18	3.6	0.5	4.9	622
55	15	17	2.6	-0.5	5.2	598
45	14	16	1.6	-1.5	5.6	574
35	13	14	0.5	-2.4	5.9	550
25	12	13	-0.5	-3.4	6.2	524
15	10	11	-1.9	-4.7	6.6	490
5	8	9	-4.0	-6.7	7.4	434

**Note:** adapted from Rikli, RE, & Jones, CJ (2013). **Senior Fitness Test Manual**. Champaign, IL: Human Kinetics.

Table 5. Shows the prevalence of obesity, underweight and normal weight among older population in the study sample. Data are frequencies (n) and percent (%)

Gender/Classification	Normal	Overweight	Obese
	N (%)	N (%)	N (%)
Men	16 (23.5)	26 (38.2)	26 (38.2)
Women	5 (9.3)	18 (33.3)	31 (57.4)

#### 4. Discussion

Regular physical activity reduces the risk of heart diseases, type 2 diabetes, osteoporosis and enhance the well-being (U.S. Department of Health and Human Services, 1996; Leon, 1997; ACSM, 2010). Therefore, this is the first study in Jordan that presents national data on physical fitness level among elderly between 60-69 years. The main findings of the current study is that at a given percentile our sample have lower performance for 8-Foot up and go exercise test for both men and women compared to the US norms. These findings might be due to the fact that agility, speed and dynamic balance which are required for this exercise test are usually neglected in our gym or home-based training for young, adults and elderly in order to develop health-related fitness. In addition, old individuals may think that speed, agility and dynamic balance are not appropriate type of exercises for their age. Furthermore, this may be attributed to the fact that elderly individuals do these exercises and these activities slowly and with help such as using the handles for support.

In the back scratch test our sample's results are below the US norms with exception 95 and 85 percentile for men and 95 percentile for women. These flinging of the back scratch test are expected due to the fact that such specific stretching exercises for upper back and shoulder muscles are not often performed as part of our daily life activities. The results of the chair sit and reach exercise test are better than the back scratch test and better than most of the US norms. This may be due to the fact that all participants in the current study are Muslims and in the Islam religion we have to pray five times a day. Praying involves bending movements which help in maintaining lower back muscles and hamstring muscle flexibility.

Al-Nozha et al. (2007) reported that physical activity decrease with ageing among Saudis between 30 –70 years and that 98.1% of Saudis females and 93.9% of Saudis males were inactive. This confirms our findings of lower distances covered at a given percentile for women and at 65 percentile and below for men. We have included Al-Nozha et al. (2007) study due to the similarities between the two neighbouring countries. Our sample have better results in 30-second chair stand test and 30-second arm curl test for both men and women compared to the US norms. This might be attributed to the fact that some of the data collection took part in gyms where individuals focus mostly on upper and lower body strength during their training.

This study showed that 38% of men and 57% of women were obese and 38% of men and 33% of women were overweight. These results indicated that the prevalence of obesity and overweight among the study sample are very high. The prevalence of obesity in 2004 was ~ 25% among Canadian population between 65 - 74 years old and for those older than 74 years old. The prevalence of obesity and overweight among the USA adults are 32% and 66%, respectively (ACSM, 2010). These percentages of obesity and overweight in the USA are lower compared to our findings. From Al-Nozha et al. (2007) data in Saudi Arabia, 42% of men and 32% of women were overweight and 26% of men and 44% of women were obese. These percentages of obesity and overweight of Al-Nozha et al. (2007) study are similar to those of our current results on elderly Jordanians. The findings of our study may be attributed to the fact that individuals older than 60 years old in Jordan have low physical activity level, although it was not measured in the current study. To the best of our knowledge we do not have any study in Jordan which has assessed physical fitness level and physical activity level among this age range. Physical activity level is generally lower in the Eastern Mediterranean region compared to other WHO regions. Females in this region were shown to be also less active than males. Their study also showed that the percentage of inactive females was higher compared to males; this in turn may help in interpreting higher prevalence of obesity among women in the current study compared to men. Another point is that the retirement age in Jordan is 60 years old this may in turn reduce physical activity level required to accomplish a given working task.

