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## The Role of Supply Chain Management on Organized and Unorganized Grocery Retailers-A Review on Indian Perspective

Raghuram Naga Venkata J.<sup>1</sup> & Ravilochanan P.<sup>2</sup>

Correspondence: Raghuram Naga Venkata J., VIT Business School, VIT University, Vellore, India. E-mail: jeenvrr@gmail.com

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#### **Abstract**

The retail industry in India is slowly taking a new shape and structure. The dominant unorganized retailing started losing its stand in the market and the organized sector is taking its importance in the industry. The organized retailers have changed the perceptions of the consumers and chased out the consumer from the unorganized retailers.

What the customers look for from today's retailers is ambience, price, variety, assortments and merchandise which are addressed meticulously by the organized retailers. With a change in the purchasing power, tastes and preferences of the Indian retail consumer, read availability of product with the retailer is playing a major role in the sustainability of the retailers. In this context supply chain management (SCM) plays a vital role. The mechanism which helps in decreasing the waste, decreasing the inventory, decreasing the transportation cost, finally giving, the consumer an affordable price and improving the performance of the retailer is what is called as Supply Chain Management. This article emphasis on the role of SCM in the organized and unorganized Indian retail and the roles of various factors like information flow, inventory management, sourcing, transportation, warehousing, reverse logistics, demand forecasting and supply chain execution as key drivers for an efficient supply chain management.

Keywords: grocery retailers, supply chain management, logistics

#### 1. Supply Chain Management

The process of strategically managing the product procurement, movement, storage and the inventory (and the related information flows) through the organization and its marketing channels in such a way that current and future profitability are maximized through the cost effective fulfillment of orders. (Christopher, 1998, p. 4)

SCM helps to procure and supply the products and services smoothly right from the supplier to Manufacturer and from there into the hands of customers in order to fulfill their needs. This smooth flow of product from the starting point till the end point is done with mutual relationship with each other.

#### 1.1 Channels Used in SCM

There are different channels which the retailers follow. To name a few;

#### 1) Limited Channel

This is one type of channel where the retailer eliminates the intermediary, keeping a direct contact with the producers, thereby eliminating the cost of using wholesalers.

#### 2) Direct Channel

The product is sold by the producer directly to the customers. This is what we term as the forward integration. Producers move a step forward to establish their own outlet to sell their product to the consumers directly. This facilitates cost reduction as retailer is eliminated.

By using both the channels mentioned above, modern SCM practices enabled the producers and retailers to minimize the distribution. This in turn reflects on the price and customers stand to gain by virtue of lower prices. This creates a win-win situation for all the players in a channel. These advantages are realized more by organized

<sup>&</sup>lt;sup>1</sup> VIT Business School, VIT University, Vellore, India

<sup>&</sup>lt;sup>2</sup> School of Management, SRM University, Chennai, India

retailers than unorganized.

Today's customers' expectations are increasing day by day and probably nothing can substitute the availability of the stock at the time of customer's requirement. This satisfaction will be more than the services provided or the value added promotions provided.

#### 1.1 Components of Retail Sectors

The retail sector across the globe is experiencing enormous growth and complexity. On the other hand this trend is upgrading the life-style of every households and individuals thus contributing to the rise in globalization of trade. The sectors like agriculture and other industries are maintaining the forward and backward linkages with the retail sector, so as to build relationship and stimulate the demand for their products through mass marketing. Moreover, it creates considerable direct and indirect employment in the economy. Also, the consumers have benefited in terms of wide range of products available in a market. (etd.uasd.edu)

The retail sector consists of organized and unorganized segments. The organized retailers include hypermarkets, super market, discount stores, mega markets and many more formats which are supported by big private and corporate giants. These formats of organized retailing involve huge investment and offer large assortments of goods.

The unorganized Indian retailers like Kirana stores or the local mom and pop stores, convenience stores, etc. were all low-cost retail shops and mostly run by an individual or a family. These stores used to have lesser assortments and their business depends on the relationship with the consumers. The business volumes are less and they rarely followed any systemized procurement or storing procedures. But today retailers should provide what is wanted by consumers and not what they can sell. Hence the system of procurement, storing, suppliers' selection and other activities which help the retailer keeping stock of products ready for the consumer, have drastically changed. Thus there is a need for new procurement policies, new storing policies, new pricing policies, new packaging policies paving the way for an efficient system. This is called Supply Chain Management and Logistics. SCM Practice therefore has three constituents-Supply chain Planning, Sourcing and procurement and Supply chain execution. An efficient SCM practice will enhance all these constituents and thus will enable the retailer to deliver the right product to right consumer, at right time and at right price.

#### 1.2 Organized and Unorganized Retailers-Indian Scenario

The value of transactions in the organized and the unorganized retail in this country was around \$328 billion in 2010. This is expected to reach \$450 billion by 2015. On the other hand the organized retail was around \$16.4 billion (5 per cent share) in 2010, which was projected to reach \$49.2 billion (11 per cent share of expected value of 2015) by 2015. This clearly indicates that there will be a tripling effect in the size and scale of organized retail by2015. While organized retail will grow at this fast pace, it is important to note that the unorganized retail sectors will bring about the rest of the value. In fact this segment will reach \$73.8 billion by 2015. (Techno park Advisor, 2010).

#### 1.3 Justification for Selecting Retail Grocery Markets

With such a prospectus for retail business the role of Supply Chain Management in retail segments needs an in depth study. But the retail sector deals with huge assortments of goods and for the purpose of study only grocery items in retail business are included.

#### 2. Indian Grocery Retail Market

The traditional kirana stores constitute over 50 per cent of the Indian retail market and have an annual turnover of US \$80 billion. (Goswami & Mishra, 2009), about 6.5 million grocery stores are estimated to have their presence in this country in various shapes, structures and sizes. But most of them are fragmented. In the current developments taking place in the retail industry the organized retailing is slowly gaining its presence in the urban market. As of now the organized retailing is very low and is only 2-4% in the market. The changing pattern of the consumer's purchases, needs and demands are impacting the organized retailer in urban areas.

CII-McKinsey & Company, 2005 have stated that Grocery sector can be classified into three components: (1) The packaged foods, soaps toiletries household items etc. which all come under the branded grocery products (2) Grains and cereals which come under the dry unprocessed unbranded grocery and (3) Fresh Vegetables, fruits, dairy products, meat etc. are categorized under Fresh grocery. Generally the Unbranded products nearly account for about 60% of all packaged food sales. About 40% of the food business includes 18% of milk, 13% fruits and vegetables and 9% of meat under Fresh groceries categories in India.

The grocery sector in India till 1990 was contained by Haats, Mandis, Bania shops and after that it includes Apna

Bazaar, Kendriya Bhandaar and from 2003 onwards, the era of organized retailers like Subhiksha, More, Spencer's and many more started.

The old practice of retailers stocking daily items in very small shopping space with no parking lot has given place to well stocked items, very clean and neat environment, and fresh stock, huge variety of stock, loyalty programs and above all low price. As the disposable income has increased and consumers have become very much brand conscious, they are always looking for big assortments and wide variety at affordable prices. This combination of wishes and tastes of the consumer are changing the pattern and the business model of today's retailers.

#### 2.1 Demographic Details of Indian Retail Grocery Sector

India in the current situation is becoming a focal point for all the global trade towards the strategic off shoring and becoming an appealing market.

Out of 6,40,000 villages in India, about 87 per cent of villages have population of more than 2000 people. Despite a rough estimation of about 3.6 million rural retail outlets, the distribution and marketing in these villages are very low and all this is because of uneconomical logistics (Deveshwar, 2005). Therefore most of the multi nationals are not showing interest in entering the rural markets.

In 2013 the multinational food companies with foreign direct investment (FDI) was worth of \$2.14 billion and continue to increase significantly. As of now the Indian retail market is estimated at \$490 billion and is estimated to grow at a pace of 6 per cent to reach \$865 billion by 2020.

A panel from Seventh Food and Grocery Forum pointed out that the grocery and food retail in this country will be about 69 percent of India's total retail market. (Seventh Food & Grocery Forum report, 2009).



Figure 1. Predicted Mall Distribution Space in India

Source: Technopak Analysis, CSO and other sources

#### 2.2 Retail Trends in Indian Grocery Market

There is a huge growth of mass discounters like Wal-Mart, Big Bazar and many more organized retailers. To fight with these big giants the small traditional retailers and the traditional departmental stores also started restructuring and repositioning themselves. On the other hand with the increase of huge competition and modernization, private labels started dominating and competing with the branded products. In addition to these the internet shopping has given a new shape to the retailing and the new light to the SCM practices.

The product should be available and always should reach the customer on right time. For this to happen there should be some process which makes the product move from one phase to the other in right time through right channel with less cost involved. When the system or the process through which the movement of the product is done properly with the reduction of wastages, right price can be set.

#### 2.3 Percentage of Cost of Distribution

In the year 2013 the grocery retailers have recorded a growth with an increase in the current value by 11% to Rs.16, 172 billion. The unorganized or the traditional retailers during this year accounted for 98% of total value of sales, thus dominating the industry.

Grocery retailers in India continues to shift towards modern grocery retailers channels, with hypermarkets and

supermarkets witnessing current value growth of 29% and 15% respectively during the year. (Euromonitor International, 2014)

In the current grocery retail scenario, one important point is very much about supply chain management. Currently about 75% of a typical product's cost is tied up in the supply chain. (Mishra & Hall).

#### 2.4 Impact of Pricing on Indian Consumer

The price factor in the Indian Market plays an important role in the performance of the retailer. Indian consumers precisely give emphasis on pricing of the product; hence the retailer must definitely offer the product at a very economical price. However today with the changing marketing strategies and the retail trends the companies started giving importance to various techniques of reducing the overall cost so as to reduce the prices and serve the consumers, without decreasing the importance on large variety and customization. Thus the competitive position in the market and the acceptance of the product by the consumers and the quality of the product is all defined by one factor called Price. (Dolan & Simon, 1996; Gabor & Granger, 1966; Sivakumar, 2000b, p. 294).

The retailer's differentiation cause an increase in the price levels at multiple points, though the price consciousness by the consumer is increasing. Of course just based on pricing we cannot ascertain all facets of competition because toady every retailer is willing to "give up", but in some contexts price is always an important measure of both marketing and financial strength. (Personal communication & Messura, 2006). All this can be possible only through proper Supply Chain Management.

#### 3. Literature Review

Unavailability of cheap funds for investing in the back end infrastructure for fresh produce, grading, packaging and storing in cold storage is the primary reason for no developments in the retail segment. Chetan Ahya (2006)

There is a growth in the retail industry and lot of change is happening in the industry. The growth of the changing habits of the consumers coupled with the growing market size in this country will double to \$150 billion by 2025. Increasing innovative formats, changing patterns, changing demographics and habits make the fuel for the growth of the organized food retail industry. Though the expectations are high, the real term growth is crippled by the sub-optimal supply chain management caused by low investments. KPMG (2010)

A research on how the consumers stated moving form unorganized to the organized retailers while shopping the groceries was done and the author found that the major reasons are because of quality, timely available of the stock and good SCM practices Goswami Paromita (2009).

The replenishment based model will focuses on supply chain improvement rather than the forecast based model, which enables the companies to increase sales by 20-30 percent in six months and within two years the company can increase the sales by 5% in the gross margin. Strategic sourcing can reduce expenses by 10 to 30 percent and today it is the era of collaborative models of multiple suppliers. Rajesh Sinha.

Today the retail industry is facing huge problem regarding the wastage and it is because of the inefficient supply chain system. Almost about 20 % of the food produce worth of Rs.10,000 Crore is getting wasted. Unless and until the retailers develop an efficient SCM practices they cannot have access to affordable superior quality food produce at an affordable prices.

The factors like Demand forecasting, data integration, financial flow management, supply-demand matching, collaborative forecasting, information sharing and synchronization of the movement of goods through efficient transport scheduling have to find their way into the food supply chain. The supply chain cost is about 12-50% across product categories and which now the focuses of the retailers to reduce this cost and thus make the product available to the consumer at a very economical price. In fact along with all this there is a huge development in the supply chain innovations, dominance of private labels, infrastructure and the policy amendments, which always creates lot of challenges for the retailers. Viswanadham (2010).

Chew et al. (2009) identifies the supplier Retailer relationship in context to the small retailers and look on the issues related to small and medium retailers about their efficiency and adoption of the new technologies.

Measure Twice, Cut Once-Planning, attention to details, and tested programs build excellence in retail operations A. T. Kearny (2010).

One of the researchers has done a study with a four stage framework consisting of:

- 1) Driving store value through voice of the customer, channel strategy and store business planning;
- 2) Delivering core store value through supply chain interfaces and store operations;
- 3) Enhancing store value through store life-cycle management, operating expense control and store technology

and finally;

4) Using the learning store for roll out.

This survey was conducted jointly by FICCI and E&Y. It highlights the key drivers of retail, drivers of change in supply chain, the paradigm shift from the traditional supply chain towards adoptive and real-time supply network with bi-directional information flow, retail supply chain challenges and mitigation strategies. Pinakiranjan Mishra, Ernst, & Young (2007).

Today there is huge competition the local kirana stores are facing and it is becoming difficult for the companies to understand the customers. Apart from this the SCM practices based on Inventory management, demand forecasting, replenishment, procurement and transportation, storage and many more are concentrated and discussed. This article emphasis on the issues and challenges the retailers are facing in implementing the SCM practices. Ketan Dewan, *Footfalls*, June (2010). One of the research focuses on the RFID implementations and its use on proper stocking of the goods on the shelves. The out of stock situations are very crucial in the proper flow of the Supply chain Practices. Ravi Mathur and Gopal Valecha, *Footfalls*, (2010). The inefficient inventory management is a leading cause for an inefficient supply chain management. Huge cost is invested in the improper inventory and thus huge capital is getting strained in the balance sheets. Raghav Gupta, Rohit Bhatiani and Pranay Gupta, (2010). The author highlights on the emergence of collaborative models in retailing and defines the focus on the retail back-end which is supply chain Management. Anil Rajpal & Pragya Singh (2009).

#### 4. Research Gap

Most of the literature emphasis on the importance of the Supply chain management and various tools of SCM having impact on the business of the retailer. But the gap identified is to find the significance of various variables on the Supply chain Management process.

- 4.1 Research Objectives
- 1) To identify the variables influencing the outcome of supply chain practices of retail grocery segment.
- 2) To elicit the relative benefits or advantages gained by the retailers with an efficient Supply Chain Practices.
- 4.2 Research Questions
- 1) Do the organized and the unorganized retailers follow different Supply chain practices?
- 2) What are various factors which play significant roles on the Supply chain Management practices?
- 3) What relative benefits or advantages are gained by the retailers with the Supply Chain Practices?

#### 5. Methodology

Aim of this paper is to identify the variables influencing the Supply chain Practices of the Indian retailers and the changing trends of the retail industry with reference to the grocery store.

In the competitive scenario prevailing in the retail industry today in India, each retailer has to acquire strength in his SCM practices. This calls for a close day to day monitoring of the SCM constituents, so that the retailers would be able to achieve success over their rivals. Unorganized retailers need to strengthen their competitive advantage by revamping their SCM practices by studying the SCM practices of successful organized retailers. This alone can help them to sustain in the trade and grow. With a revamped SCM practices these retailers would be able to supply right product to the right customer at right time and at right price. So the focus should be on the following constituents of the SCM practices: procurement, inward and outward logistics, inventory, pricing and managing shelf life of products. Hence this article focuses on supply chain planning, sourcing and procurement and execution practices adopted by the Indian retailer and how they need to function for a better performance.

#### 5.1 Sources of Data

The sources of information required for this paper was collected from journals, editorials, professional communities and internet resources and from various Supply chain Management magazines and text Books reviews. All the sources which are considered to include works in Supply chain Management and on Retailing were considered for data collection

5.2 Challenges Faced by Indian Retailer in Following the SCM Practices

Though there are a lot of developments happening in the retail industry across the globe, in India there are many challenges the retailers need to face in implementing the SCM practices.

#### 5.3 Complex Structure

Retail supply chains in India include a large number of intermediaries, resellers and distributors facilitating collaboration between retailers on the one end and farmers or consumer goods manufacturers on the other. Fragmentation issues make it difficult for retailers and their suppliers to effectively collaborate on forecasting, replenishment and inventory management. (Supply Chain Brain, 2013)

#### 5.4 Taxes

The tax system in India has a major impact on Supply chains. The complex system of state, national, city taxes on every product will add extra amount on the pricing and thus creates a hurdle in building an efficient supply chain system. In fact to reduce this complexity and increase the interstate trade, the government of India has also introduced a system called Goods and Services Taxes (GST), which aims at integration of taxes. However this system will definitely help the development of transport and warehousing hubs across the country and may lead to a better SCM practices.

#### 5.5 Infrastructure Building

As of now the Indian market which is dominated by the unorganized retailer, who rarely have given importance to the SCM practices or the logistics and other infrastructure development. But today to survive in this current competitive market, the retailers need to concentrate on the infrastructure availability which can be the backend support. Before a retailer starts a shop he has to evaluate the logistic services available and other value added service providers available. Currently the third party logistics providers and service providers are very less. Their increased presence in the country will support Supply chain process maturity, regional scope and capabilities.

#### 5.6 Training the Personnel

Most of the retailers are unorganized and never had any system of logistics or SCM practices. Though they practiced some raw methods, most of their processes ware done only by an individual and very few partners in the chain. But now as the system is increasing and developing, the personnel have to be trained on the system prevailing and the technology used for the same. So technological up gradation is necessary. The retailers also need to invest on the training of other partners.

#### 5.7 Lack of Collaborative Process

It sometimes seems to be difficult for the Indian Retail firms and their supply chain partners to collaborate on forecasting, replenishment and inventory management processes. Because of this lack of collaboration, longer lead times and inefficient end-to end supply chain takes place. (Viktoria, 2013).

Though retail in India is making progress and is expected to grow more than \$879 billion by 2018, the country loses \$65 billion every year due to inefficient supply chain systems, says a study report. As per the report published by CII, India is ranked 47th rank on logistics when compared with Japan, US, Germany. Currently, the retail industry in India is a \$410 billion market and is expected to grow to more than \$879 billion by 2018. Food and groceries account for 70% of the retailed items followed by textile and apparel at 7%. However, 95% of the retail sector is unorganized and fragmented.

#### 5.8 Other Challenges

At the company level, retail in India is facing challenges like product proliferation, high-level of intermediaries, fragmented and large number of retail outlets, suboptimal supply chains and lack of supply chain visibility. (Moneylife Beta, 2014)

To bring a balance between the supply chain practices adopted so far and emerging trends and futuristic technologies, one of the reports suggests adoption of an "intelligent supply chain". It speaks of a paradigm shift from traditional supply chains towards adaptive and real-time supply networks. "To achieve profitable growth over the next few years, supply chains need to be realigned into efficient, agile and adaptable networks," says the report. This, in turn would help manage costs, ensure product availability and be highly responsive. (Aggarwal, 2007)

There is a need for informational and technological intervention to tackle the current bottlenecks by using supply chain technologies like Radio Frequency Identification, barcode scanners, point of sales terminals, hand held devices and software packages. It reveals that 85 per cent companies use IT to capture and analyze real-time information for effective decision making.

The growth momentum is very strong in the Indian retail sector. Both domestic and foreign investors are expected to continue their expansion in this sector in 2013 and beyond. However, they need to be aware that this

market is very diverse and complex, and currently the prevailing supply chain represents a major hurdle to establishing effective operations and achieving profitability. Retailers should think that an efficient supply chain will be poised to achieve competitive advantage in this fast-growing market.

#### 5.9 SWOT Analysis of SCM Practices

Foreign Direct Investment (FDI) in retail has been a contentious issue in India for years. International supermarket chains like Tesco, Wal-Mart and Metro have been pushing for restrictions to be lifted to allow them greater access to one of the world's fastest growing retail markets. With the Globalization and liberalization there is a huge development of economy with the increase of lot of multinational products and thus the development of Supply chain practices and logistics took place which eventually lead to the growth in food industry and processing industry.

#### 5.10 Strengths of SCM Practices in Indian Retailing

India has the highest number of retail outlets in the world at over 13 million retail outlets, and the average size of one store is 50-100 square feet. It also has the highest number of outlets (11,903) per million inhabitants. The per capita retail space in India is among the lowest in the world, though the per capita retail store is the highest. Majority of these stores are located in rural areas.

As majority of the unorganized grocery retail stores are concentrated in rural areas, by adopting improved SCM practices, they can exploit the rural market at relatively lesser cost and better integration practices.

An organized retail segment has established a huge networking with many suppliers and manufacturers and record efficient performance. By strengthening the relationship with Agro business value chain and sources, this segment has enormous scope for achieving better prospectus.

The grocery retailers can also achieve scale economy thereby improving their competence in the SCM practices. In this regard over hauling the current trade network in the grocery segment can grow at a faster rate.

An efficient SCM practices will give lot of advantages on the costing of the product over the rivals. It becomes strength for the retailer in creating distinctive competence in distribution systems at the same time an automated and efficient distribution of goods into its stores, from manufacturers to its fleet of delivery trucks that made daily deliveries to surrounding stores.

#### 5.11 Weakness of SCM Practices in the Indian Retailer

Majority of the Indian Retailers are all very small and handled by single owner with less investments they mostly cannot invest huge money on technology developments or any other necessaries for the improvement and the implementation of better SCM practices.

As most of the Indian Retailers all having some crude structure of relationships with all the suppliers which they maintain may never lead them for the emergency of the latest technologies and other infrastructure for the SCM practices. But these with the increase of the organized retailers in this country are making the unorganized retailers face difficult situations and thus are facing big challenges.

Retailing is subjected to a plethora of laws and regulations. There is no uniform tax system in this country with multiple layers of taxes. Retail sales in this country accounts for 44 percent of GDP. Modern and the organized accounts for just about 1.6 per cent of total retail sales.

Another important point is that the data related to the sales at Point of Sales (POS), Sales Volume, inventories, proper warehousing, warranties, compliance issues, improper planning of the end-of life goods, suppliers selections, procurement policies, financial issues, customization of the distribution process, quality systems, reverse logistics, proper spend analysis should all be properly maintained and should be shared with the other partners of Supply Chain members. But in this country the major weakness is improper flow of information and lack of relationship among channels partners. It is known that better that the collaborative planning will give better results than the individual planning for an efficient Supply chain management.

#### 5.12 Opportunities before the Indian Retailers

The Indian government recent policy decision to allow 51% of Foreign Direct Investments (FDI) in multi brand and 100% in single brand retail created a huge opportunity for many retailers to expand their markets. The FDI openings increased the opportunity in establishing the Cash and carry formats, Single Brand retails space. The giants like Metro, Wal Mart and Tesco have already entered in this country doing the business efficiently and that is all possible only with a meticulously planned SCM practice. Of course the market being dominated by 95% of unorganized retail sector is also taking care in protecting them. The government policies are creating a mandate

for investing \$100 Mn with half of it should be invested on Infrastructure, storage, Packaging, Transporting. Further, foreign retailers will have to source a minimum 30% from the Indian small and micro industry. (Cedar)

The government policies will impact a wide cross section of the Indian population. Every consumer can save 5-10% on their regular spend and at the same time get a wide variety of assortment. Every farmer will get almost 10-30% higher remuneration for their products as a back end infrastructure investment will eliminate the middlemen.

The blend of investments and starting new retail stores can provide a way to increase the real estate and create 3-4 Mn new jobs and 4-6 Mn jobs in Logistics, Contract labor security etc.

Even though the organized retail segment has a minuscule share in the total industry, it has enormous potential considering the increasing urbanization, raising standard of living, the efficient supply-chain, the read available retail space, and modern technology, which help in reducing consumer prices to a great extent. The 700 million Indians residing in rural India are an opportunity that retail and consumer (R&C) companies cannot ignore.

#### 5.13 Threats Faced by the Retailers

Today the retailers are facing a tough time with the imitation brands. These brands are very close to the original brand and are difficult for the consumers to distinguish. (IASMS, BANGALORE, INDIA). Proliferation of duplicates in the market is posing a major threat for the grocery traders. Such duplicate products are also sourced internationally. Therefore the grocery traders become the victims of such an environment prevailing in Indian Market.

The long standing retailing in this country has seen a huge market with enormous customer's base is now facing a threat with the boom of the organized retailers. The retailers have experienced the consumers' relationships and decent business with them. The customers also had good time with the known retailers and the credit facility they got from the unorganized retailers. But now the biggest threat the unorganized retailers are facing is the change in the retail industry. The entry of the organized retailers is creating a huge impact on the consumers and thus making the consumers divert from unorganized to organized retailers. This is because of the stock organized retailers maintain the quality of the products and the technology used in serving the customers. The unorganized retailers are unable to cope up with the latest technology and thus design an efficient Supply chain practice. This is a major threat for the survival of the unorganized retailers in competition with the organized retailers. Apart from this most of the unorganized retailers may not be that much capable in implementing the latest technology as till date they never used or rather they never had the need for Technology. Thus SCM Practice requires a proper procurement cycle done at the suppliers and then the Manufacturing cycle at the manufacturer and the Replenishment Cycle at the Distributor and finally the customer order cycle at the retailers, but current system go in a very unorganized way and thus for an this may be a threat in implementing.

#### 5.14 Need for an Effective SCM Practices

Today's retailers to sustain in this competitive world need to have an efficient and effective Supply chain management so as to purchase, operate and distribute the goods on time to various store and have a good integration.

Retailers need to develop and formulate a highly structured and advanced Supply chain Process, so as to enhance the competitive advantage.

#### 5.15 SCM Models of a Successful Retailer--Wal-Mart

Wal-Mart has been able to assume market leadership position primarily due to its efficient integration of suppliers, manufacturing, warehousing, and distribution to stores. Technology plays a key role in Wal-Mart's supply chain, serving as the foundation of their supply chain. Wal-Mart has the largest information technology infrastructure of any private company in the world. Its state-of-the-art technology and network design allow Wal-Mart to accurately forecast demand, track and predict inventory levels, create highly efficient transportation routes, and manage customer relationships and service response logistics. Thus it is proved that the above strategies followed by Wal-Mart has given that company a huge success as a discount store, in store variety and dominant force in a competitive global market.

In the current global scenario with uncertain economic conditions, retailers need to develop more agile/responsive supply chain management (SCM) strategies. Thus retailers need to put greater emphasis on the maintenance of a proper balance between the cost and the service. (Wesley et al., 2011).

In a country like India retailing can never be as a one size fit for all the businesses and thus the literature suggests that the SCM strategies used by retailers depend greatly on the nature of each retailer's model.

Rajeev Kumar commenting on the SCM practices followed by some Indian retailers observed that every retailer needs to share information with their suppliers relating to customer buying behaviors consistently. Sharing of information creates a foundation for mutual trust and long terms partnership thus satisfying the customers 'needs at low cost. This kind of orientation and strategy will lead to a smooth supply chain process. (Kumar, 2012)

Thus with the above issues being considered in context to the Indian environment, the model proposed for a better supply chain Process can be designed with basic three factors for the Supply chain Management. Initially any SCM practice should have some variables which always lead to a better supply chain planning. The variables like Demand forecasting, material requirement planning and many more. The second factor Sourcing & Procurement with suppliers selections, spend analysis, procurement variables makes an important roles in the SCM practices. Along with these factors the third factor on Supply chain execution is very important in proper functioning of the supply chain management.

#### 5.16 Conceptual Model

Retailing is entering into a new era and new markets where the consumers have changed with lot of expectations and demand of all store experience. Thus the availability of stock and the merchandise is very important for retaining and the acquiring new customers, which makes the retailers to follow different SCM models. The Review of literature has given an insight into many models which have discussed on various factors which play a major role on Supply chain Planning, Procurement and Execution.

An efficient and effective supply chain management differs by the format of the retailers and it is dependent on the retailer's business strategies. Different factors which were identified make the product to sell in an innovative way and thus illustrate the effectiveness of the SCM practice support for a better performance of the retailer.

In a model defined by Johanna Småros, Juha-Matti Lehtonen, Patrik Appelqvist, Jan Holmström emphasis on the vendor managed inventory, replenishments, distributors planning, non VMIs was done. They have looked on the impact of increasing demand visibility in production and inventory control efficiency. Hokey Mina, Gengui Zhou (2002) concentrated on horizontal and vertical structure of retail SCM with focus on Tier 1, tier 2 and tier 3 supplier and on the other side the customers. Adrian E. Coronado Mondragon, Andrew C. Lyons (2004) focuses on Manufacturers, warehousing, retailer and finally the consumer.

Technopak (2012) has come out with a model which focuses on stock out, inventory level, transportation cost, replenishment cost, supply & demand planning, inventory optimization, retail merchandise, procurement, quality in formulating the SCM practice. The retail value chain works on how the integration happens and how the distributors, intermediaries and retailers play a major role in the SCM implementation. In one of the studies done by Cybage company has come out with a model emphasizing on Supply chain planning, procurement and then execution of SCM practice in manufacturing sector which looks on a value delivery of the product to the customer.

Thus taking all these models into consideration and finally identifying the factors which would make an impact in the efficient and effective SCM practice for a retailer were used to define this model. This model was framed based on how a retailer will do the supply chain planning and then go with the sourcing and procurement procedure and finally how the implementation of the SCM practice leads to the better performance of the retailer. The factors identified were tested with the factor analysis (Principal Component Analysis). The factors were tested with loading and finally some of the factors were set by the loadings. The items which had higher factor loading were considered important and were eligible for assign name or label to factor that will reflect the variables loading on that factor. (Hair et al., 2009)

For Supply chain planning a total of 41 items were reduced to 5 factors namely Demand forecasting, Vendor Managed Inventory, Material requirement planning, Logistics Planning and Inventory planning. The total forty questions reduced into five main factors explaining 39.5 percent of total variance. The items loading under these five factors were loaded between 0.78-0.43

For Sourcing and Procurement a total of 18 items were reduced into 4 factors. The total eighteen questions are reduced into four factors viz., for self-supplier relationship, spend analysis, and contract management and supplier integration. The total eighteen questions reduced into four main factors explaining 45.7 percent of variance. The items loading under these factors range between 0.63-0.43

For Supply chain execution a total of twenty three items were taken into factor analysis and reduced into five factors viz., for reverse logistics, radio frequency identification, warehousing, and inventory management linked to execution and transportation. The total twenty three questions reduced into five factors explaining 40.2 percent of variance. The items loading under these factors range between .071-0.36.

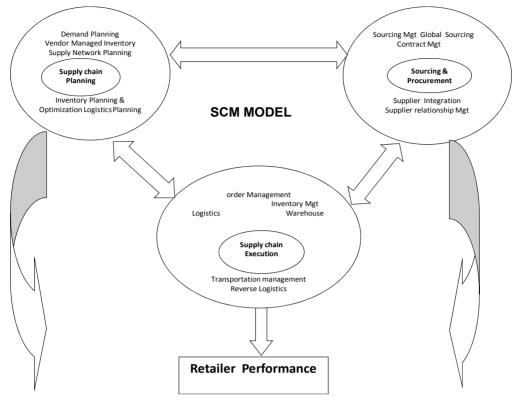


Figure 1.

#### 5.17 Variables of SCM and Their Roles

The role of SCM is very crucial for the Indian consumers Demands at affordable prices and variety of product mix. It is the supply chain that ensures to the customer in all the various offerings that a company decides for its customers, be it cost, service, or the quickness in responding to ever changing tastes of the customer.

Customers and consumers today want products at low price and also the fresh product, for which the traditional methods of stocking for a long time and then selling to customer at high price will not work out in the current situation. In such situations the retailers are dependent on the "Just-in-time" concepts and also providing a fresh product at a very low price. This is how the evolution of the low and affordable priced and fresh product delivery has taken an important role in the SCM practice.

These situations became hard for the unorganized retailers to stock and create a low priced product and drive the consumers towards them and on the other side with the entry of large companies with huge investments are creating many strategies to fight the competition. However the unorganized sector which has created generic impressions in the minds of consumers as credit facility and long attachment is also able to maintain their business comfortably with their SCM practices and business model.

#### 5.18 Every Day Low Pricing (EDLP)

The organized giants started coming out with the concepts of Every Day Low Price policies, store development, retailer-supplier relationships and general aspects of the reorganization, which play a key role in the efficient functioning of many retailers. (www.ingentaconnect.com) Studies highlighted on how retailers are trying to escalate their profit margins by strategically setting initial prices before the markdowns and at the same time decreasing the supply chain costs. Designing more efficient operations as well as lowering inventory levels aid in cutting overall supply chain costs. It is also evident that in spite of efficient SCM practices the profitability of the retailers may not increase as the consumers are getting the products at the lower prices and thus consumers are real beneficiaries from more efficient SCM practices.

The major category dominating the organized and the unorganized retailer will be by the FMCG goods and SCM activities linked with FMCG goods will play a major role on the performance of the retailers. Some of the key issues related to the retail industry are order fulfillment and replenishment which discusses on primary sales, stock level at each link in the chain. This information is linked to the supply chain elements like inventory

visibility, retail level data and bottom up information aggregation. The SCM practices also emphasis on the stock levels, aging sales vs. production and stock, possibility of sales promotion. More than this the performance of the retailer also depends on how the retailer forecasts sales, current trends, inventory levels etc. SCM practices also looks on the replenishment activities and the freight management, packaging, warehousing etc.

#### 5.19 Stock Keeping Units

The unorganized retailer are very much dispersed, not much buying power for the retailers and even the customers, but today with the increase of larger retailers every retailer is concentrating on number of SKU's and with high number of variety, sizes, offers. Thus rationalization of SKU's is required to customize the cost.

According to Economic Times Intelligence Group (ETIG, 2002) how to get the product at the right time, in the right quantity, assortment and best cost is the challenge for retail logistic. Most of the companies state that they undergo the process of Cost cutting, but heading the list was control of supply chain cost.

#### 6. Retail Logistics

David Gilbert 2003 quotes that Retail logistics is the organized process of managing the flow of merchandise from the source of supply to the consumer- from the producer, wholesaler through the warehouse, transport to retail units until the merchandises sold and delivered to consumers. The major functions of this system is to move the goods, holding the goods at the stock keeping units and holding the stock in sufficient quantities to meet the demand from the end customers.

#### 6.1 Supplier Relationship

New ventures and alliances and negotiations with vendors is increasing and the concept of third party units is also increasing rapidly. Supplier Relationship is other important issue which an efficient SCM practice will address. Most of the retailers today are very much concerned by the suppliers and vendors relationship with each other. To quote an example-Subhiksha's problem slowly lead to the closure of the store. An unhealthy relationship will create lot of problems in running the business. The company Subhisksha faced problems with the retailer's payment track records and later the vendors stopped supplying the products to retailers as there was a gap in the payment scenario.

The channel relationships will create a cordial relationship between the members in the chain and thus will have a smooth flow of the product from one point to another and finally the consumer.

The customer's satisfaction can be assured when the feedback from the consumers and the feedback from various points in the channel members reach the manufacturer than the grievances and the actions taken to solve them will be reaching at the right time and to the right point in the chain.

#### 6.2 Transportation

Another major issue the organized retailers or the unorganized retailer face is the internal logistics problems; this is in fact a major challenge for the retailers. Today it's an era where the consumer is becoming more time conscious and more demanding, the need for just-in-time (JIT) services are increasing. Most of the large retail chains are following the western style of outsourcing the logistics' to a third party, so as to better manage the complex supply chain network and thus focus on their core business.

Some retailer as discussed earlier in order to reduce the cost on the intermediaries, make direct transaction with the manufacturers thus get the product directly and display as sale outlets. But in cases where one cannot maintain such channel has to go with the internal logistics system to get the product from the zonal or nodal warehouses. In such cases some retailers have their own vehicles to transfer the products and those who don't have will hire the logistics company and transfer the product to the customer. This work will be done perfectly by experts, named as Third Party Logistics Company. In these cases the transportation cost is always an extra cost on the customer.

Now the basic issue which arises over here is "what is the quality of work done by the out sourced company"? Contracting the work to a contractor is an easy way out, but then again, the quality of contractors and their dedication is another question which needs to be taken care.

The impact of outsourcing logistics services on supply chain can be measured as an alliance of outsourcing and logistics. As the third party logistics started getting rapid growth in the supply chain practice there is a huge expansion of technologies and services which can be implemented. In fact these types of services are the fascinating initiatives as suppliers hubs managed by the third party. Thus the proper functioning of the SCM happens when there will be an integrated and collaborative functioning of all the people connecting the retailing.

The boom of logistics and the third party getting involved is all about the stock stored and the delivery of the goods to be done on time. To do this the retailer should have an awareness of stock available in the inventory and the process involved in storing the available stock.

#### 6.3 Inventory Management

Inventory is the biggest cost factor and if not done properly will become a biggest cost drain. Thus the major benefits with SCM is reducing the inventory cost with very less stock and thus follow the JIT system, which in turn reduces the cost as well as the defective products. Thus with less stock on the brands the money can be invested on the variety of the assortments and can maintain the stock.

#### 6.4 Storage Facilities

These are the facilities about the warehouses and the distribution centers or some stock rooms the retailers are having. This is where the retailer's stock the product and keep the record of the stock so as to meet the demand of the consumer. The interlink between the warehouses and the inventory maintained by the retailer will have an impact on the sales and the cost of the products.