#### 5. Conclusion

This study assessed exercise responses of 60-69 years in Jordan on the senior fitness test compared to the US norms. Our sample has good results in the 30-second chair stand, 30-second arm curl and chair sit and reach exercise tests compared to the US norms. However, our sample have low responses on the back scratch and

8-Foot up and go exercise tests compared to the US norms. Women have inferior results on the 6-minute walking test compared to the US norms. The prevalence of overweight and obesity in the current study is high. Due to lack of local literature in physical fitness and physical activity for elderly in Jordan, it is recommended that more physical activity research in the elderly Jordanian population be conducted. We also recommend extending this study in the future to include all age ranges above 60 years old (i.e., 60-95 years old) and for both genders.

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# Factors Associated with Reproductive Behavior of Low Income Mothers in Kiandutu Slum in Thika Municipality, Kenya

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Received: January 15, 2012 Accepted: February 14, 2012 Online Published: August 18, 2015

doi:10.5539/ass.v11n24p350

URL: <http://dx.doi.org/10.5539/ass.v11n24p350>

## Abstract

The purpose of this study was to investigate maternal factors associated with reproductive behavior of low income mothers in Kiandutu slum in Thika Municipality, Kenya. The family resource management model and the safe motherhood theoretical framework guided the study. A survey of 120 randomly selected mothers was conducted using simple random sampling. Data was collected using both qualitative and quantitative methods. Results showed that the level of education ( $p=0.000$ ), occupation ( $p=0.037$ ), income levels ( $p=0.040$ ), religious affiliation ( $p=0.007$ ) and attitude towards contraception ( $p=0.000$ ) had significant relationship with mothers' reproductive behavior. However, age, marital status, ethnicity contraceptive knowledge and use were not significantly related to reproductive behavior. Implications for fertility, family size, family planning, and involvement of males in reproductive health are included in the discussion. The study recommends that reproductive and sexual health education be made available to women and girls of childbearing age. This will help to empower them to take control of their own fertility.

**Keywords:** reproductive behavior, fertility, family size, family planning

## 1. Introduction

The purpose of this study was to investigate maternal factors associated with reproductive behavior of low income mothers in Kiandutu slum of Thika Municipality. The study was based on Deacon and Firebaugh (1988) family resource management model and the safe motherhood model by McCarthy and Main (1994). In this research, the focus was on the relationship between maternal inputs or contextual determinants and throughputs or intermediate determinants, and the outputs of reproductive behavior. Contextual determinants were defined as maternal factors such as age, education, occupation, income, cultural and religious beliefs which influence directly or indirectly their reproductive behavior. Intermediate determinants were throughputs or transformation factors such as maternal decision making patterns, knowledge, attitudes and use of contraceptives for the management of fertility. Proximate determinants were the outputs which were characterized by fertility and reproductive behavior.

### 1.1 Objectives

The study was guided by the following objectives:

1. To analyse the socio-demographic characteristics of low income mothers.
2. To assess knowledge, attitude and use of contraceptives of low income mothers.
3. To investigate decision making patterns on contraceptives by low income mothers.

### 1.2 Null Hypotheses

The study sought to test the following hypotheses:

1. There was no relationship between maternal socio-demographic characteristics and reproductive behavior.
2. There was no relationship between maternal knowledge, attitude and use of contraceptives and reproductive behavior.
3. There was no relationship between maternal decision making power and reproductive behavior.

## 2. Review of Related Literature

Human fertility is a complex process responsible for the maintenance of human society (Ngige & Wilson, 2006). African people have long valued fertility and therefore many couples have large families. In the past, many African families measured their riches by the number of healthy children they had. According to Centre for Minority Rights and Development [CEMIRIDE] (2007), the Sub-Saharan Africa has the lowest rate of contraceptive use in the world, making it to have the highest unmet need for contraceptives. This is contributed by difficulties in getting contraceptive supplies, lack of adequate family planning clinics, low social economic levels and the high value many cultures place on large family size.