#### 7. Communication and Technology

IT is used to develop new analytical tools for operational and planning decisions that the retailers face and these types of developments will take the advantages of the capabilities offered by emerging information technologies in retailing. Consequently, a number of the decision support prototypes are getting developed and later converted into operational software systems and application software products by independent vendors. Thus IT has led to an array of retailing applications that constitute a great success story for management science and for supply chain management in particular. Hence the supply chain management will be perfect if all the suppliers work in coordination and are kept in sync with fast paced market and of course this is what the challenge. Thus today to sync or to coordinate with each other, Information Technology is giving its support in proper building of the SCM.

Technology synchronizes and balances the system at a very low cost and results in a high customer service level.

The core of SCM focuses on inventory, distribution, production, and payment cycles. As a result, the existence of information technologies, and thus, the actual information sharing among parties involved are crucial (Anantadjaya & Nawangwulan, 2006; Li, 2002; Siem, 2005).

Harrison et al. (1999) argue that the improvements in the use of information technology will help in capturing a 'real time' data, which indicates less reliance on forecasts and create a virtual supply chain between trading partners. Therefore the improvements in the Technology are helping the partners in Supply chain to share the information and the process between partners who can later focus on their core competencies.

One of the reports says that in India a lot of technology and informational interactions are required to face the current bottlenecks of using supply chain technologies like Radio Frequency Identification, barcode scanners, Point Of Sales terminals, handheld devices and software packages. (Agarwarl, 2007)

Retailers gain Supply chain related benefits through the use of Internet like Collaborative development, timely information sharing, reduction of inventory as per the demand required, reduction in the communication cost, enhance the relationship between the customers and the retailers through customization. Easier to exploit the current markets and track the trends happening.

#### 8. Procurement

Coming to the next factor is the procurement process of the product from various suppliers and stocking in the retail outlet is another important factor in the SCM practice of the retailer. Today most of the retailers look at the need and product specification for a good merchandise procurement process.

Today most of the retailers are very keen in first identifying the need and product specifications. While analyzing the price requirements, Quantity requirements, and the functional requirements are to be analyzed properly and then the brand name, time and quality while delivery are all important before the supplier is selected and then giving orders. With a proper procurement system the concept of overstocking and under stocking can be reduced and gradually concentrate on the Just in time procedure which reduce the stock and inventory.

#### 8.1 Demand Forecasting

This is another factor which plays a vital role in the SCM practices. The retailers can concentrate more on the demand management and thus sell the existing products more and create demand for new products through collecting orders.

Distribution Channel structure can be designed very meticulously and thus the flow of product between the intermediaries would decrease drastically. This will have an impact on the cost of the product and the pricing of the product before it enters the hands of the consumers.

#### 8.2 Reverse Logistics

The distribution of end-of life products is another major issue which enhances the cost reduction and removing the waste products. The aspects which will be discussed in the end-of -life products flow are the design of the reverse logistics network and its interaction with the forward logistics flow, the analysis of transport routes and the internal logistics used all make important points for a better SCM practices. (Rubio, Chamorro, & Miranda, 2006)

Vendor Managed Inventory (VMI): was first practiced in the early 1980s by Wal-Mart and Procter & Gamble in which the vendors take up the responsibility of inventory management of retailers/customer based on sales figures made available by the retailer/customer. Nowadays, the industries outside retailing are also using the concept of VMI. VMI promises a win-win situation for both customer and manufacturer. (The IUP Journal of Supply Chain Management, Jun, 2013)

#### 8.3 Warehousing

Now a day as the number of outlet for the organized retailers are increasing and in order to maintain a proper stock levels and an efficient supplies to all the outlets, most of the retailers are maintaining a centralized warehousing and from there the supplies happen to all the stores. This was the first step change in the supply of fast-moving consumer goods (FMCGs) in that buying and distribution became a headquarters function in retailing, and the logistical infrastructure created a market for third-party logistics service providers. Thus the process of Centralization enables the retailers to reduce lead time, minimize inventory and make greater product availability.

Currently the country has the most diversified and fragmented produce-supply chain. Precisely speaking about 30 % of the fresh produce is always wasted before it actually reaches the market. Once the fruit is plucked from the field it has to pass six to seven intermediaries before a consumer buys it resulting in tortuous journeys, big markups and poor quality which ultimately damages the product at the end of the day.

Therefore most of the retailers in order to delight the customers are trying to replace their existing supply system with efficient network of international quality of supply chain and adapting it rightly to Indian conditions. (India Retailing, 2010)

For a retailer to assess the tradeoffs to meet the needs of the customers and parallel looking at their profits, a proper and technically evolved Supply chain process can help. Supply chain planning helps dramatically increase forecast accuracy, streamline product introductions, assess promotions and create plans attuned to the market; and supply chain execution provides transportation, warehousing and inventory management to ensure cost effective order fulfillment and on-time deliveries. (India Retailing, 2010)

If the customers don't find the goods and services promised by the retailers in the store, then obviously customers will get frustrated and they take the action which may be moving them to other retailers. Thus the customer loyalty will be lost and the retailer will lose the customers, which in turn will create loss of sales and revenues. It is known that to acquire a new customer it cost very much high rather than keeping the existing one satisfied.

The customer's order makes the starting point of the interconnected activities of supply chain and this comes to an end when the goods are delivered into the customer's hands. Waskita, 2007 quotes that to deliver goods to the end-user; it requires a network of contributions from parties involved; retailers, wholesalers, distributors, manufacturers, and raw materials suppliers.

Today the retailing is changing more and more with the increase of International retailer and brands and thus making the domestic players to be dynamic in order to survive with the competitors.

Foreign Direct Investments allows foreign retailers to operate in India. This would bring along competition and ultimately bring down the prices, thus making the economy stronger.

#### 8.4 Collaborative Effort

Retail market today grow with the help of the all the stakeholders who join together and make an efficient Supply Chain by using all the latest systems of SCM as well as Logistics to take the good produce from farmers to Consumers. This collaborative system will facilitates the consumers to take the quality product at an economical price. It is evident that consumers are not only looking for the benefit they are getting from the

product but more concerned about the value additions they are getting from the retailers and the economical prices and quality product from the retailers. All these can be achieved by an effective and efficient Supply chain Management. Thus in this process, Government and the private operators are coming together to improve lot many facilities like infrastructure, information sharing and the service required for much more better SCM practice. This is all looking at one side of the coin and the other side is the survival of the unorganized or the traditional retailing. If only the emphasis is done on the best practices followed by the organized retailers and even more trying to improve them then there will be day where all the unorganized retailers will vanish. Thus there should be some development system where the SCM practices of the traditional retailers can also be emphasized and even define them some good SCM practices so as to protect them from the organized retailers.

Thus after looking all these SCM practices in a simple way is integrating all the above and make the product reach the customer at a time which is required by him with perfect quality and above all at an affordable price. (pbr.co.in)

Summarizing the discussion above, SCM is stated as follows

The process of strategically managing the product procurement, movement, storage and the inventory (and the related information flows) through the organization and its marketing channels in such a way that current and future profitability are maximized through the cost effective fulfillment of orders. (Christopher, 1998, p. 4)

#### 9. Conclusion

With the emergence of many retailers coming in the market it is necessary that specific forms of distribution or channel services are adopted. Information Technology has added value to the Supply chain management by increasing the efficiency, effectiveness and ultimately overall profitability. Parallel controlling merchandise has become very important in the retail industry. Thus with a perfect SCM the organized retailers are gaining the competitive advantage over the unorganized retailer in many aspects like inventory management, shorter time for restocking, greater efficiency and control.

As India is dominated by the unorganized retailers and about 12 million Kirana shops are prevailing. The kirana Stores are very tiny in nature and only offer a small and unreliable selection of goods. These kirana or the unorganized sector will remain the replica all over; the way they have penetrated in this country is stunted and never be scratched. As these have the advantages quick accessibility which gives the customers fast buying and by free home deliveries the organized retailers are not able to swap them on this recital.

Though the domination of the traditional sector is prevailing in the country the importance of the organized segment is increasing, the retailers should keep in mind the requirements of both the primary and secondary customers while deciding on brands and the numbers of SKU's are stocked.

Finally the traditional retailers need to look at this change and customize every issue as per the customers need. The retailer has to use an efficient logistics network, should understand and analyze the signals of market demand and plan accordingly. The product should be differentiated from the competitor's products and manage the sources of supply and develop the chain with required technology enhancement and adopt channel spanning performance measures. On the other side old and obsolete practices should be eradicated and new technologies and Supply chain practices should be implemented, so that the downstream and upstream SCM happens smoothly.

An industry with about \$6.6 trillion turnover globally and 2<sup>nd</sup> largest employer and 18 million employments, India should do a lot on the Supply chain management to make this industry move smoothly. The collaborative effort between the parties creates basic necessities for creating the Value added services to the customers. These value added services will create the customer satisfaction and leads to a better relationship between the retailer and the customer.

In the prevailing retail industry scenario the existence and performance of the retailers will depend on the Supply Chain Management practices followed by them. A retailer can only delight a customer by his efficient supply chain practice. SCM doesn't only consist of logistics, inventory, distribution issues related with the product, but also linked with the survival of the organization. Consumers are dynamic, markets are dynamic, trends are changing, purchasing capacities and tastes are changing, and thus demand is changing and in such situation unless a retailer maintains an efficient supplier and have an integrated supply chain practice will never be successful.

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## Model Confirmation through Qualitative Research: Social Support System toward Entrepreneurial Desire

M. Amsal. Sahban<sup>1</sup>, Dileep Kumar M. <sup>1</sup> & Subramaniam Sri Ramalu<sup>1</sup>

Correspondence: M. Amsal. Sahban, Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia, Malaysia. E-mail: amsalsahban@yahoo.com

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#### **Abstract**

Entrepreneurial world is trying their best level to attract university graduates across the world. Indonesian culture is still very colonial view that the status of employment is more respectable than being an entrepreneur. In addition, people often perceive that a university degree is much better and more important than a person's ability or skill. In fact, the skill is very much needed to support a person's life economically, instead of looking for a university degree first then searching the skill or capability. This is one of the fact encountered that most of them who have a university degree but unemployed. In Indonesia, the number of scholars unemployed is getting higher statistically because most of them only rely on job vacancies, instead of becoming job creators. There is no motivation from various environments like family, friend, educational institution, etc. to build student's mentally strong with business awareness to deal with entrepreneurial issues. Yet, when someone interested in pioneering new business, they are desperately in need of an endorsement. Entrepreneurial support usually comes from a family, partner, peers and educational institutions where they can discuss the idea of becoming an entrepreneur and entrepreneurial issues further seeking best of suggestions. A study of qualitative was conducted among Indonesian universities and their social environment that identify the factors influencing social support among business graduate students to become an entrepreneur. The study follows focused group discussion, interviews, case analysis and Delphi technique to arrive at appropriate variables on social support factors among business graduates. The study observed 2 dimensions of social support that eventually suit the attitude of business graduates to become an entrepreneur. These elements were recognized by the group of professionals from various fields. This study provides an insight into the variables of social support among business graduates to become an entrepreneur in Indonesia. It is expected that the graduates later become the inspiration for others who are capable of creating jobs and giving a contribution to improve economic development in Indonesia. A business awareness and social supports are very much needed among university graduates by changing their mindset in dealing with entrepreneurship.

**Keywords:** social support, entrepreneurship, motivation, students

#### 1. Introduction

Decades ago, Schumpeter (1934) once said that "essentially, the entrepreneurs will drive the economy." This statement is really tragic if it is linked to Indonesian economy with a high rate of unemployment and lack of job opportunities. A good entrepreneurial climate, in fact, will be able to overcome this severe problem. However, it is not that simple to start a new business. Many people who are engaged in small business like street ventures, small shoppers, etc. are perceived as almost equal to unemployed and are not considered as good ventures by the Indonesian community. While these small businesses are extending better turnover and good return on investment to the business starters. Here, the small ventures are associated with social stigma that these entrepreneurial Jobs are less prestigious as a government job. Whereas, it is obvious that when someone intends to pioneer new business, he desperately needs a support. Support for entrepreneurship usually comes from a family, partner and peers where they can discuss the idea and the problems encountered along with the ways to handle the problem (Mustikawati & Bachtiar, 2008). Substantiating these issues, one study also revealed that the existence of a social risk associated with starting a business, therefore the fear of being demeaned and ridiculed when facing a failure in business and there is a negative perception toward the failure (Phikala & Vesatlenein, 2009). Meanwhile, most the parents of university students perceive that the risk of being an entrepreneur is too

<sup>&</sup>lt;sup>1</sup> Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia, Malaysia

high (Hartanto, 2011). Such negative assumption sometimes becomes a constraint and discourages someone to start with entrepreneurship.

In a study, Amalia (2012) further found that the students have less confidence to be entrepreneur. They do not have the support of parents to become an entrepreneur. Parents tend to expect their children to work in a company instead of being an entrepreneur. A lot of parents often unconsciously forcing the will of their children and the parents are unable to distinguish between their desire and the children's desire (Mustikawati & Bachtiar, 2008).

#### 2. Literature Review

It appears to be widely known in most studies that social support is a multifarious and multidimensional construct, there are lots of disagreements on exactly how it is best conceptualized, interpreted and/or measured (e.g., Barrera, 1986; Thompson, 1995; Lakey & Cohen, 2000; Lopez & Cooper, 2011).

Social support is a pleasant feeling, having attention, self-esteem or the aid received by people or group (Cobb, 1985). Further Cobb (1985) emphasizes social support on personal ownership toward the social communication networks and the need to cooperate with each other. Social support is generally defined as the presence of other people who can be trusted, people that make others loved for, pleasures that cannot be quantifiable. Sarason et al. (1987) explains social support as a regular interaction with other people and immediate family members or relating to the provision of duties and attachments. Social support is the social way of communicating with others to manifest love and care for others. This kind of support serves as building blocks of social, psychological and biological integrity. Both formal and informal support networks have been seen as a central element of an individual's social capital, a valuable resource that contributes to better health chances (Goodwin, Costa, & Adonu, 2004).

Social support in reality can be understood as caring for one, providing for the needs of others, strengthening the social network of people globally. These resources that a given to others can be emotional, for example, in providing for the financial needs, providing adequate information for them and giving them a wonderful advice.

Social support comprises of the characteristics of a good social relationship among people, readiness to give them assistance. It happened through a close relationship to others, for their right to keep an obligation and to maintain good will with others. Social support can be explained in a different way, depending on one's understanding relating to it. It can be described as a resource giving to others, embracing care for others or giving out one's resources to others. Different type of social support have been identified like the instrumental support that can help to solve a problem on how people feel for others as well as reasonable support for like giving of goods and good advice but to mention a few (Schwarzer & Rieckmann, 2000).

Social support refers to the potential entrepreneur's beliefs and expectations about the support he or she will receive from groups to which he/she belongs (parents, siblings, and spouse) and from other reference groups (friends, colleagues, and teachers) in the case of setting up a business or going self-employment (León, Descals, & Domínguez, 2007).

Albrecht and Adelman interpreted social support as interaction between recipients and providers that diminish uncertainty about the situation, the relationship or others and functions to enhance the perception of personal control in one's life experience. Referring to this definition, according to Mattson's Health as Communication Nexus (2011) the basic features of social support includes:

- Communication
- Uncertainty reduction
- Enhanced control

Based on this definition, social support refers to an approach of having a good interaction to other people with the aim of addressing their needs and affecting them positively to be a better person and to be in charge of any giving circumstances they find themselves in (Mattson's Health as Communication Nexus, 2011).

Hupcey (1998) describes social support is a multi-faceted ideology that is very complicated to understand, to explain and to measure. Despite this idea has been widely looked into, there is few acceptance among researchers as to its theoretical and applying its definition. Therefore, the understanding remains unclear and everything that relates to social relationship could be regarded as social support. Researchers of social support have constantly neglected the difficulty of the concept and the measurements relating to the changes in its simplicity. He also suggested that social support with a good attitude to others helps to maintain a good relationship with others and gives a positive respond from the receiver (William, 2005).

Social support relates to tangible outcomes such as the actual and potential resources individuals obtain from knowing others, being part of a social network with them or merely from being known to them and having a good reputation (Baron & Markman, 2000; Mair & Noboa, 2003). It was believed that the social support theory pays attention to three interrelated classes of variables like personal characteristics, interpersonal relationships and the factors that generate supportive efforts. These variables can be considered as context of social support since the influence of social support rely on the interaction of the above three dimensions (Sarason et al., 1992; Rasheed, Sawal, Taj, & Najam, 2005).

Social support contains a multidimensional collection of material, emotional, or informational resources. These resources are provided through social connections with family, friends, groups, or professionals (Harris, 2006). Gottlieb (2000) cited in Mattson's Health as Communication Nexus (2011) defined social support more broadly as the process of interaction which can enhance coping, respect, belonging, and capability through actual or perceived exchanges of physical or psychosocial resources". Referring to this explanation the main components of social support are:

- Interaction
- Coping
- Esteem
- Belonging
- Competence
- Exchange

Sarafino (1994) cited in Mustikawati dan Bachtiar (2008) classified a social support in 5 dimensions as follows:

#### 1) Emotional support

This support involves the expression of empathy and concern for individual, so the individual feel comfortable, feel loved and cared. Closed network of contacts around the entrepreneur, in which the contacts know each other, generate trust within the network. Trust between actors will escalate the likelihood that the entrepreneur may acquire sensitive information and emotional support (Klyver & Schøtt, 2011).

#### 2) Esteem Support

This refers to a positive assessment on the individual, encouragement and approved statement on individual opinion. This support will help the valuable feeling for those who consider themselves to have different abilities with others, so that it can improve self-confidence and self-esteem to the individuals.

#### 3) Tangible or instrumental support

It refers to cash transfer such as money or other material.

#### 4) Informational support

A support that includes the provision of advice, guidance, suggestions or feedback on how to solve the problem. Such support can help the individual to recognize and address a problem easily.

#### 5) Network support

This support leads to a sense of belonging to the individual because the individual has become a member in a group. In this case, the individual can share interests and social activities, so that the individual feels himself to be accepted by the group.

Emotional support is the most important social support, including sympathy, concern, love and trust. Especially, it can be realized by an operational definition such as providing self-respect, friendship, trust, concern, and hearing (Wei & Wang, 2009). Based on House cited in Wei and Wang (2009) there are four items that can be used to measure emotional support such as (i) concerning about the happiness and healthy in new venture creation, (ii) help individuals when he/she is in trouble in new venture creation and makes him/her feel better, (iii) make individuals relax when he/she feel exhausted in new venture creation, and (iv) make individuals feel comfort when he/she frustrated in new venture creation.

Social relationships are potential to offer useful resources which include emotional resources. These may take the form of emotional expression which may sustain an individual in the short or long term; instrumental emotional support which may help an individual to master their emotional burdens; coherence support which may be overt or covert information, resulting in confidence in the individual's preparation for a life event or transition; validation which may result in an individual feeling someone believes in them; an inclusion which

may result in a sense a belonging.

Family support, or lack of it, is of essential importance in the decision-making process for the women entrepreneur and depending on the reaction from the family, the women entrepreneur can either be highly motivated in her new business or completely demotivated. The discouragement from the home, coupled with opposition from society at large creates emotional and physical barriers (Bulsara & Pandurengan, 2007). Higher level of support includes a positive evaluation on oneself, motivation and acceptance expression on one's opinion. This support will assist to give meaningful feelings for others that sees themselves to possess different characteristic to other, therefore it can give birth to self-confidence and self-admiration for others (Sarafino,1994; Mustikawati & Bachtiar, 2008).

High level of support is an aspect of social support that is given to others with the aim of promoting good feeling for others (Holmstrom & Burleson, 2011). Self-esteem shows individual a complete emotion of one's value and self-independence. Esteem support is described as the honor giving to others by oneself. Esteem support is manifested in self-confidence or self-motivation. Others providing esteem support can identify one strength that is neglected or making one have confidence in one's ability.

Esteem support is the evaluation giving to others, explaining the approval and disapproval of the attitude to others. Self-esteem is the continuous process, resulting to a systematic development that is affected by new circumstances and happenings. Positive experience results to a giving amount of evaluations on one's self-esteem while a failure result to a gradual fall in one's self-esteem (Harris, 2006).

Support from faculty/college is very important for the development of student entrepreneurship. Lack of supports from the faculty could be one of an obstacle to the development of student entrepreneurship. One study found that, from 51 students surveyed, a total of 26 students were declared to be sufficient support from the faculty, the support of the faculty may be providing seminars, training, and mentoring entrepreneurs for free. The free entrepreneurial mentoring can also be assistance from building a business during the start-up to maturity. Some programs have also been carried out such as assisting prospective entrepreneurs through business incubator programs (Amalia, 2012).

In supporting people in entrepreneurship, the role of parents is not merely forming their personality to become a successful entrepreneur. The provision of capital is also one of the parents' roles to improve their motivation for entrepreneurship. The role of parents to support can be financial capital (finance), a tool and a place for entrepreneurship and investment. In addition to encouraging children to entrepreneurship, parents can also help with the form of infrastructure or business space. Capital in the form of money or place of business should not be too much and enforced. Despite, providing a small capital can be a form of support for their children to become entrepreneurs (Sari, 2012).

As mentioned by Susanti (2012) the instrumental support is a support in term of tangible assistance or actions provided by social familiarity. The direct social support such as the provision of equipment, jobs and finances. Social support is very much needed by the prospective entrepreneur. They need the support to start a business such as capital, loan, and so on. Information support is communication that provides useful or needed information. When facing any challenging circumstances, particularly in developing a business, usually information is necessary for making decision. Not knowing the details of what one is facing or about the different options available can be a source of upset and stress (Mattson's Health as Communication Nexus, 2011). *Informational support* is the provision of advice, guidance, suggestions, or useful information to someone. An individual who desires to start a venture usually needs more information relating to what kind of business could be generated nowadays and whether there are any competitors if he/she runs this business, etc.

Network support relates to the relationship that exists with other people, confirming their individual possession of socializing with other through the availability of social network. In other words, network support is communication that reminds people that they are not alone in whatever situation they are facing. Members of the network may offer many kinds of support but the concept of network support emphasizes that a network is available for providing social support (Mattson's Health as Communication Nexus, 2011).

Peer group is an initial realm of social interaction which include individual's decision to initiate a business due to the influence of his or her peers. Peers who are already running their own venture always try to provide him a comfort environment in his or her business startup (Bönte, Falck, & Heblich, 2009). Peer pressure with regard to business leads toward other social influence like media, social networks and social organizations; therefore, it is easier for the one to take initiative for business.

One study found that by having an entrepreneurial peer group support, will generate positive effect on one's

entrepreneurial desires (Falck, Heblich, & Luedemann, 2009). In the presence of contextual effects, a student spending time at a peer's home with entrepreneurial parents is going to be more exposed to entrepreneurship as a career option than those who do not. Manski (1995) cited in Falck (2009) raises the possibility or spurious estimates of peer-group effects that may be erroneously interpreted as true endogenous or contextual effects: the so-called correlated effects. These can arise when youths in the same reference group express the same occupational intentions because they share a common set of overlooked characteristics.

Family plays a pivotal role in the business establishment process and therefore their role deserves greater contribution in the entrepreneurship. The kinship relationships provide the strongest connections in entrepreneurial networks. The family offers a range of resources in both professional and nonprofessional manner which is efficacious in nature. In the case of entrepreneur, network may be derived from membership of trade associations, business networks or indeed friendship with business people, which help the entrepreneur in providing the access to information (Leek & Mason, 2003) (Zafar, 2012). One study found that affective family-to-business enrichment (the transfer of positive affect, e.g., positive mood or happiness, from the family domain to the work domain), instrumental family-to-business enrichment (the transfer of skills and behaviors acquired or nurtured in the family domain to the work domain) and family-to-business support (interpersonal support from family members) were positively related to entrepreneurial success and satisfaction for female business owners but not male business owners (Murphy, 2013). In addition, Murphy stated that Family-to-business support was more positively related to women's business performance, growth in employment, satisfaction with employee relationships, and satisfaction with a status than for male entrepreneurs. Affective family-to-business enrichment was more positively related to women's business performance, satisfaction with employee relationships, and satisfaction with a status than for male entrepreneurs. Instrumental family-to-business enrichment was more positively related to women's satisfaction with a status than for male entrepreneurs. Therefore, female entrepreneurs may benefit more from family-to-business enrichment and support than men because of their relative lack of access to other resources like social and financial capital. In addition, women's inclination to integrate work and family and to emphasize the interconnectedness and relationships may give them an advantage in capitalizing on sources of family-to-business enrichment and support.

#### 3. Problem Formulation

There are many researchers contributed to the field of social support system's role in grooming a young graduate who was studying in universities ad business school to become entrepreneurs. However, these findings are topic specific not integrating varied models proposed by various authors in entrepreneurship. Many aspects like family, peer group, educational institutions, etc. have keen role in acting as a factor of social support system. It has been pointed out by Susanti (2012) that someone who dares to choose entrepreneurship as a career is a person who feels being trusted by people, feel comfortable, able to deal with any risks. Such behavior can grow and thrive in the person who receives social support. The encouragement such as strong motivation to move from the family is the initial capital to become an entrepreneur. With the support of the families, they can have a stronger mentality and high motivation as the main driving factor (Kasmir, 2006). Widiastuti (2005) cited in Mindo & Retnanignsih (2008) also stated that the success of a person is supported by family atmosphere which includes the interaction of the person with his parents and brothers. In the family members, there is a process of interaction to each other to meet their individual goals and strive to meet the satisfaction of the social life in the family. It is obvious that someone who dares to choose entrepreneurship as a career is a person who feels being trusted by people, feel comfortable, able to deal with any risks. Such behavior can grow and thrive in the person who receive social support (Susanti, 2012).

However, in Indonesia, there is a thought that many parents expect their children become civil servants then their life would be better than to be entrepreneurs (Mustikawati & Bachtiar, 2008). This assumption might be true that the attribute of an employee can raise the social status and the human personality to a certain extent, but the economic growth and development of Indonesia could not enhance or step higher if the number of entrepreneurs remains low. In addition to that, the interest in entrepreneurship will grow and thrive in a person who live and grow up in the environment of the entrepreneur's family. In fact, most of the family environment is not conducive to the formation of a person's interest in entrepreneurship. It is caused by many aspects such as; lack of knowledge of parents, the family mindset of being civil servants or employees is safer than being an entrepreneur, there is no model as entrepreneur in the family, etc. (Aprilianty, 2012). The achievement of students on their choosing career is not only the main support of the appearance for them, but the kind of education institution where they attended is more important. The duty of parents and the duty of professional school counselors most move side by side in the training of young adolescents. Schools lay down rules and regulation have and underlining regime to help students

be equipped educationally and making decision for their career with the aim of supplying adequate resources and materials through a progressive and the comprehensive approach (Turner & Lapan, 2002). Entrepreneurship is not appreciated as like an important and prestigious profession. There are quite a lot of examples of successful entrepreneurs in Indonesia. However, awards and high attention to someone who is pioneering the entrepreneurship efforts would not so encouraging. In the family environment, for instance, there are not many parents who introduce, encourage, and provide entrepreneurship training to their young ones. There are still so many parents who boast of seeing their son become employees of the private or public sector rather than being an entrepreneur which has unpredictable income (Hartanto, 2011; Mulyana, 2013), People who have a strong family support will be ready to face the capabilities and resources needed in entrepreneurship (Astuti, 2009). They will be more stable if they pursue a career as an entrepreneur. The results of a study in Spain involving 601 college students stated that there is a significant positive relationship between family, work context, entrepreneurship education, social support and the intense entrepreneurial individualism. The study results also indicated that the lack of entrepreneurship students due to the stimulation of entrepreneurial activities to create new business given by the university is still very low. Respondents also stated that her relatives (parents, siblings, spouse) who has a background in entrepreneurship more generally encourage them to pursue careers as entrepreneurs. Their friends or their lecturer otherwise does not encourage them to entrepreneurship (Astuti, 2009). Furthermore, most of the students lack confidence to broaden their insight on the field of entrepreneurship (Amalia, 2012).

All these researchers have pointed out the importance of social support system in grooming students to become young entrepreneurs. However, there are less number of studies have been conducted in Indonesian scenario to identify which are the variables that are closely knit with the social support theme in its contribution toward entrepreneurship among young graduates. Hence, contemporarily a student needs to be conducted by examining various models, theories, and recent review of literature, contextualizing the topic into Indonesian business school.

#### 3.1 Problem Statement

Entrepreneurship is a profession carrying several elements of leadership, business knowledge, orientation etc., in addition to the support he/she obtain from the society. Even when individual's having the several entrepreneurial behavioral traits, many external factors influence entrepreneurial efforts, personality, attitude and to become and entrepreneur. These factors includes 'family support and peer support' specifically and which have the considerable influence of determining entrepreneurial success, noted by past researchers. It has been clearly incorporated in the literature that the family support can act as a moderating factor among entrepreneurs in the journey towards accepting entrepreneurship as a profession. Contextualizing the topic to Indonesian scenario where the young generation is more molding toward 'employee ship' rather 'entrepreneurship', how far the 'support system' influences their choice of profession need to be understood. Hence, this particular study identifies the topic of research as "variable analysis and model confirmation using the Delphi technique.

#### 4. Research Methodology

This particular study followed Delphi technique as it design of method to explore categories and factors related to social support issues in various universities. As it is known, the Delphi technique is one of the methods, which started its usage in 1950, in order to get consensuses, which is linked to real world knowledge coming through experiences on the area related to research topics. It is pointed out by Dalkey (1972) that the consensus on decisions which is coming from heads is better than one, or... n heads are better than one. This Delphi technique is as consider one of the effective communication process with the objective of making deep analysis base on deliberation on a specific problem in order to set the goal, undertake a probe into the policy or to make effective prediction on the occurrence of future events (Kumar, 2013). Basically the Delphi technique is conducted in the form of semi-structure interaction and interview. High concentration on the process is envisaged to ensure the rigorous.

During the middle of march to the middle of November 2013 Delphi process organized among the resources people carefully selected based on the expertise knit with social support, followed by interviews.

Telephonic interview is utilized to collect information from the respondents. 40 professionals or expert from the industry and academia were recognized and approached by email or telephone and were invited to participate in the study. All the clarifications related to the objective of the study were made by the researcher. However, From 26 respondents were being interacted and communicated, only 20 respondents shown their enthusiasm to take a part in the discussion. Finally, the 20 participants were interviewed by telephone and through email. The conversations have been taped and recorded and manually analyzed. The procedural steps in adopting the Delphi technique were as follows.

#### 4.1 Expert Panel Identification

The group of professional was made from experts having high knowledge and expertise in social network and entrepreneurship. They are closely associated with industries like consultants, Owners of industries, Top level managers, Entrepreneurs, Professors, Researchers as well as Academicians. Based on the area of expertise, the expert members include 12 male members (60%) and 8 female members (40%). These dynamic groups of panel of experts are knowledgeable and familiar to give relevant opinions and an admissible understanding of the concept of social suppot.

#### 4.2 Rounds

#### 4.2.1 Round 1

In the initial round, the Delphi process essentially begins with an open-ended questionnaire. The open-ended questionnaire serves as the foundation of soliciting specific information about a contented area from the Delphi subjects (Custer, Scarcella, & Stewart, 1999).

#### The questions:

- 1. How do you define social support?
- 2. How do you relate the social support with entrepreneurial learning and development?
- 3. Which are the main aspects, in general closely related to Social support?
- 4. Contextualizing the topic to the Indonesian scenario, which are the major factors, closely related to social support in Indonesia?

#### 4.2.2 Round 2

The second round concentrate into categories and the items which are more closed to the concept social support. Followed by the procedure the Delphi members received the second questionnaire and accordingly they were required to rate or rank order the items in order to establish first level preferences among item incorporated into. In this stage, based on the decision and deliberation, agreement and disagreement on the items consider in relation to social support were make. Care should be taken that, the number on Delphi iteration should be based on how far consensuses have been arrived at effectively on the concept social support in the study. The process identifies 82 categories, which are having items with high and low proximity of entrepreneurial orientation identified. Rating process further identified in the categories and items identified.

#### 4.2.3 Round 3

In this round, each Delphi panelist receives a number of questionnaires that include the categories and items ratings, summarized by the investigators in the previous cycle and are asked to revise his/her judgments or "to delineate the reasons for staying outside the consensus" (Pfeiffer, 1968). This round gives Delphi panelists a chance to make further explanations of both the information and their decisions about the relative importance of the categories and items. Second level screening of the 82 categories which were having a high and low influence on business incubation centers identified with corresponding items. The process further identified 38 categories, which are having high and low proximity of the social support identified. Classification of the items in 38 categories of 2 factors was being made with appropriate loaded items. Thematic presentation and the categorization of the items were done.

#### 4.2.4 Round 4

This round is the last round in which the researchers tried to eliminate the minority opinion in order to capture the maximum level of consensus based on their rating on the categories and items which related to social support. Crosschecking of this categories and items were thoroughly make and the suitability clearly ascertained for fixing up the categories and items related the factor social support. During fourth level, screening of the 25 categories of 2 factors which were having items with high and moderately high proximity of social support identified. Sought the expert opinion on the appropriateness of the core factors selected for the study.

The first factor that linked to Social support is the Family Support. The experts identified 39 items under 13 categories in relation to social support. The major categories identified by the experts are the Encouragement from family members (90%), providing financial assistance (90%), assisting startups (90%) and sharing problems (90%). The expert further observed Support with useful information (85%), Support with right advices (85%), sharing responsibility (85%), and providing self-confidence (85%) Support in networking (85%) and Identifying space and location (85%). Though much difference in the scoring is further observed, the experts have given minor scoring three categories like Support in decision making (80%) and Emotional Support (80%)

and Coordinating activities (80%) which are closely knit with social support.

Table 1. Delphi application

No	Factors	Categories	No. items	of	No. Experts (N=20)	of	% Experts	of
1	Family Support	Support with useful information	4		17		85	
		Support with right advices	3		17		85	
		Support in decision making	4		16		80	
		Encouragement from family member	3		18		90	
		Sharing responsibility	3		17		85	
		Emotional Support	2		16		80	
		Providing self-confidence	2		17		85	
		Providing financial assistance	3		18		90	
		Assisting start ups	3		18		90	
		Sharing problem	3		18		90	
		Support in networking	4		17		85	
		Identifying space and location	2		17		85	
		Coordinating activities	3		16		80	
2	Peer Group support	Motivation from friends	3		17		85	
		Making provision of adequate information	3		17		85	
		Providing right suggestions	3		17		85	
		Facilitate better decision making	3		18		90	
		Sharing responsibility	3		17		85	
		Providing psychological support	2		16		80	
		Inducing self-confidence	2		16		80	
		Sharing business problem	3		17		85	
		Supporting start-up	3		17		85	
		Networking support	3		17		85	
		Identifying good location	2		16		80	
		Supporting coordination	3		16		80	

The last factor considered for the study is the Peer Group Support. The result shows that the professionals identified 33 items which come under 12 categories social support factor. The table showed that Facilitating better decision making (90%) as the prominent factor which closely knit with social support for the students. The experts also identified Motivation from friends (85%), Making provision of adequate information (85%), Providing right suggestion (85%), and Sharing responsibility (85%), Sharing business problem (85%), supporting startup (85%) and Networking support (85%) as the second prominent factors in relation to social support among students. Moreover the result also shows the importance of categories like Providing psychological support (80%), Inducing self-confidence (80%), Identifying good location (80%) and supporting coordination (80%) that are knit with social support for the students.

#### 5. Discussion

This particular study on understanding family seldom supports factor and fixing those variables for further studies has identified two major factors which include the family support and the peer support that would facilitate the students to become an entrepreneur. In the review of the literature and problem formulation part, it has been clearly cited that the Indonesian family seldom supports their youngsters to become entrepreneurs. Mustikawati and Bachtiar (2008) rightly point out in this context that in Indonesia there is a thought that many

parents expect their children to become a civil servant and their life would be better than to be entrepreneurs. With due consideration to this quotation, it is very important to assess various moderating factors that influence student entrepreneurial orientation and their intention to take up entrepreneurship as their profession.

The first factor identified by the expert in this particular research was the family support. It is pointed out by Kashmir (2006) that with the support of families, the student can have a stronger mentality and high motivation as the main driving factor. Further, substantiating this argument, Widiastuti (2005) also stated that the success of a person who is supported by family atmosphere which includes the interaction with his parents and brothers that support them to become entrepreneurs. Under the family support, the expert were identified many factors like encouragement from family members, providing support with useful information, making provision of right advices, giving support in decision making, sharing the responsibility of new ventures, inducing emotional support, inducing self-confidence, providing financial assistance, assisting start up, sharing entrepreneurial problem, providing support and networking, identifying appropriate space for starting the business and coordination of activities. In all these factors, family role is very important. It is expected that the family members should provide adequate psychological, financial, social, and allied support facilities for the youngsters to become entrepreneurs. Any forms of discouragement the youngsters feel from the institution of family develop there by demotivation, lack of self-confidence and disappointment among youngsters. So, in this context the categories pointed out by the expert are very important in measuring young students' desire on intention to become an entrepreneur.