This high fertility and difficulties in contraceptive supplies impacts greatly on low income mothers who are characterized by limited education and training skills, chronic low incomes, recurring health problems and they are either unemployed, underemployed or have unreliable employment which provides low incomes (Ngige & Wilson, 2006). Hence they are unable to purchase good quality food leading to reduced nutrient intake and therefore they are vulnerable to malnutrition. These mothers lack access to good health care which leads to poor health which in turn affect productivity on the job and compound the already low income by being absent from work. Children also lack access to education hence facilitating the vicious cycle of poverty from one generation to another (Ngige & Wilson, 2006).

According to Kenya housing and population census 2009, it indicated a larger proportion of households with more than six members of the family were categorized as poor. Likewise looking at the Kenya economic survey, it was observed that poverty in Kenya has been persistent and on the increase in the last 20 years. For example in 1992 poverty levels were at 46.4% and have steadily increased to 52.3% in 2007 (Kenya, 2007). Despite the fact that poverty trends are still on the rise, there has been no desire among low income mothers to limit the number of children they have even when the urban and rural economic prospects seems so grave. Hence there was a need for more research to investigate aspects of reproductive behavior of low income mothers where crucial gaps still exist as they seem to have a high fertility level despite the economic constraints they go through. Therefore given the foregoing scenario in Kenya there was need to examine maternal factors associated with reproductive behavior of low income mothers.

## 3. Methodology

The research proposal was reviewed by Kenyatta University and the Ministry of Education, Science and Technology, and a letter of research authorization with a research permit granted. Participation in the study was purely on voluntary basis, and respondents were fully informed of the research objectives and methods. Informed consent was sought from the mothers before any information was gathered. Confidentiality of the participants' identities were assured and kept by use of identification codes throughout the study and in all subsequent reports. Mothers who were willing and able to participate in the study were scheduled for a face-to-face interview in their homes conducted by trained researchers. According to Ary, Jacon and Razeviah (1972) 10-20 per cent of the sample representation is adequate. The total number of households in Kiandutu slum according to the Central Bureau of Statistics was approximately 1587. The sample size was made up of 10 per cent of the population, which was approximately 150 households. The slum has one cluster and the houses are systematically built though not physically numbered.

The researcher used systematic sampling method where the first household was picked randomly and the remaining households were picked at pre-determined interval of 10. Therefore after picking the first household randomly, every 10<sup>th</sup> household was considered as an element under study. However 16 households were dens for illegal brew (changaa) and due to insecurity reasons, they were not sampled, hence 134 households formed the sample size. Out of these 134 interviews, 14 of them were incomplete and were not considered in the analysis as the respondents refused to answer some of the important questions guiding the study. Hence the final population of the sample under study consisted of 120 randomly selected mothers living in Kiandutu Slum in Thika Municipality. An interview-questionnaire was developed with three parts: the first part elicited information on socio-demographic characteristics of the informants. The second part contained information on knowledge, attitudes and use of contraceptives and the last part dealt with mothers' decision making patterns on issues pertaining to reproduction and fertility management. Data were collected in home interviews scheduled by appointment that lasted about two hours. All interviews were conducted in the national language, Kiswahili and later translated into English.

## 4. Results

### 4.1 Sample Socio-demographic Characteristics

The mothers ranged in age between 15 and 44 years, 77.5% were married, 10% single, and 12.5% were either separated or divorced. In terms of the highest level of formal education, 85% had completed primary school and 15% had completed secondary education. None of the respondents had attained post-secondary or tertiary level of education. The religious affiliations were Christian (70%) and Muslims (5%) and others (25%). The occupations of the respondents in ranked order were business women in micro and small enterprises (65.5%), unskilled or casual laborers (25%) and housewives (12.5%). In terms of daily income, about two-thirds earned less than a dollar a day (Kenya Shillings 78 per day or 2340 per month). This is below the absolute poverty line in Kenya for urban areas whose cut-off was 2648 Shilling per month (Kenya, 2007). The ethnic groupings included Kikuyu (55%), Kamba (30%) Luo, Borana and others (15%).

### 4.2 Knowledge, Attitudes and Use of Contraceptives

The results indicated that 95% of the respondents had knowledge of contraceptives where pills and injectables were widely known with the least known being tubal ligation and norplant. This is supported by Thumbi (2004) who found similar findings. Such knowledge of contraceptives was mainly obtained from the health clinics followed by through friends. Likewise more than three quarters of the respondents (77.5%) indicated that they were using some form of contraception and the widely used ones were the pills and injectables which were the mostly known. The main reason for the non-use of contraceptives was indicated as side effects associated with them. In addition, the respondents were also generally found to have positive attitudes toward contraceptives.