The second factor identified by the experts in this research includes, the support, the young students receive from their peer groups. Just as, the support a student expect from the family members, they also expect appropriate support from their peer groups. The students should get appropriate motivation in taking the right decision, related to starting up a business with effective support and coordination. Under peer group support, the experts have identified many categories like motivation from friends, making provision of adequate information, providing right suggestion, getting support in right decision-making, sharing all responsibilities related to new venture ship, providing adequate psychological support, inducing self-confidence, sharing the new business problems, support in starting up new business, providing effective networking support, identifying the right location to start the business, and provide support in effective coordination and activities, are all very important in grooming students toward entrepreneurial motivation. The motivation and self-confidence the students derived from the same age group people will sustain their vision to become an entrepreneur.

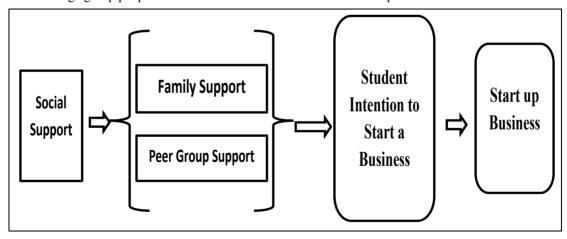


Figure 1. Model: Factors related to social support

Hence, the social support is a factor which may have a moderating effect of entrepreneurial orientation and the student's intention to become entrepreneurs. The social support is viewed as one of the basic blocks of social, psychological and biological integrity. These social supports act as formal and informal support factors which is considered as center components of individual social capital that contribute to their vision to become entrepreneur. It acts as a perception and actuality that one is totally taken care of by their family and their peer groups by extending appropriate assistance to realize their goal to become an entrepreneur. It has been rightly pointed out by Lion (2007) that social support act as potential entrepreneur belief and expectation about the support he or she will receive from the group to which he or she belongs which include the parent, siblings and spouse and from other reference group like the friends, the colleagues and the teachers in the case of setting up a

business or going self-employment. Hence, the factors identified by the expert need to be further analyzed with the support of extensive research.

#### 6. Implication

The objective of this particular research was to identify and fix variables related to the social support factors which influence a student decision to become an entrepreneur. This research identified two factors (family and peer support) and 25 Categories to explore the relationship between student entrepreneurial intention and social support system. In order to identify the social support factors, this particular study followed many models like Sarafino (1994), House and Khan (1985), House (1981), Gottlieb (2000), Mattson (2011), etc. These models have segregated the social support factors into many sub factors like emotional support, esteem support, instrumental support, informational support, material support, etc. While the experts have the opinion that these factors can be clubbed together into two major factors like family support and peer support. These are the major institution which influences with their supporting facility to the youngster in making their goal towards entrepreneurship. These two institutions having far reaching influence and develop social collaborated psychological, economical, infrastructural and spiritual implications further to their decision to become a young entrepreneur or start up a new business venture. Hence, by incorporating factors like the family and peer group support with the major theme social support, further study to be conducted with quantitative research to prove these variables acceptance as major factors moderating entrepreneurial orientation and intention.

#### 7. Conclusion

Several theories models and recent findings are available to understand the social support factors in relation to students' intention to become an entrepreneur. Contextualizing the topic to Indonesian student scenario, how far these theories and models that rooted from the west is adoptable that need to be further explored. Keeping in mind the objective of customizing the variables to the Indonesian context, all the theories and models of social support factors are thoroughly evaluated into and finally segregated into two major factors like family support and peer support. This segregation of factors further helps the researchers to identify the categories related to each factor and well envision that these factors to be further exposed to extensive research with the support of quantitative research. It is also directed by the researchers that these factors should be subjected to factor analysis to ascertain the validity and reliability on the factors loaded and the items incorporated. A mixed method of qualitative and quantitative method may thereby provide a better predicting variable toward entrepreneurial intention among young graduates of Indonesia.

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## Awareness and Willingness for Engagement of Youth on World Heritage Site: A Study on Lenggong Archaeological Site

Mastura Jaafar<sup>1</sup>, Shuhaida Md Noor<sup>2</sup> & S. Mostafa Rasoolimanesh<sup>1</sup>

Correspondence: S. Mostafa Rasoolimanesh, School of Housing, Building, and Planning, Universiti Sains Malaysia, Penang, Malaysia. Tel: 60-4-653-5278. E-mail: mostafa@usm.my

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#### **Abstract**

Lenggong Valley was recognised as a World Heritage Site in June 2012. The literature highlights the importance of community engagement in conservation programmes. Principally, the involvement of young people is necessary to facilitate heritage management programmes. The readiness of youth to engage can be measured from their awareness and willingness to participate. For this study, we administered questionnaire surveys to 175 respondents from three secondary schools in Lenggong. The results revealed a low level of awareness and a lack of willingness for participation. In addition, the findings suggest an uncertain correlation between awareness and willingness for participation among youth.

**Keywords:** awareness, community engagement, Lenggong valley, World Heritage Site (WHS), youth, willingness

#### 1. Introduction

Heritage is frequently defined as our inheritance from the past, what endures into the present, and what continues into the future; allowing generations to gain knowledge, wonder at and benefit from (UNESCO, 1998, 2002). World Heritage Sites (WHS) might be forests, mountains, lakes, deserts, monuments, buildings, or cities and which are listed by UNESCO for their cultural or physical significance. UNESCO recognises four WHS's in Malaysia: Gunung Mulu National Park in Sarawak (2000), Kinabalu Park in Sabah (2000), George Town and Melaka (2008), and the Archaeological Heritage of the Lenggong Valley (2012) (Department of Museum Malaysia, 2012).

Lenggong Valley is a small town situated in the north of Perak, Malaysia. Lenggong Valley is recognised as an archaeological site with evidence of human settlement since the Paleolithic era. Lenggong was recognised as a WHS by UNESCO on 30 June 2012 due to its rich archaeological heritage. Other unique elements which contribute to Lenggong Valley being recognised by UNESCO as a WHS include the presence of an undisturbed Palaeolithic stone tool workshop, the discovery of the australomelanesoid 'Perak Man' in 1991, and a number of caves showing evidence of prehistoric burials.

For the purposes of this study, the community is defined as the residents dwelling within the WHS and who have a significant role to play in maintaining the WHS. Such communities must ensure that Lenggong Valley becomes and continues to be a well-known and popular heritage tourism destination. While the recognition of Lenggong as a WHS contributes significant worth to the local community, maintaining the UNESCO status is dependent aware the local community is of the WHS status and their willingness to engage with the WHS itself. Thus the value of community engagement has been enshrined within The Charter for the Conservation of Historic Towns and Urban Areas 1987 (Washington Charter) which states, "The participation and the involvement of the residents are essential for the success of the conservation program and should be encouraged. The conservation of historic towns and urban areas concerns their residents first of all" (ICOMOS 1987, Article 3). This point is further reinforced by The Burra Charter, which stresses that heritage conservation is sustained by community engagement (ICOMOS, 1999, Article 12).

Community engagement in heritage management can settle conflicts between the needs and interests of residents for a better quality of life, economic development and the conservation of the WHS (Sirisrisak, 2009).

<sup>&</sup>lt;sup>1</sup> School of Housing, Building, and Planning, Universiti Sains Malaysia, Penang, Malaysia

<sup>&</sup>lt;sup>2</sup> School of Communication, Universiti Sains Malaysia, Penang, Malaysia

Community involvement contributes to increased standards of living, with the community benefiting from tourism development secondary to the UNESCO recognition of the WHS. However, such community engagement would be impossible in the absence of the local communities' awareness concerning the values of the Lenggong WHS. Thus the younger generation is seen as playing a crucial role in heritage conservation as they will be the main beneficiaries of any successful conservation management programmes, enabling them to enter the local economic sector and engage in local industry.

UNESCO defines youth "as persons between the ages of 15 and 24 years old" (UNESCO, 2013). According to Edwards, Johnson, and McGillicuddy (2003), the quality of young people's engagement of is a function of their awareness, knowledge and skills. Therefore, to facilitate the effective participation of young people, some consideration should be given to increasing their level of awareness and knowledge and capacity-building (Otis, 2006; Suleiman, Soleimanpour, & London, 2006). In order to engage young people in a WHS community with the site, young people require an awareness of the value of the WHS. Increasing youth awareness of the value of the WHS enables them to evaluate the value of its, and conversely there, heritage and actions needed to manage the WHS. WHS awareness facilitates the gaining of knowledge, familiarising youth with WHS conservation and encouraging them to participate in the WHS conservation process (UNESCO, 1998, 2002). Therefore, engendering awareness of young people is a prerequisite of effective participation and engagement in conservation of WHS.

However, it seems that local communities within the Lenggong Valley are generally unaware of the fact that their home has been recognised as a WHS. Preliminary observations indicate that local inhabitants are unaware of the WHS concept and have no idea how they might benefit from the WHS. Despite the historical background of Lenggong Valley and its wealth of archaeological findings, this lack of knowledge among the local community presents a barrier for disseminating information and for engaging residents and youth in conservation programmes.

Thus the aim of this study is to:

- 1) Evaluate the awareness of young people regarding the Lenggong WHS;
- 2) Assess young people's willingness to engage in future heritage conservation activities; and
- 3) Identify the correlation between young people's awareness and willingness to engage.

This study has been conducted using students drawn from several secondary schools in Lenggong Valley, and various descriptive analyses and correlation techniques have been employed to analyse the data which has been collected. The final results will be an important measure in gauging the awareness and willingness of local youth to participate in new developments taking place in the Lenggong Valley.

#### 2. Literature Review

#### 2.1 Lenggong Valley as a World Heritage Site

Lenggong Valley is rich with many unique elements that enable it to be recognised as a WHS. Lenggong Valley, which covers 9,773 hectares, has its own unique physical attributes, socio-culture, daily activities, and many other unique elements. Understanding world heritage makes people more aware of their roots, their cultural and social identity, their beliefs, and the values of peoples and civilisations (UNESCO, 1998, 2002).

Lenggong Valley has many historical heritage elements that can be used to increase its destination competitiveness. These treasures represent the grandeur of the Lenggong civilisation which had developed in the past (Manaf, Bakar, Yakoob, & Hassan, 2009). Historical remains can be classified as a cultural heritage of many types including written history, buildings, monuments, sites, artifacts, places, and human culture. As valuable properties representative of a race and a culture, historical heritage should be shared, preserved and maintained and should not be affected by modern development and human greed, disasters or the uncertainty of natural phenomena (Hassan, Manaf, Bakar, & Yakoob, 2010). Lenggong Valley shows signs of having hosted one of the oldest civilisation areas since the Palaeolithic era, some 1.83 million years ago. Archaeological evidence indicates that there was a decline in the initial population due to both a meteorite impact and the super volcanic eruption of Toba 74,000 years ago.

In addition, Lenggong Valley hosts a rich diversity of flora and fauna which forms part of its rain forest equatorial ecosystem. It has rivers and waterfalls, like the Perak River, which is 420 km long, making it the second longest river in Peninsular Malaysia. A large section of the river in Lenggong continues to support rural living, far and away from modern development. Also, Raban Lake, located 16km to the north of Lenggong, is considered a major fishing spot in Perak due to its assortment of freshwater fish.

Lenggong Valley is also abundant with limestone caves. There are approximately 75 caves in Lenggong Valley. Among them, 16 caves have been explored, 7 of which were formed approximately 330 million years ago. Some caves have been identified as the early settlements of prehistoric peoples and were included as part of the UNESCO world heritage submission. Among the more famous caves are Gunung Runtuh Cave, Teluk Kelawar Cave, Harimau Cave, Badak Cave and Kajang Cave. There are also suevite rock desposit sites which formed in the Bukit Bunuh in the meteorite impact crater. Desposits of the gathered dust caused by the Toba super volcanic eruption in Sumatera, Indonesia 74,000 years ago can also be found in Lenggong. These unique features make Lenggong an attractive location and contribute significantly to its destination competitiveness.

#### 2.2 Community Engagement and Awareness

According to the Global Strategy, launched by the UNESCO World Heritage Committee, in declaring a site as a WHS it not only recognises the value of the site, but also stroves to protect the site (UNESCO, 1994). To this end, communities interacting with the site should strive to live in harmony with the site's assets and this requires both knowledge and a sense of belonging to the site. Communities should be knowledgeable with respects to the site's historical background and this, in turn, enhances their appreciation of the site itself. However, community engagement is vital in this process of instilling a sense of pride regarding the site and its associated community. Community participation in heritage projects positively influences the sense of belonging among residents, assists people in developing social networks with others both within and outside their community, and instils an appreciation of the heritage assets of the local area (Yung & Chan, 2013).

Community engagement can be defined as a collaborative relationship between communities in which they strive to achieve a specific objective while simultaneously making their community a better place in which to live (McCloskey et al., 2011). As such, community engagement emphasises the connections and interactions between community members. Community participation can create a sense of ownership, trust and credibility among community members (Rasoolimanesh, Badarulzaman, & Jaafar, 2013).

Youth participation in WHS conservation bears similar benefits to adult participation (or public participation in general). In Lenggong Valley, the benefit of youth participation may be more significant as youth have more opportunities to be involved in sustaining future developments. Young people welcome the opportunity to have a voice in public arena and be more linked to their community (Frank, 2006). Across diverse fields such as health programmes, environmental protection, educational affairs, urban planning, and social services; youth participation has shown itself to be a powerful tool enhancing young people's sense of self-esteem, skill development, and connection to the community (Suleiman et al., 2006).

Checkoway & Gutierrez (2006) define youth involvement as the process of engaging young people in activities which impact their lives (e.g. environmental issues, educational reform, justice equity). The youth participation literature indicates that the quality of participation of young people is depending on their awareness, knowledge and skills (Edward et al., 2003). Therefore, to facilitate the effective participation of young people, their awareness, knowledge and capacity should be improved (Otis, 2006, Suleiman et al., 2006).

Youth participation in WHS conservation programmes has some additional needs, such as developing an awareness of the value of the WHS, as well as developing the skills, competence, and confidence necessary for such participation to be effective. Awareness of the WHS empowers youth to reflect upon and argue the value of their heritage, the methods required to manage the WHS, and the opportunities and threats to tourism presented by the WHS. WHS awareness facilitates gaining knowledge, familiarising youth with WHS conservation and encouraging them to participate in the WHS conservation process (UNESCO, 1998, 2002). Therefore, developing an awareness of WHS heritage among young people is a prerequisite of effective participation in WHS conservation. Awareness activities which encourage young people to participate in WHS management programmes should incorporate youth friendly techniques and activities such as drawing, mapping, video recording, and the performance arts (Frank, 2006).

#### 3. Research Methodology

For the purpose of this study, we aim to assess the level of awareness of young people regarding the Lenggong WHS, as well as their willingness to engage with heritage management programmes. In addition, we intend to investigate the correlation between awareness and willingness for engagement. Our sample population comprised of students drawn from all secondary schools, there being only three, in Lenggong Valley. A developed questionnaire was administered to respondents in order to collect data. This questionnaire contains of three main sections; the first section identifies the demographic characteristics of the respondent, the second section ascertains the level of awareness of respondents about the Lenggong WHS, while the third section explores the willingness of the young person to participate in WHS conservation and management programmes.

Questions in the second and third sections of the questionnaire were presented as simple Yes=1 and No=2 answers. A total of 175 questionnaires were administered to and returned by the respondents. And the resultant data analysed in SPSS using various descriptive and correlation techniques. The next section presents the results and findings of the data analysis in detail.

Table 1. Profile of respondents

Description	Frequency	Percentage (%)	
1) Gender			
Male	63	36.0	
Female	112	64.0	
2) Ethnicity			
Malay	159	90.9	
Chinese	14	8.0	
Indian	2	1.1	
3) Age			
16	120	68.0	
17	55	32.0	
4) Secondary Schools			
Tan Sri Abdul Aziz	51	29.1	
Sultan Azlan Shah	99	56.6	
Dato Ahmad	25	14.3	

#### 4. Analysis and Findings

This study has been conducted with 175 respondents from three secondary schools in Lenggong WHS. Table 1 shows the profile of respondents. In terms of the gender of respondents, 63 of the respondents were male (i.e. 36%) and 112 female (i.e. 64%). Respondents represent three different races, indicative of the racial diversity of Malaysia, 90.9% being Malay, 8.0% Chinese and 1.1% Indian. In terms of the age of respondents, 120 respondents aged 16 years and 55 students aged 17 years at the time of the study. Of the three secondary schools in Lenggong, 29.1% of respondents came from Tan Sri Abdul Aziz Secondary School, 56.6% from Sultan Azlan Shah Secondary School, and 14.3% from Dato Ahmad Secondary School.

Data analysis revealed that young people's overall level of awareness of the Lenggong WHS was poor (See Table 2). While most (i.e. 89.7%) respondents were aware of the Lenggong WHS, many did not know what a WHS was. The mean value of being able to accurately identify the meaning of WHS (Q: 5.1a-5.1d) ranged between 1.61 to 1.94. Sub-questions to question 6 (i.e. 6.1a-6.1d and 6.2a-6.2d) assess respondents awareness of the Lenggong WHS and its potential benefit to local residents. Most of respondents (mean = 1.43) knew about the discovery of "Perak Man" and believed it to be the main reason for UNESCO having recognised Lenggong as a WHS. Responses to other questions in section 6.1 demonstrated that the young residents have a low level of awareness with the mean values were ranged from 1.79 to 1.93. Most respondents were aware that Lenggong's recognition as a WHS brought with it a number of benefits. Most foresee Lenggong WHS becoming a major tourist attraction and the potential sources of income inherent in living in a tourist attraction. However, on average (mean values ranges from 1.77 to 1.94), respondents were unaware other benefits which might be derived from the WHS. Asked about various archaeological and non-archaeological attractions in Lenggong, the mean level of awareness ranged between 1.53 and 1.98. Respondents were somewhat familiar with the Lenggong Archaeological Museum and Lata Kekabu waterfall; but they knew very little about Lenggong's other attractions. Aside from the archaeology museum, Bukit Bunuh and Kota Tampan host a number of archaeological artefacts and respondents seemed to be unaware of this. This lack of knowledge also extended to various non-archaeological sites in Lenggong WHS. Therefore, based on the results of this section of the questionnaire, it has been demonstrated that respondents have a low level of awareness with respects to the Lenggong WHS.

Respondents were also asked several questions about their role in Lenggong Valley after it has been recognised as WHS, the responses to which have been summarised in Table 3. This question explores the willingness of young residents to engage with activities intended to promote and preserve Lenggong as a WHS. The data

suggests that respondents are unwilling to play any significant role in the Lenggong WHS. The mean values for the answers to these questions (Questions 8.1a-8.1f) ranged from 1.62 to 1.97. Therefore, the results summarised in table 2 and table 3 demonstrate that young people in Lenggong have both a low level of awareness and low level of willingness for engagement with the Lenggong WHS.

Table 2. The results of analysis of awareness

Questions	Mean Value	St. Dev.
5) Have you heard of World Heritage Site?	1.10	0.305
5.1) If yes, what is World Heritage Site?		
a) It is an unique and important physical culture	1.61	0.870
b) Being listed by United Nations Educational, Scientific and Organization (UNESCO)	1.94	0.233
c) A place which has given name by World Heritage for its universal value to human and it need to be protected in order to admire by future generations.	1.74	0.438
d) Others	1.88	0.326
6) Do you know Lenggong Valley has been recognized as World Heritage Site?	1.17	0.378
6.1) If yes, what do you know?		
a) It has been recognized on 30 June 2012	1.91	0.281
b) It has been recognized because its historical value	1.79	0.409
c) It has been recognized because Perak Man was found.	1.43	0.496
d) Others	1.93	0.253
6.2) If yes, what is the benefit of Lenggong Valley after the recognition?		
a) It brings development to Lenggong Valley	1.77	0.421
b) It brings more job opportunities to villagers	1.94	0.243
c) It is able to attract tourists and brings more income to villagers	1.50	0.501
d) Others	1.92	0.272
7) In your opinion, what are the places of attractions in Lenggong Valley?		
a) Gunung Runtuh Cave	1.81	0.388
b) Bukit Bunuh	1.91	0.289
c) Kota Tampan	1.82	0.388
d) Lata Kekabu waterfall	1.66	0.474
e) Belum waterfall	1.96	0.182
f) Harimau Cave	1.92	0.272
g) Taman Negeri Royal Belum	1.96	0.197
h) Tasik Raban	1.86	0.345
i) Nur Lembah Lenggong	1.91	0.281
j) Puteri Cave	1.87	0.339
k) Galeri Arkeologi Lenggong/museum archaeology	1.53	0.500
l) Kajang Cave	1.93	0.253
m) Gua Tok Giring	1.98	0.182

Scale: Yes=1, No=2

A Spearman correlation test analysis was conducted due to the nature of the data collected. This test sought to determine the significance of the relationship between the responses given to questions 5.1 (i.e. awareness about the meaning of WHS), 6.1 (i.e. awareness of the reasons Lenggong was recognised as a WHS), and 6.2 (i.e. awareness of the benefits of Lenggong's WHS recognition for residents) with the responses given to question 8.1 (i.e. willingness of residents for participation). The result of the correlation analysis between awareness and willingness to participate showed a significant relationship between some items; but not others. And of those relationships which were significant, some correlations were negative while others were positive (See Table 4).

The correlation analysis produced an uncertain result for the key measures of awareness and willingness to engage. For example, there was a negative relationship between the responses given to questions 5.1c and 6.1a with those given to question 8.1b. Responses to others questions indicated either a positive correlation with low p values or a non-significant correlation. Therefore, the analysis revealed an uncertain correlation between awareness and willingness for participation among young residents.

Table 3. The results of analysis of willingness for engagement

Questions	Mean Value	St. Dev.
8) In your opinion, do you think that you have to play a role in Lenggong Valley after it has been recognized as World Heritage Site?	1.26	0.554
8.1) If yes, what is the role you think you should play?		
a) To preserve the environment	1.62	0.486
b) To preserve the archaeological sites	1.84	0.362
c) To raise the awareness of the important of preserving the environment in Lenggong Valley among villagers	1.81	0.393
d) To promote the local products to people	1.78	0.417
e) To promote home stay and archaeological gallery Lenggong Valley to people	1.92	0.263
f) Others	1.97	0.167

Scale: Yes=1, No=2

Table 4. The results of Spearman correlation between awareness and willingness

	8.1a	8.1b	8.1c	8.1d	8.1e	8.1f
5.1a	135*	.128*	.190***			155**
5.1b						
5.1c		143*			.132*	.135*
5.1d		.134*				
6.1a		154**				
6.1b				.126*		
6.1c	.174**			.131*		
6.1d	211***					
6.2a					.158**	
6.2b				.144*		
6.2c						
6.2d			143*			

<sup>\*</sup> p<0.1, \*\* p<0.05, and \*\*\* p< 0.01

## 5. Discussion and Conclusion

In this study, we aimed to evaluate young people's awareness of the Lenggong WHS, their willingness for engagement with the WHS, and the correlation between these two variables. The literature emphasises the importance of community engagement, especially the engagement of young people, in WHS conservation programmes (Frank, 2006; Yung & Chan, 2011). However, youth participation necessitates that the young person be equipped with some level of awareness concerning the value of the WHS. So armed, the young person can develop the skills, competence, and confidence necessary in order to translate their willingness to participate into an effective contribution to the various conservation programmes and activities. WHS awareness facilitates both the gaining of knowledge, familiarising youth with WHS conservation, and encourages them to participate in the WHS conservation process (UNESCO, 1998, 2002). The results of the present study indicate both a low level awareness among young people in Lenggong Valley and a low level of willingness for participate in future conservation programmes centred on the Lenggong WHS. We demonstrated that young people in Lenggong Valley have very little understanding of the WHS concept (Inc. what "world heritage site" means), foresee few

benefits to themselves or their communities in Lenggong's recognition as a WHS, and are unfamiliar with Lenggong's various attractions despite them actually living in Lenggong Valley. Consequently, most young people in Lenggong Valley are unwilling to engage in WHS conservation programmes or to play any effective role in preserving Lenggong's heritage.

Despite previous literature's assertion that awareness and willingness for participation are intrinsically linked (UNESCO, 1998, 2002; Frank, 2006), our correlation analysis demonstrated a very weak relationship between the two. Notwithstanding, the literature would also suggest that the quality of youth participation is a function of their awareness and knowledge (Edward et al., 2003). Therefore, to facilitate effective youth participation in the management of the Lenggong WHS, it is imperative that some effort be made to improve the capacity, knowledge and awareness of young people. Promoting the capacity and skills of young people will contribute to sustaining the conservation programmes of the Lenggong WHS (Otis, 2006; Suleiman et al., 2006).

The results of this study highlight the urgent need for local authorities to undertake action so as to raise the level of awareness of young people in Lenggong Valley with respects to the WHS and to encourage and prepare them for participation in sustainable conservation programmes. Awareness activities intended to encourage young people's involvement in WHS conservation programmes might involve interactive activities such as drawing, mapping, video recording, and the performance arts (Frank, 2006). These activities serve to strengthen young people and improve their capacity, skills, knowledge and awareness (Suleiman et al., 2006). However, it should be borne in mind that awareness and youth participation, as well as community engagement in the area of heritage conservation programmes, is still areas for which there is very little literature. Further research is needed to better understand these elements, various aspects of awareness, and requirements for community involvement in WHS conservation programmes. While this study was fairly limited in its scope, focusing solely on the Lenggong WHS, the findings of this study might serve a lesson for other rural WHS's, especially in developing countries.

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# Firm Performance and Entrepreneurial, Market and Technology Orientations in Korean Technology Intensive SMEs

Lee Do Hyung<sup>1</sup> & Alisher Dedahanov<sup>2</sup>

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#### Abstract

This study investigated the relationships between entrepreneurial-market orientations and entrepreneurial-technology orientations and the impact of market and technology orientations on firm performance in Korean technology intensive small and medium-sized business (SMEs). To conduct the analysis, the study applies structural equation modeling (SEM) to understand the direct effects of entrepreneurial on market and technology orientations and the direct effects of market and technology orientations on firm performance. This research is based on a study of 347 technologies intensive Korean SMEs and the major results are as follows:

The results indicate that entrepreneurial orientation directly affects market and technology orientations. This result implies that entrepreneurial orientation is key factors that influence market and technology orientation in Korean SMEs. Another finding suggests that market and technology orientations positively affect firm performance. It appears that Korean companies require the capability to serve technology well, but also need to recognize new business opportunities from within their current market relationships. The implication here is that for Korean technology intensive small firms, entrepreneurial orientation can improve market and technology orientations. The results suggest that to achieve high levels of firm performance, Korean companies need to balance the elements of entrepreneurial, technology and market orientations.

**Keywords:** entrepreneurial orientation, market orientation, technology orientation, firm performance, Korean SMEs

## 1. Introduction

A large body of academic literature has been published on the subject of strategic orientation. Research focusing on investigating a single orientation has led to a lack of more complex and multi-dimensional approaches to strategic orientation that adopt a holistic perspective (Hakala, 2010). This narrow focus has in turn led to gaps in the literature regarding how to combine various orientations and the likely effects on firm performance.

Therefore, the significance of examining the relationships among different strategic orientations has increased (Grinstein, 2008). Recent studies have suggested that research should focus on the various combinations of strategic orientations that organizations can pursue in different environments, rather than on direct effect between a single orientation and firm performance (Grinstein, 2008).

However, little research based on empirical data studying the combined use of market, technology and entrepreneurial orientations in conjunction with one another exists (Aloulou & Fayolle, 2005; Hakala, 2010; Kaya & Seyrek, 2005), and only a small number of studies have attempted to examine the link-between technology, market and entrepreneurial orientations (Aloulou and Fayolle, 2005; Kaya and Seyrek, 2005; Li, 2005; Zhou, Yim, & Tse, 2005). Aloulou and Fayolle (2005) explored the main attributes of entrepreneurial orientation and its determinants from opportunity-based and resource-based views within a small business context. However, this study was somewhat limited because of its purely conceptual nature. These works present orientations on a conceptual level only (Aloulou & Fayolle, 2005), and other studies investigate the effects of these orientations separately (Li, 2005; Zhou et al., 2005) rather than viewing the effects of combined

<sup>&</sup>lt;sup>1</sup> School of General Education, Yeungnam University, 280 Daehak-Ro, Gyeongsan, Gyeongbuk, 712-749, Republic of Korea

<sup>&</sup>lt;sup>2</sup> Business School, Yeungnam University, 280 Daehak-Ro, Gyeongsan, Gyeongbuk, 712-749, Republic of Korea Correspondence: Alisher Dedahanov, Business School, Yeungnam University, 280 Daehak-Ro, Gyeongsan, Gyeongbuk, 712-749, Republic of Korea. E-mail: sarbon22513@gmail.com

orientations.

Kaya and Seyrek (2005) investigated the various effects of entrepreneurial, technology and customer orientations on firm performance with different levels of market dynamism. Their findings suggest a strong positive relationship between entrepreneurial orientation and firm performance for firms in highly dynamic markets and a positive link between technology orientation and firm performance in less dynamic markets. This study focused on the effects of orientations under different market conditions rather than identifying the relationship between each orientation. The study by Zhou et al. (2005) conceptualized a model that connects strategic orientations (market, technology and entrepreneurial orientations) and market forces through organizational learning that leads to breakthrough innovations and firm performance. In this study, technology orientation has a positive impact on tech-based innovations and entrepreneurial orientation is positively associated with both market- and tech-base innovations. However, this study focuses on the distinct effects of different orientations and, therefore, fails to study the combined effects of multiple orientations.

Thus, we attempt to contribute to the current knowledge by filling the following research gaps. First, many studies focus on a specific orientation or on the direct effects of each respective orientation, neglecting to consider the potential they have to function as a system. Second, most of empirical examinations were undertaken in the context of advanced economies and large firms.

In this vein, the purpose of this paper is twofold. First, we investigate the relationship between entrepreneurial-market orientation and entrepreneurial-technology orientation. Second, we examine the direct effects of the entrepreneurial orientation on market and technology orientations in the context of SMEs. Next, we suggest possible implications to raise firm performance in the context of emerging country SMEs.

#### 2. Literature Review and Hypotheses

## 2.1 The Relationship between Entrepreneurial and Technology Orientations

Entrepreneurial orientation has long been recognized as the key for initiating innovative activities (Miller, 1983). The view purported by Miller (1983) that the level of entrepreneurial orientation adopted by a firm is dependent on the level of pro-activeness, innovativeness and risk-taking, is widely supported within the existing academic literature (Madsen, 2007; Zahra & Covin, 1995). Entrepreneurial orientation is closely related to a proactive managerial mindset, a tendency to enter risky markets, and a propensity to act boldly and extensively to achieve a goal (Miller, 1987; Covin & Slevin, 1989).

Technology orientation refers to a firm's inclination to introduce or use new technologies and products (Gatignon & Xuereb, 1997; Hult, Hurley, & Knight, 2004). Hubert and Xuereb (1997, p. 78) define technology orientation as having "... the ability and will to acquire substantial technological background and use it in the development of new products. Technology orientation also means that the company can use its technical knowledge to build a new technical solution to answer and meet new needs of the users."

Whereas various authors suggest that technologically oriented firms are required to behave in an entrepreneurial manner to present their innovations as commercial products, a number of factor suggest that entrepreneurial orientation affects the level of technology orientation. The pro-activeness often associated with entrepreneurial orientation may mean that organizations adopting this strategic orientation will invest in new technologies to gain first-mover advantages. Previous research (Miller, 1983) examining pro-activeness and strategic orientation has also found that entrepreneurs who exhibit high levels of pro-activeness and risk-taking often create a greater number of unique products. This finding is indicative of technology orientation. The innovativeness often associated with entrepreneurial orientation helps to develop new technologies, while risk-taking through entrepreneurial behavior facilitates investment in products and technologies in which a return is uncertain (Miller & Friesen, 1982; Wiklund & Shepherd, 2005).

Previous research demonstrated that a positive relationship indicates that entrepreneurial orientation has a direct effect on technology orientation (Hakala, 2011; Wiklund & Shepherd, 2005). This relationship gives entrepreneurial orientation an opportunity to affect technology orientation in a positive way. In short, entrepreneurial orientation is believed to have a strong relationship with technology orientation.

Based on the above discussion, the hypothesis is given as follows:

H1 Entrepreneurial orientation is positively related to technology orientation

#### 2.2 The Relationship between Entrepreneurial and Market Orientations

Market orientation has thus far been conceptualized as either organizational behavior (Jaworski & Kohli, 1993; Kohli & Jaworski, 1990) or organizational culture (Deshpande, Farley, & Webster, 1993; Homburg & Pflesser,

2000; Narver & Slater, 1990). For instance, Narver and Slater (1990, p. 21) defined market orientation as "the organization culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business." These researches have stated that market orientation consists of the following three behavioral components: customer orientation, competitor orientation, and inter-functional coordination. Kohli and Jaworski (1990) have defined market orientation as composed of the following three sets of activities: the organization-wide generation of market intelligence; the dissemination of that intelligence across departments; and organization-wide responsiveness to that information. Although numerous other studies concerning market orientation have been conducted, the majority of authors have either adopted the definition of Kohli and Jaworski (1990) or that of Narver and Slater (1990). Our study adopts Narver and Slater's (1990) definition because of its focus on the aspect of a culture that creates values.

Entrepreneurial orientation refers to the processes, practices and decision-making activities employed by entrepreneurs that lead to new entry (Lumpkin & Dess, 1996, p. 136).

Entrepreneurial and market orientations are strategic tools to face an unstable and dynamic market trend itself. If only market orientation is the focus, one can have a limited strategic perspective on the current business area. Conversely, organizations that concentrate only on entrepreneurial orientation may obtain a high income through innovation.

Entrepreneurial firms often develop new business by using their current resource base; entrepreneurial orientation, thus, can lead to an increase in market orientation (Hakala, 2010). Therefore, market orientation that is based on entrepreneurial orientation can perceive the importance of the market (Kohli & Jaworski, 1990; Slater & Narver, 1995). Entrepreneurial orientation may point toward efforts to better understand customers (Atuahene-Gima & Ko, 2001; Bhuian, Menguc, & Bell, 2005; Li, Liu, & Zhao, 2008).

The more that an entrepreneurial orientation is encouraged; the more information businesses tend to gain regarding customer needs and competitor information (Barringer & Bluedorn, 1999). Moreover, there firms have an organizational culture that allows employees to share and use basic information regarding market orientation (Menon & Varadara-jan, 1992). In other word, entrepreneurial orientation is an antecedent of market orientation.

Previous research suggests that entrepreneurial orientation has a direct effect on market orientation (Baker & Sinkula, 2009; Hakala, 2011). Baker and Sinkula (2009) indicated that entrepreneurial orientation enhances market orientation by encouraging a culture that promotes firm performance.

Based on the above discussion, the hypothesis is given as follows:

H2 Entrepreneurial orientation is positively related to market orientation

2.3 The Relationship between Technology Orientation and Firm Performance

Technology orientation is purported by numerous authors to positively contribute to firm performance (Gao, Zheng, & Yim, 2007; Gatignon & Xuereb, 1997). This orientation is often considered an important source of organizational growth and innovation in many industries that feature an increased use of innovative technology (Zhou & Li, 2010). Roger (1983) argues that technology orientation assists organizations in adopting and utilizing new ideas and technologies earlier than their competitors. Technology-oriented firms invest heavily in R&D and accept state-of-the-art technology. With the technological knowledge in the organization, technology-oriented firms tend to be innovative in management.

Previous research suggests that technology orientation has a direct effect on firm performance (Gao et al., 2007; Gatignon & Xuereb, 1997; Zhou & Li, 2010). Hamel and Prahalad (1994) indicate a close relationship between technology orientation and firm performance. Zhou and Li (2010) suggest that technology orientation has a stronger effect on firm performance when market demand becomes increasingly uncertain.

It is perceived that technology orientation may be the key impetus for firm performance. In this vein, previous studies found that technology orientation positively influences firm performance (Hamel & Prahalad, 1994). These ideas and empirical findings point to the role of technology orientation as a potential antecedent of firm performance. Based on the above discussion, the hypothesis is given as follows:

H3 Technology orientation is positively related to firm performance.

2.4 The Relationship between Market Orientation and Firm Performance

The positive link between market orientation and firm performance has been widely highlighted (Ramaseshan, Caruana, & Pang, 2002; Farrell, Oczkowski, & Kharabsheh, 2008). Haugland, Myrtveit and Nygaard (2007) indicated the effect of market orientation on firm performance. This research conducted that market orientation

appeared to have a strong effect on firm performance. In addition, Martin-Consuegra and Esteban (2007) confirmed that market orientation is a key element of firm performance in the airline sector.

Similarly, the positive association between market orientation and firm performance has been proven in context of SMEs. Liu and Davies (1997) explained that market orientation is linked to higher firm performance in UK SMEs. In addition, Megicks and Warnaby (2008) found that market orientation is positively linked to firm performance. Ramaseshan et al. (2002) examined the relationship between market orientation and new product performance in Singaporean firms. The findings underpinned the proposition that market orientation positively contributes to the overall performance of new products. These researchers noted that enhancing market orientation is important because this orientation involves more regular research on current and changing customers' expectations and the collected ideas should be reflected in the new product development stage, thereby reinforcing the ability to offer new products to satisfy customers' needs and to achieve better firm performance.