### 4.3 Maternal Decision Making Power on Contraception

The self-reports indicated that 70% of the mothers made decisions on whether or not to use contraceptives and which type to use. However 85% of the husbands decided when to have sex and the number of children the couple should have. Both partners had a say on when to have children. A critical look at the results revealed that even though the women had knowledge about contraceptives, this gain was undermined by the fact that it was the husband who decided on the family size. This finding is supported by other researchers who asserted that women in most African cultures have limited power over their sexual and reproductive lives (Ascardi, 1990).

### 4.4 Reproductive Behavior

Reproductive behavior was measured by three indices namely: total number of children born per woman, age at first birth and age at first marriage. The number of children born per woman ranged from 3 to 5 with an average of 4. The age of the mothers at first birth indicated that slightly more than half (52.6%) had their first child at the age of 17 years or more while age at first marriage showed that majority of them (56.5%) got married at the age of between 18 to 20 years. After computation it was shown that a large proportion of the respondents (59.8%) had moderate reproductive behaviour.

### 4.5 Hypotheses Testing

#### 4.5.1 There Was No Relationship between Maternal Factors and Reproductive Behavior

Analytical results for this hypothesis indicated that four contextual determinants namely: level of education ( $p=0.000$ ), occupation ( $p=0.037$ ), income levels ( $p=0.040$ ) and religious affiliation ( $p=0.007$ ) were significantly related to reproductive behavior of low income mothers. However, marital status and ethnicity had no significant relationship with reproductive behavior (Table 1).

Table 1. Relationship between maternal characteristics and reproductive behavior

Maternal Variable	Value ( $\chi^2$ )	df	Significance
Age	6.551	4	0.162
Education level	30.407	2	0.000**
Marital status	4.629	6	0.592
Occupation	10.212	4	0.037**
Income level	10.025	4	0.040**
Ethnicity	5.805	4	0.214
Religion affiliation	17.634	6	0.007**

\*\*Significant at  $p \leq 0.05$

Results indicated that mothers' level of education ( $p = 0.000$ ), occupation ( $p = 0.037$ ), level of income ( $p = 0.040$ ) and religious affiliation ( $p = 0.002$ ) showed a significant relationship with reproductive behavior. Thus the null hypothesis was retained. However, marital status and ethnicity had no significant relationship with reproductive behavior.

#### 4.5.2 There Was No Relationship between Contraceptive Knowledge, Use and Attitude and Reproductive Behaviour

Attitude towards contraceptives was found to be significantly related to reproductive behaviour ( $p=0.000$ ). Knowledge and use of contraceptives were not found to be significantly related to reproductive behaviour. (Table 2) However knowledge of contraceptives was found to be significantly related to marital status ( $p=0.039$ ) and income levels ( $p=0.003$ ). In analyzing the extent of the use of contraceptives, it was noted that factors such as age ( $p=0.01$ ), income levels ( $p=0.04$ ) and occupation ( $p=0.002$ ) were significant. Also attitude towards contraceptives was found to be significantly related to all maternal socio-demographic characteristics under study; age ( $p=0.000$ ), level of education ( $p=0.000$ ), marital status ( $p=0.001$ ), occupation ( $p=0.000$ ), income ( $p=0.009$ ), religious affiliation ( $p=0.000$ ), ethnicity ( $p=0.000$ ). In turn attitude towards contraceptives was found to influence reproductive behavior of low income mothers. However for the non-users of contraceptives, the results showed that there were misconceptions that resulted in negative attitudes. For example, it was reported that the use of contraceptives either made women "promiscuous" or reduced their libido (sexual urge).