Based on the above discussion, the hypothesis is given as follows:

**H4** Market orientation is positively related to firm performance.

#### 3. Method

## 3.1 Sample and Data Collection

We tested this model using a questionnaire survey of technology-intensive SMEs in the Dae-Gu/Gyeong-Buk area of South Korea. The sample was drawn from the South Korean Small and Medium Business Administration (SMBA) and checked against a list provided by the Korean Inno-biz Association. Inno-biz firms are certified by the Korean government as technology-intensive and innovation-oriented SMEs that produce technologically advanced products. The Dae-Gu/Gyeong-Buk region has emerged as an important hub for high-tech science and R&D and is therefore ideal for our research. The region has an established a R&D infrastructure, cooperation between industry and academia, and a number of public research institutes and technology research centers supporting companies' R&D activities. To increase response rates, we made personal, face-to-face contact with CEOs or senior managers of the firms to whom we sent questionnaires. Having contacted 1000 firms, a total of 347 usable questionnaires were used, yielding a response rate of 34.7%. The characteristics of the sample are shown in Table1.

Table 1. Characteristics of the sample (N=347)

Variable	Frequency	Percentage
Type of Business		
Electricity/Electronics	60	17.3
Machine/Machine parts	131	37.8
Automobile/Car parts	102	39.4
Primary metal/Metal working	54	15.6
Year of Establishment		
1990 ago	92	26.5
1991-2000	150	43.2
Over 2001	105	30.3
Number of Employees		
Under 10	46	13.3
11-20	93	26.8
21-50	122	35.2
51-100	54	15.6
Over 101	32	9.2

## 3.2 Scale Construction

The operationalization of constructs on the questionnaire was made using 5-point Likert scales, ranging from 1 (strongly disagree) to 5 (strongly agree). The items used for each scale are shown in Table 3 along with their standardized loadings. We used summed scales. Although this approach has been criticized by certain authors

(Oczkowski & Farrell, 1998), it is a technique that has often been used in previous related research (Hult et al., 2004; Brown & Peterson, 1994; Hartline & Ferrell, 1996).

Entrepreneurial orientation (EO) Researchers agree that entrepreneurial orientation is a concept that is comprised of risk taking, innovativeness, and pro-activeness (Miller, 1983; Covin & Slevin, 1990; Zahra & Covin, 1995). Based on the research of Miller (1983), Lumpkin and Dess (1996) and Frishammar and Hörte (2007), we captured entrepreneurial orientation as the willingness to accept risk-taking and to engage in pro-activeness and innovativeness.

Market orientation (MO) We built a scale for market orientation based on the constructs of customer orientation, competitor orientation, and inter-functional coordination to satisfy customer needs (Narver & Slater, 1990). We used the established scale developed by Narver and Slater (1990) that captures these components and emphasizes the consideration of stakeholders when reacting to market information.

Technology orientation (TO) We built a scale for technology orientation following the concept developed in Gatignon and Xuereb's (1997) study. This scale captures the propensity of the firm to consider the latest technology, invest in the use of advanced technologies in new product development, emphasize technological forecasting, and recruit well-trained R&D personnel.

Firm performance (FP) Following Akgun et al. (2007), we asked respondents to provide data on the performance of their company relative to major competitors over the previous three years. We used the following four aspects of performance: market share, growth rate, and so on (Akgun et al., 2007).

Control variable Firm size was assessed via the number of full-time employees of their firms (Gulati and Higgins, 2003). Murphy et al. (1996) argued that the turnover has a significant impact on measuring the firm size by comparing from previous year and this study has used firm size as control variable.

## 3.3 Data Analysis and Quality

To ensure the reliability and validity of the data we conducted following tests.

We applied key parameters method to examine sample selection bias (Park & Ghauri, 2011). In our study key parameters are firm age and firm sales. By conducting a t-test, we did not find significant differences between the total target population and the means of the used sample. We also distinguished the non-sample and sample firms. Results revealed that two samples are statistically similar (firm age: p=0.472, firm sales: p=0.723). These results indicate that sample selection bias is not likely to be a problem in this study.

Second, we utilized several methods to analyze common method variance. To avoid this problem, measurement items on the questionnaire were structured in random and non-sequential order to mitigate consistency bias. In order to overcome social desirability bias assured participants' confidentiality (Podsakoff et al., 2003, p. 888). Questionnaire including dependent variable items were collected 10 weeks after receiving the questionnaires that include independent variables. Finally, we conducted Harman's single-factor test (Podskaoff et al., 2003). We utilized a confirmatory factors analysis by including all items and examined whether a single factor emerged. Results demonstrate very poor model fit for a single factor ( $\chi$ 2=1365.587 (df=152, p=0.000),  $\chi$ 2/df=8.984, GFI=0.682, AGFI=0.603, RMR=0.059, RMSEA=0.137, NFI=0.769, TLI=0.762, CFI=0.788).

Although we cannot eliminate the potential for common method variance, these measures mean that variance is unlikely to account for any observed relationship among the variables of interest.

Third, we checked for multicollinearity issue among variables by testing variance inflation factor (VIF) values. Multicollinearity issue is likely to be a major concern when variation inflation factors (VIF) > 10 and tolerance values are < 0.1 (Hair et al., 2006). VIF values ranged between 1.826 and 2.892 and the lowest tolerance was 0.346. Therefore, multicollinearity issue is not considered to be a major concern of this study.

#### 4. Results

Table 3 presents the means, standard deviations, and correlation coefficients of all the variables. Using the Pearson correlation r, which estimates the degree of linear association, a correlation analyses was conducted. -1.00 to +1.00 is the range for correlation value (Kline, 2005). Table 3 outlines the correlations of all 5 constructs. This analysis shows that there was a moderate correlation between these four constructs. The results show that there was high correlation among entrepreneurial orientation, technology orientation, market orientation, and firm performance.

Table 2. Final measurement model

Scale	Standardized loadings
Market orientation (MO) (α=.928)	
Competitor orientation	
We rapidly respond to competitive actions that threaten us.	0.72
Our salespeople regularly share information concerning competitors' strategies.	0.83
Top management regularly discusses competitors' strengths and strategies.	0.73
Inter-functional coordination	
Our business objectives are driven primarily by customer satisfaction.	0.81
Our strategy for competitive advantage is based on our understanding of customer needs.	0.82
Our strategies are driven by beliefs about how we can create greater value for customers.	0.85
We measure customer satisfaction systematically and frequently.	0.75
Customer orientation	
All of our business functions are integrated in serving the needs of our target markets.	0.70
All of our business functions are responsive to each other's needs and requests.	0.81
Our top managers from every function regularly visit our current and prospective customers	0.85
We communicate information about customer experiences across all business functions	0.78
Our managers understand how we can contribute to creating customer value	0.84
Technology orientation (TO)( $\alpha = .846$ )	
The policy of this firm has been to always consider the most up to-date production technology available.	0.71
We spend more than most firms in our industry on new product development.	0.72
We devote extra resources to technological forecasting.	0.76
We are actively engaged in a campaign to recruit the best qualified R&D personnel available.	0.84
Entrepreneurial orientation (EO) ( $\alpha$ =.898) Innovativeness	
Technical innovation, based on research results, is readily accepted	0.76
We actively seek innovative product and service ideas	0.83
Innovation is readily accepted in program/project management in our company	0.89
Innovation in our organization is encouraged.	0.79
Risk-taking	
We initiate actions to which other organizations respond.	0.75
We are fast to introduce new products and services to the marketplace.	0.96
Proactiveness	
We have a strong proclivity for high-risk projects.	0.75
We are bold in our efforts to maximize the probability of exploiting opportunities.	0.83
Firm performance (FP)( $\alpha = .899$ )	
In comparison with your major competitors over the past three years, our performance has been more successful.	0.81
In comparison with your major competitors over the past three years, your company has more market share.	0.84
In comparison with your major competitors over the past three years, your company has more growth rate.	0.89
In comparison with your major competitors over the past three years, your company has more profitability.	0.87
Goodness-of-fit statistics	
(X2(71)=194.118, RMR=0.026, GFI = 0.939, RMSEA = 0.064, NFI = 0.950, IFI=0.968, TLI=0.959, CFI = 0.968)	

Table 3. Scale means, standard deviations and correlations

Scale	Mean	S.D	1	2	3	4	5
1. EO	3.90	.64	1				
2. MO	3.92	.67	.664**	1			
3.TO	4.03	.66	.764**	.595**	1		
4. FP	3.77	.74	.495**	.487**	.448**	1	
5. Firm Size	1.42	.40	089	099	173	.036	1

<sup>\*\*</sup> significant at the .01 level (two-tailed); firm size was log transformed

Table 4 reports the results of the structural equation model. While the value of  $\chi$ 2(83)=228.414,  $\chi$ 2/df=2.752 is significant, the various other values in the measurement model indicate an adequate model fit (RMR=0.032, GFI = 0.934, RMSEA = 0.064, NFI = 0.927, IFI=0.962, TLI=0.952, CFI = 0.962). The root mean residual (RMR) falls within an acceptable range (less than 0.07) (Bagozzi & Yi, 1988). The RMSEA considers the error of approximation in the population and is sensitive to the number of estimated parameters in the model. Values between 0.05 and 0.08, as we found in our constructs, are acceptable (Browne & Cudeck, 1992).

Table 4. Results for the structural model

Path	Standardized coefficient	T-value	Hypothesis
Entrepreneurial orientation →Market orientation (H1)	0.782*	14.396	Support
Entrepreneurial orientation $\rightarrow$ Technology orientation (H2)	0.928*	17.038	Support
Market orientation →Firm performance (H3)	0.328*	4.331	Support
Technology orientation →Firm performance (H4)	0.367*	4.809	Support
Farm size → Firm performance	0.079	1.907	
$\chi_2(83)$ =228.414, x2/df=2.752, RMR=0.032, GFI = 0.934, RCFI = 0.962	RMSEA = 0.064, NFI = 0.92	27, IFI=0.96	62, TLI=0.952,

<sup>\*</sup> p< 0.001

The structural path coefficients allow us to determine whether we can reject our null hypotheses.

As Table 4 demonstrates, entrepreneurial orientation has a positive effect on market orientation ( $\beta$ =.782, p<.001) as does technology orientation ( $\beta$ =.928, p<.001). These results concur with various previous studies (Baker & Sinkula, 2009; Hakala, 2011; Wiklund & Shepherd, 2005). Thus, H1 and H2 were supported. Market orientation ( $\beta$ =.328, p<.001) and technology orientation ( $\beta$ =.367, p<.001) had a considerable effect on firm performance, which proved to be consistent with previous studies (Gao et al., 2007; Gatignon & Xuereb, 1997; Zhou & Li, 2010). These results indicate that both market orientation and technology orientation are crucial factors for encouraging firm performance. That is, the greater market and technology orientation of a firm, the more firm performance is emphasized and fostered within the organization. Thus, H3 and H4 were both supported.

#### 5. Discussion

This study investigated the relationships between entrepreneurial-market orientations and entrepreneurial-technology orientations and the impact of market and technology orientations on firm performance in Korean SMEs. We comprehensively derived possible conceptual models and test them using a survey of emerging country SMEs. The main implications of our empirical findings are as follows.

First, this research goes towards highlighting the importance of developing a more integrated approach to studying the relationshipentrepreneurial orientation, market orientation, technology orientation and firm performance through a new model. The present study provided a more systematic explanation on how strategic orientation brings positive outcome in firm performance.

Second, the key finding of the relationship between entrepreneurial-market orientations and entrepreneurial-technology orientations indicates that entrepreneurial orientation is an antecedent of market and technology orientations. This result implies that entrepreneurial orientation can be seen as a key strategic behavior that is part of a system of strategic orientations that guides how the firm develops and deploys its

resources for innovation. In other words, this finding affirms the notion that entrepreneurial orientation provides managers with the innovativeness, pro-activeness and risk-taking frame of mind required to embark on market orientation and technology orientation. This is similar with results of prior researches (Hult et al., 2004; Keskin, 2006; Rhee, Park, & Lee, 2010).

Third, the findings show that both market and technology orientations are important drivers of firm performance. It was found that technology and market orientations positively affect firm performance. This result implies that technology and market orientations are key factors that influence firm performance in SMEs. This result is identical with results from antecedent researches (Augusto & Coclho, 2009; Gatignon & Xuereb, 1997; Hult et al., 2004; Rhee et al., 2010) which argue that technology and market orientations are closely related to firm performance. Our study also contributes an important explanation regarding the existence of a link between market orientation-firm performance and technology orientation-firm performance.

In conclusion, while market orientation and technology orientation may help managers to devise superior products, processes and ideas, entrepreneurial orientation provides the stimulus for driving such activities. This is because entrepreneurial orientation embodies the qualities of innovativeness, proactiveness and risk-taking. Accordingly, entrepreneurial orientation might be regarded as the spark the relationship between market orientation and technology orientation.

This research implies that an organization may need to strengthen entrepreneurial, market, and technology orientations to achieve improved firm performance. To achieve and maintain positive firm performance, a firm must possess an organizational structure that integrates and incorporates entrepreneurial, market and technology orientations into a coordinated framework that supports innovative activities to take advantage of the benefits that entrepreneurial, market, and technology orientations can allow.

The present study contributes to the literature on strategic orientation in a number of ways.

First, we particularly provided insight into how emerging country SMEs build strategic orientation for better firm performance. This overcomes the weakness in previous studies that have used a narrower focus of one or two dimension of strategic orientation. Thus, the present study helps the manager to better understand what types of strategic orientation should be encouraged with a view to increasing the level of firm performance.

Second, this research targets emerging country SMEs. Although many studies regarding strategic orientation have been done so far, a little research (Rhee et al., 2010) has been conducted in the SMEs context of emerging countries. A majority of previous research targets large companies (Hult et al., 2004) in developed countries rather than emerging country SMEs. However, this study extends previous literatures of strategic orientation to emerging country SMEs and shows the relevance of their theories and empirical findings.

The present study has a number of limitations and suggestions for further research.

First, the generalization of our results is limited. This research was conducted on Korean technology intensive SMEs. Future research could address these issues and explore new research questions, such as: comparing our model of strategic orientations and firm performance across two or more emerging countries, and also manufacturing and services business.

Second, this research did not analyze sub-construct variables of market orientation (competitor orientation, inter-functional coordination and customer orientation) and entrepreneurial orientation (innovativeness, pro-activeness, risk-taking). Future research could investigate sub-construct variables of market and entrepreneurial orientations for better understanding of the role of strategic orientation.

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## Measurement Dimensions for Arabic Language Teachers in Malaysia

M. al-Muslim<sup>1</sup> & Zamri Arifin<sup>1</sup>

Correspondence: M. al-Muslim, Department of Arabic Studies and Islamic Civilization, Faculty of Islamic Studies, Universiti Kebangsaan Malaysia, Malaysia. Tel: 60-13-935-8650. E-mail: almuslim@ukm.edu.my

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#### **Abstract**

Arabic language education in Malaysia has been considered unsuccessful. Therefore, Arabic language teachers as the main factor behind the success of school education system need to be transformed via a preparation, construction and evaluation of teacher quality. Hanna and Gimbert (2011) proposed three major initiatives in teacher quality evaluation beginning with identifying the dimensions in teacher quality. Subsequently, this paper has set upon two objectives, namely (a) to study the dimensions of teacher quality among the scholars, and (b) to identify the best dimensions for quality measurement of Arabic language teachers. The two objectives were achieved through a descriptive qualitative research via literature review of the views and works of previous scholars. A thematic approach was employed in the filtering process and data analysis with the help of Altas.ti version 7.1 software. Results of the study found that a diversity of teacher quality dimensions had been used in most of previous researches namely, teacher qualification, teacher characteristics, and in-class practice teaching effectiveness. This study has also identified a framework proposal for quality measurement dimensions for Arabic language teachers. In addition, this working paper also suggests a further study to complete the dimension framework proposal together with several aspects which need to be emphasized.

Keywords: teacher certification, teacher characteristics, teacher practices, teacher quality, teaching effectiveness

## 1. Introduction

Teaching is a noble profession. For Muslims, this profession is a continuation of the duty of the Prophets. Therefore, teacher has a special position in the society's view. Today, the change of time brings teaching profession to a more challenging level. In line with the progress and current needs, teachers face various demands. Not only are they responsible for the students but also they are to play a dominant role in realizing the inspirations of the religion, nation and the state as listed in the national education philosophy. The whole nation depends upon the effectiveness and efficiency of each teacher executing their duties. Teachers who teach the Arabic language to the sons and daughters of the Malaysian nation are of no exception. They carry a huge responsibility in their own field in line with the current challenges of Arabic language education (Yaakub, 2007). Their biggest challenge is to return Arabic language education to a position at par with its special position in the nation's education system and in the culture of the Malaysian majority community. This is due to that Arabic language education has so far been concluded as unsuccessful (Rejab, 1992). The special position of the Arabic language in the national education and the current situation of the Arabic language education add more burdens of responsibility which must be discharged by all Arabic language teachers. The success in overcoming these challenges and carrying the weight of the nation's trust lies in the competency and quality of the existing Arabic language teachers. Behind these challenges, a pertinent and urging question remains; does the prepared Arabic language teaching force fulfill the criteria of a true language teacher? (Mat & Soon, 2010)

In the context of student learning, quality teacher is a factor which plays an important role. Even though there are other factors which can influence student performance such as student demography and educational background and economic and social status, teacher quality is more dominant and significant. In fact, teacher quality is more of value to the student performance than other investments in the improvement of the education system such as reduction of number of students per class by adding new classes, salary increment for teachers and all expenses related to education (Andrews, 2012; Croninger, Rice, Rathbun, & Nishio, 2007; Goe, 2007; Lovat & Toomey, 2009). Therefore, should a transformation in the Arabic language education be initiated in Malaysia, the main focus would be to develop and prepare quality teachers capable of confronting the current education challenges.

<sup>&</sup>lt;sup>1</sup> Department of Arabic Studies and Islamic Civilization, Faculty of Islamic Studies, Universiti Kebangsaan Malaysia, Malaysia

Priority in the transformation policy must be set based upon a general consensus among scholars which states that teacher quality is the most influential factor in student achievement (Anonymous, 2010).

There would be no good education without good teacher quality (Lin, Xie, Jeng, & Huang, 2010)

To realize the focus of developing and preparing quality teachers, Hanna & Gimbert (2011) proposed three main steps in stages;

- 1) Identifying and defining dimensions of teacher quality;
- 2) Developing instruments capable of measuring the dimensions;
- 3) Developing and testing models of teacher quality that account for the multi-dimensional nature teaching and learning.

In line with the proposal by Hanna and Gimbert (2011) and as a commencement of Arabic language education transformation in Malaysia, this paper set its main objective as to identify dimensions in the measurement of Arabic language teacher quality. The objective of this study is achieved through a literature review of scholars' views and researches which later is synthesized into general dimensions of Arabic language teacher quality. The outcome is an initial framework proposal for the measurement of Arabic language teacher quality as presented towards the end of this article.