Table 2. Relationship between contraceptive knowledge, use and attitude and reproductive behaviour

Variable	Value ( $\chi^2$ )	df	Significance
Knowledge of contraceptive	1.994	2	0.369
Use of contraceptive	1.119	2	0.572
Attitude towards contraceptives	46.010	16	0.000**

\*\*significant at  $p=0.05$

The results of chi-square test in Table 4.40 shows that attitude towards contraceptives had a significant relationship ( $p = 0.000$ ) with reproductive behavior hence it influences reproductive behavior of low income mothers. Knowledge and use of contraceptives were found not to have an influence on reproductive behavior of low income mothers. Therefore the null hypothesis was rejected.

#### 4.5.3 There Was No Relationship between Decision Making Patterns on Contraceptive and Reproductive Behaviour

The findings indicated that none of the maternal decision making patterns were significantly related to reproductive behaviour (Table 3).

Table 3. Relationship between decision making patterns on contraceptives and reproductive behaviour

Decision making variables	Value	df	Significance
Number of children to have	7.929	6	0.243
Whether to use contraceptives	4.713	4	0.318
Which contraceptives to use	1.013	2	0.603
Where to obtain the contraceptives	1.013	2	0.603
Who should obtain the contraceptives	1.013	2	0.603
When to have a child	12.544	6	0.051
When to have sexual intercourse	3.028	4	0.553
Who should use the contraceptive	2.959	4	0.565

Results showed that none of the decision making factors had significant relationships with reproductive behaviour. Therefore the null hypothesis was retained.

## 5. Discussion

### 5.1 Maternal Education and Reproductive Behavior

Level of education was found to influence fertility since contraceptive prevalence increased dramatically with level of education. This is supported by other researches that have found extended education is related to postponement of marriage hence decreasing the child bearing period (Kenya, 2002). Education influences fertility as reported in the last two Kenya demographic and health surveys (Kenya, 2003, 2009) where contraceptive prevalence increased with the level of education. The report further asserted that 60% of married women at least with secondary education used contraceptives compared to 40% with primary education, and 14% who had never attended school giving clear-cut differences between women with little or no education and women with secondary level of education and higher. This finding was also supported by Kimani (2005) who reported that women with higher education had lower fertility rate than those with low or no education at all. Similarly, Bongaarts (2009) asserted that contraceptive prevalence decreased significantly among women with no education and those with no children, but increased among their more educated counterparts. He further posited that contraceptive prevalence was below 15% among the poorest and least educated women who lived in slum settlements in Kenya. Education also determines the type of occupation one was engaged in which in turn determined the level of income (Kenya, 2002). On marital status, married women had higher contraceptive prevalence rate than single women (Kenya, 2009).

### 5.2 Maternal Age at Marriage and at First Birth

Age at first marriage and first birth have been cited as factors influencing reproductive period in that recent researches have showed that girls entered into sexual union at an early age of 15 years which increased their fertility (Kenya, 2009). Girls enter into early marriages in anticipation of a better life hence prolonging their reproductive period. Previous research showed that knowledge of contraceptives is widespread (96%) and this coupled with attitude towards contraceptives affects the use of contraceptives (Kenya, 2003, 2009). However a national survey revealed that 24 per cent of Kenyan women who would like to either space or limit births are not using a method of contraceptive reflecting a high unmet need (Kenya, 2009).

### 5.3 Fertility, Contraceptives and Poverty

The poorest in the society have the highest wanted and unwanted fertility rates and are the least able to access information and services on contraceptives Bongaarts, Askew, Ezeh & Townsend (2009) reported that fertility of the Kenyan women living in the poorest households was more than two and half times (7.6) the total fertility rate of women in the richest households (3.1). Although the overall poverty incidence declined from 56% in 2000 to about 47% in 2006, the poverty headcount was higher in women in both rural (50%) and urban (46%) areas (Kenya, 2007). A national survey showed that more than half of the Kenyan population live in absolute poverty with the likelihood that it will rise to 66% by 2015 if current issues are not addressed such as increasing inequality in the distribution of income and wealth (Centre for Minority Rights and Development, 2007).

An assessment of contraceptive usage by marital status indicated that married women had a higher contraceptive usage, which peaked among women within the age group of 30-34 years when the ideal family size had been attained. However it was lowest for women at the age of 15-19 years (Kenya, 2009). It has also been observed that over the years, the total fertility rate has been dropping from 8.1 births per woman between 1970 and the 1990s, to 4.9 in 2000-2002 period, and then declined to 4.6 in 2006-2008 (Kenya, 2009). This drop in fertility could be due to the fact that contraceptive use has increased considerably by married women from 39% in 2003 to 46% in 2009. The total fertility rate in Kenyan urban areas is 2.9 births compared to 5.2 births in the rural areas (Kenya, 2009).

### 5.4 Fertility by Age at First Marriage and Age at First Birth

The median age at first birth in Kenya is 20 years (Kenya, 2009) and this is becoming an important indicator of fertility irrespective of the marital status. More than half of Kenyan women were married by their 20<sup>th</sup> birthday (Kenya, 2009). When women enter child bearing at an early age their reproductive period is lengthened and fertility is high. It also asserts that median age at first marriage is increasing over time from 19.2 years in 1998 to 19.8 in 2003 and it is projected to increase to 20 years and thereby decrease the reproductive period of a woman hence implying fewer children.

### 5.5 Knowledge, Attitudes and Use of Contraceptives

According to the Kenya health and demographic survey (2009), contraceptive knowledge is almost universal with 96% of women aged 15-49 years and 98% of men aged 15-54 years knew at least one modern method of contraceptives. The mostly commonly known methods are the male condom (91%), pill (90%) and injectables

(89%). A woman's knowledge of the source of contraceptives affects her use which is also affected by the attitude towards the contraceptives and the level of motivation to use them (Ross & Winfrey, 2001). Modern methods are commonly used (39%) than traditional methods (6%) and this has fuelled an increase in the overall contraceptive prevalence rate (46%) in Kenya. Of the modern methods, injectables are the most commonly used while periodic abstinence as the most popular traditional method (Kenya, 2009). The survey further reported that fertility preferences are closely related to the number of living children a woman has so that as the number of living children increases, the desire to have another child decreases and vice versa. For instance, 84% of married women with at least 5 children wanted no more children or were sterilized, in contrast to only 3 percent of women with no children. The national survey showed that more urban women (53%) used contraceptives compared to their rural counterparts (43%) (Kenya, 2009).

#### 5.6 Maternal Decision Making Patterns and Reproductive Behavior

The results showed that the mother's decision making variables had no significant relationship with reproductive behavior hence the hypothesis was supported. This concurs with Ascardi et al. (1990) who reported that in some settings fertility decision making is beyond the control of an individual woman. Bolaji 1997 further asserted that reproductive behavior was controlled by people outside the family who did not recognize that making decisions on fertility should be left to the couple who are best placed to assess the costs and benefits of the choices made. Deutscher Entwicklungsdienst (2004) reported that the subordinate status of women also implied lack of control over their sexual relations which was worsened by their economic dependence on men. This perspective was supported by Zeba, Casterline & Haque, (2001) who pointed out that contraceptive use and fertility prevalence were affected by decisions made within the family and in some cases it was controlled by people outside the family who did not recognize that decisions pertaining to fertility should be made by couples after weighing the costs and benefits of their choices.

### 6. Conclusions and Recommendations

This study has shown that maternal characteristics such as mother's level of education; occupation; level of income, religious affiliation and attitudes toward contraceptives were significantly related to reproductive behavior of low income mothers. The study therefore recommends that reproductive and sexual health education be made available to women and girls of childbearing age. This will help to empower them to take control of their own fertility. Low income mothers should also be assisted to come up with sustainable income generating projects to be able to provide for the family basic needs and break the vicious cycle of poverty.

Religious leaders should also address the issue of reproduction to their respective followers with emphasize on the plight of children. Men should be sensitized not only to allow their partners to make decisions on contraceptives, but also to give some room for their women to decide on matters dealing with sexuality and the number of children a couple should have. There should be co-operation between men and women when it comes to making decisions related to reproduction. Finally on attitude towards contraceptive, the findings showed that there were misconceptions that resulted in negative attitudes. These misconceptions and side effects associated with contraceptive use need to be addressed by health workers and family planning programme designers and implementers.

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*Asian Social Science* wishes to acknowledge the following individuals for their assistance with peer review of manuscripts for this issue. Their help and contributions in maintaining the quality of the journal are greatly appreciated.

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