#### 2. Method

This study is a descriptive form of qualitative research. The main source of study was previous studies. Data were extracted and analyzed from sources via a thematic approach. The extraction process was carried out with the assistance of *Atlas.ti* version 7.1 software. This process was completed with an *auto-coding* function in the software using a *teacher quality* theme as search keyword. As a result, there were 150 excerpts obtained within the theme of *teacher quality*. After that, data filtering and analysis were manually done by considering the approach and dimensions used in understanding teacher quality concept as well as suggestions and criticisms among the scholars. Results of the analysis were later organized based on the need of the pre-determined research objectives.

#### 3. Results

## 3.1 Concepts of Teacher Quality

Teacher's role in the success of education has long been agreed upon. The factor of quality teachers is by far ahead of other factors especially in the context of learning at schools (School-Based Factor). Therefore, the concepts of teacher quality and their understanding have been deliberated since the 1970's and are still being talked about until today (Blanton, Sindelar, & Correa, 2006). However, the definition and measurement of teacher quality are still vague and hotly debated.

Ambiguity in the definition of teacher quality does not mean that there is no indicator used as a proxy for quality teachers. In fact, numerous researches on quality measurement have been carried out based on specific criteria (Goe & Stickler, 2008). Nevertheless, teacher quality is still considered unclear due to an absence of consensus among scholars in the meaning and dimensions which represent teacher quality concepts (Blanton et al., 2006; Burnett & Meacham, 2002; Fuller, Young, & Baker, 2010; Goe, 2007). Also, according to Cavalluzzo (2004) there is no consensus on the behaviors which contribute to quality teaching.

According to Goe (2007), in conclusion there are 4 fundamentals debated as dimensions to understand and subsequently measure teacher quality: (1) qualification, (2) characteristics, (3) in-class practices, and (4) effectiveness. These fundamentals individually have their own merits and weaknesses.

#### 3.1.1 Teacher Qualification

Teacher qualification covers indicators and variables such as education level, certificates, teaching experience, teaching qualifying test and credentials. Traditionally, these indicators have long been used and considered as symbols for quality teacher even without being linked to student performance (Fuller et al., 2010). Different from process-product models, teacher qualification is often viewed as part of the input. Among policy makers, the definition of quality teacher which carries the meaning of 'fully qualified' is easier to accept than definitions by researchers in the teaching field. The acceptance is due to the fact that policy makers need information and fast and accurate measurement to facilitate their communication with the public (Blanton et al., 2006). Hence, the authority is seen to be putting efforts to prepare highly qualified teachers for placement in schools by creating special education system for teachers, listing educational certification and lately enactment of teacher act and standard such as the *Standard Guru Malaysia* (Malaysian Teacher Standard) 2011.

Around the same time, Andrews (2012) questioned whether qualification as set by the No Child Left behind Act (NCLB)-for example-can bring about student progress especially when it involves new teachers. Is the teacher considered highly qualified without looking at student performance at the end of the year? To Andrews, fulfilling the standard and passing qualifying tests do not guarantee teacher quality. From that angle, Goe (2007) stated that the biggest deficiency in such definition is the probability of highly qualified teachers performing badly in real class situation. Moreover, these indicators are too general and there is no way of determining which characteristics, items or processes contribute and directly influence good teaching or student achievement (Croninger et al., 2007). Overall, these traditional parameters do not significantly represent changes in student progress compared to other parameters (Buddin & Zamarro, 2009; Gallagher, 2004; Isaacs et al., 2012).

Nevertheless, there are researches which have shown a close link and consistency between certain qualification and student progress. For example, research into mathematics students found that a degree qualification in mathematics and related certificate had consistent relation with student achievement in mathematical subjects (Goe, 2007). Andrews (2012) also affirmed that latest research proved that the level of teacher expertise significantly influences student progress.

Taking conflicting research into consideration, most probably certain qualifications are effective in certain subjects as opposed to other subjects or for a specific period. For example, experience is important for the first few years only (Goe, 2007). This scenario calls for more related research at a larger scale.

#### 3.1.2 Teacher Characteristics

According to Goe & Stickler (2008), teacher quality is often singularly understood as teacher characteristics. Therefore, characteristics are rarely measured with student achievement. The terminology of 'characteristics' in general encompasses behaviors, attitudes, styles, beliefs, immutable characteristics such as gender, ethnicity and race as well as certain abilities like the ability to speak in the target language. In short, characteristics are what a teacher carries in himself into the class. A drawback in defining teacher quality using characteristics is that some characteristics are difficult to change and some are immutable (like natural characteristics of race and gender) while many are almost impossible to synchronize with the research output. In some circumstances, teacher characteristics is also difficult to measure (Lavy, 2011).

Empirical evidence has so far failed to specifically identify which teacher characteristics can be linked to high achievement (Buddin & Zamarro, 2009; Smith & Gorard, 2007). On another viewpoint, researchers such as Croninger et al., (2007) stated that there is proof that teacher characteristics reflect student achievement in reading skill. This was supported by a study by Ehrenberg, Goldhaber & Brewer (1995) which found that teachers might appraise differently based on gender. The same study however showed that teacher characteristics such as gender, race and ethnicity did not affect student achievement.

All the while various studies have been carried out. However, no explicit conclusion can be made as to which teacher characteristics have an impact on student achievement. While some researchers found significant link for some variables, others found otherwise. According to Lee (2010), there was agreement on some general teacher characteristics suitable for various subjects. Nevertheless, there was no consensus on specific teacher characteristics for certain disciplines. Because of that, Goe (2007) opined that more studies in this scope are necessary to determine more holistic evidence.

## 3.1.3 In-class Practices

One of the many teacher quality definitions presented in studies concerns practices in the classroom. In-class practices refer to behaviors and attitudes of teaching. Normally, such studies used observations or self-assessment reports as research instruments. Teacher standard is a quality measurement often considered in determining teacher practices. This is based on the objectives of standards development itself which are to observe practices, knowledge and teacher ability to prepare quality learning opportunities. The United States in particular has introduced its own standard to prepare highly capable teachers. The National Board For Professional Teaching Standards (NBPTS) formed in 1987 is the only teacher quality measurement system which finds its place in numerous studies on content reliability (Ingvarson & Rowe, 2007). Malaysia too introduced its own *Standard Guru Malaysia* (The Malaysian Teacher Standard) and is extensively used in self-assessment exercises.

According to Darling-Hammond (2009), the problem with the current teacher quality measurement is that measurement is often not correlated with teaching ability. The authority in particular much depends on principal's reports, records of attended courses or results of tests on skills and general knowledge of the subject. All these indicators are too weak to describe classroom effectiveness performance. To him, underlying the

importance of teacher's knowledge, skills and others, it all depends on the way teacher handles the class (Darling-Hammond, 2012).

Nevertheless, the effectiveness of teacher practices on student achievement is often disputed. Even though most studies in this scope showed positive links between classroom teacher practices and student achievement, the findings in general were statistically and practically insignificant. In fact, some studies can be questioned as to their research design, research data or instruments which were possibly inconsistent with research objectives. To summarize, there is a deficiency in terms of result validity and reliability (Goe, 2007).

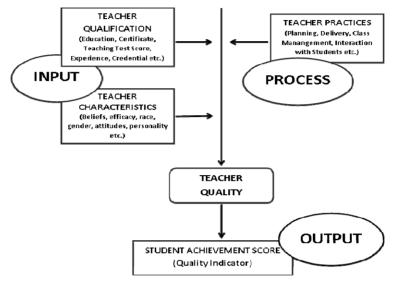


Figure 1. Differences of four fundamentals in the definition of teacher quality (Adapted from Goe (2007))

## 3.1.4 Teaching Effectiveness

Effectiveness is considered as a component or product of work of quality teacher. Quality teacher is one who has a positive impact on student achievement. Nowadays, examination results are often used as indicators of teacher quality. In addition, the use of student output, in particular their performance in examination as measurement of teacher quality, receives strong support and credibility from education professionals and the authority themselves. This is a result of extensive implementation of standardized tests in schools. Student achievement scores in such tests which are readily available became the attracting factor to use them in research on teacher quality (Blanton et al., 2006).

Value-added models are among the well-known measurement models among researchers and often employed for appraising, selecting and determining quality teacher. This model is specifically designed to pin-point contribution or effect of teacher on student achievement scores for a specific duration. Based on that objective, it has been used in studies of teacher quality to identify teacher effectiveness onto student achievement. However, the issue of lack of parametric approach and uncertainty in teacher specific characteristics which affect student scores in this added value model triggered many questions on, in particular, aspects of assessment and government policies (Hanushek & Rivkin, 2010)

According to Goe (2007) there are three issues which impair the definition of teacher quality using student achievement test scores only.

- 1) Standardized achievement test were purposely designed to measure student achievement. They were not intended to assess teacher quality.
- 2) It is difficult to determine which and to what extent the product is resultant from the effect of the teacher factor or the class factor.
- 3) It is also difficult to obtain data which link specific student score with specific teacher.

She also questioned the practicality of teacher quality definition which is only determined by effectiveness. How do the responsible parties determine who is qualified to teach for the first time, while his students have not been assessed.

#### 4. Discussion

#### 4.1 Diversity of Measurement

Much has been done in research on teacher quality. Since there is no consensus among the researchers on the definition of teacher quality, studies on teacher quality have been conducted with various objectives, research designs and measurements. All parties be they politicians, philosophers, government authorities, school administrators, students, researchers and even teachers themselves hold their own view on the concepts of teacher quality (Burnett & Meacham, 2002). This difference in views occurs due to some reasons. One of them is the understanding of the teacher quality concepts of either a good teacher or an effective teacher. Fenstermacher & Richardson (2005) were the first to reevaluate the meaning behind the term "teacher quality" which differentiates between good teaching and effective teaching. Teacher quality which carries the meaning of good teaching only concentrates on process and input whereas successful teaching takes into account changes in the target group particularly students. At around the same time, another group of researchers defined teacher quality as having both meanings (Blanton et al., 2006).

Mixed and uneven measurement also occurs due to the factor of different objectives. Policy makers usually desire fast and accurate data to ease communication of their policies with the public. They therefore tend to opt for aspects of qualification and test results which can easily be measured and meet their requirement. In fact, there are studies which tend to have the same line of thinking so their findings are more consistent and 'straight to the point'. This can be seen through the extensive use of value-added models for ascertaining the level of teacher quality. Their objective may be different from that of other researchers. They are more interested in deep understanding of teacher quality concepts via dimensions which are seen related.

According to Burnett & Meacham (2002), a diversity in the definition and measurement of teacher quality, apart from the research objective factor, is affected by the difference in source of data, multitude of data interpretation and the choice of sample. At the same time, areas in teaching profession are diverse and varied especially in terms of their objectives and teaching and learning approach (Jasmi, 2010). Areas which nurture skills such as the Arabic language surely need teachers with specific approach and technique, apart from having language skills. The scenario is different for subjects who stress on facts such as history and economy.

Therefore, a conclusion can be made that disagreement and ambiguity in defining teacher quality are neither due to studies on teacher quality being weak nor their attainment being not at par with research in other areas. They are due to the natural vastness of the teacher quality term to the extent that it can be interpreted with various understanding which in turn brings forth different dimension measurement. This statement is important for it will determine how or through what quality Arabic language teachers will be identified.

## 4.2 Measurement Dimensions

What happens in the current world of teacher measurement embarked upon the criteria of either good teacher or effective teacher. Researches on measurement based on good teacher dimensions have been focusing on the teacher itself. The good teacher dimension is observed either from the angle of his or her knowledge, received training, obtained qualifications, behaviour, teaching practice and other aspects directly linked to it. In simpler terms, high quality Arabic language teachers are those who are well-equipped in the field of teaching. The standard teacher package introduced by authorities in several countries is based on the good teacher concept. This includes the Malaysian Teacher Standards (MTS) introduced by the Malaysian Ministry of Education which encompass Arabic language teachers. In line with the adopted concept, MTS provides a specific attention to three standards:

- 1) Practice of Teaching Professionalism Values Standard
- 2) Knowledge and Understanding Standard
- 3) The Skills of Teaching and Learning Standard

Lately, researchers tend to look into the diversity of dimensions contained in the concepts and definition of quality teacher and their link with each other. As proposed by Hanna & Gimbert (2011) education researchers are advised to construct a model of teacher quality which is comprehensive and holistic. Fenstermacher & Richardson (2005) for instance considered two dimensions simultaneously namely (1) good teaching and (2) effective teaching. Good teaching involves expectations of teaching profession which must be fulfilled such as possessing certificates, sufficient knowledge in the subject, preparation and the likes. Effective teaching means product of teacher intervention in learning and student learning are also taken into account. Following the same tune, Blanton et al. (2006) viewed that traditional studies which depend on certain understanding of teacher quality should be combined and formulated into several measurement designs. As an example, teacher education

is linked with teacher quality which in turn is linked with student product. Linking teacher quality with student achievement in particular would attract the attention and acceptance of education policy makers.

Other researchers also voiced the same opinion. They stressed on the importance and necessity of conducting a study which consider all of the indicators and variables which are related to teacher quality (Wayne & Youngs, 2003; Wichadee, 2010)

The proposition is logical and practical, more so since many variables representing quality teacher which are found to be of high correlation with each other. For example, teacher education level is usually linked with age, experience and academic capability. Certification is frequently correlated with knowledge on the subject, education training and experience (Darling-Hammond & Youngs, 2002). Goe (2007) is also in favor of combining the dimensions based on her study which outlined the advantages and disadvantages of each determination and measurement mechanism of teacher quality. Viewing teacher quality concepts through diversified dimensions will reduce the weakness and deficiency of assessment which occur when only one dimension is taken into account.

By taking into account propositions by scholars as previously mentioned, this paper therefore proposes that dimensions for Arabic language teacher measurement in Malaysia be inclusive of several dimensions simultaneously.

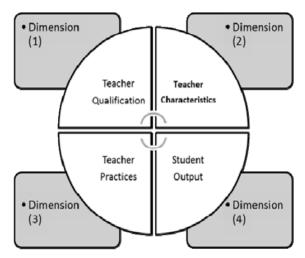


Figure 2. General framework of four (4) measurement dimensions for Arabic language teacher

These four dimensions are only general guidelines on aspects which should be involved in the study and measurement of Arabic language teacher quality in Malaysia. To determine items representing each dimension, a field study must be conducted. Groups linked to Arabic language teacher such as the principal, colleagues, policymakers, teacher training institutions and students are targeted for this study. Their voice is important in determining items for each dimension at the early stage. Their comprehension of each dimension can also be known like, for example, student dimension. Do only examination results represent student output? Or are other aspects like increasing student confidence, interest and expectation in the subject also part of effective student learning output? Besides that, the study is also crucial in weighing the situation of local Arabic language education in line with the concept of quality itself which differs from place to place (Burnett & Meacham, 2002). Observational study on target groups makes it possible for local elements to be considered in the ala-Malaysia Arabic language teacher quality model.

Burnett & Meacham (2002) proposed to consider an understanding of teacher quality based on student perspective as compared to what students achieve, what the teacher practices or what qualification the teacher has. This must be emphasized because many studies are based on auxiliary data which are interpreted using supporting sample, not through direct observation or perception of students who are the main target of education. Students are the group which is directly affected by teachers as compared to other group. Moreover, data from teacher observation or self-report were found to be of low credibility compared to those obtained from students (Anonymous, 2010). Nevertheless, Wichadee (2010) proposed that both sets of data be accumulated and compared so that a balance occurs when selection is made. On the teacher's side, it is of great benefit to know which characteristics deemed by the students as those of high quality teachers.

Further studies are also necessary to ensure validity and reliability of the items of measurement instruments as proposed by Hanna & Gimbert (2011). Also according to Hanna and Gimbert (2011), the next step is to construct a complete measurement model based on previously determined dimensions and credible instruments. Student achievement is the main output for the process of teaching and learning including that of the Arabic language. In the context of Arabic language education in Malaysia, it was found that the concept of student performance increase was not implemented at all as an indicator for teacher quality. The same scenario occurs in the teaching of other subjects. The Malaysian teacher standard framework and the selection of excellent teachers according to subjects by the Ministry of Education Malaysia through the Inspectorate takes into account the concept of *good teacher* and not *effective teacher*. This matter is clearly evident in the criteria previously set in the documents of MTS and Excellent Teacher (see Appendices A and B for complete proofs). Any model or method introduced without effectiveness toward targeted groups is futile. The emergence of analytical technique of *Structural Equation Model* (SEM) coupled with the invention of various advanced and sophisticated software assists researchers in knowing the suitability of a model or theory in research situation. Besides, Blanton et al., (2006) specified six criteria which can be used to evaluate measurement model for Arabic language teachers namely utility, credibility, comprehensiveness, generality, soundness and practicality.

#### 5. Conclusion

Teacher quality is the main factor behind the effectiveness of learning system in schools. Therefore, knowing the dimensions in teacher's quality is fundamental. However, the absence of consensus among scholars in certain dimensions of the quality complicates measurement and evaluation of quality Arabic language teachers. As a solution, a proposal to correlate and combine the dimensions in a measurement framework is presented. To complete, another study is proposed to include several target groups for the purpose of detailing out the proposed dimensions. This study should also be aimed at providing a framework for measurement dimensions of Arabic language teachers with local and specific characteristics so that a module suitable with the Malaysian context can be presented.

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## Appendix A

#### **Malaysian Teacher Standard (MTS)**

The Teacher Training Division (TTD) of the Ministry of Education Malaysia had taken the initiative to formulate a teacher standard as a guideline and reference for teachers, teacher trainings, agencies and teacher training institutions in Malaysia. The standard covers the following three aspects:

Standard 1: Practice of Teaching Professionalism Values

This standard details the competencies in the practice of teaching professionalism values based on personal domains, professional and social which should exist in a teacher. The Practice of Teaching Professionalism Values is drafted based on the culture at Institutes of Teacher Education (ITE), Code of Conduct of the Teaching Profession, the values in the school curriculum, core values in the Civil Service, the main principles of the MOE Work Ethics, and The Twelve Pillars.

Standard 2: Knowledge and Understanding

This standard details the competencies in knowledge and understanding on specialization subjects, the science of education, curriculum and co-curriculum which should exist in a teacher. A teacher who possesses and masters a solid grasp of the knowledge boosts teaching professionalism, discharging duties efficiently and effectively as well as becoming more creative and innovative.

Standard 3: Teaching and Learning Skills

This standard details the competencies of teaching and learning skills which a teacher should command. This standard focuses on teacher ability to plan, implement and evaluate academic and co-curricular teaching and learning.

## Appendix B

## Ministry of Education Malaysia Excellent Teacher Characteristics

Excellent Teacher has the following characteristics in terms of quality:

Personality: An Excellent Teacher is one who has a praiseworthy character, is competent and adherent to teaching and civil service work ethics as well as sensitive and concerned with student needs who can become a role model for teaching fraternity.

Knowledge and skills: An Excellent Teacher is one who masters and appreciates the subject content or specialization field and its expertise, a reference for teaching and learning, wise in managing time, resources, teaching and learning tools, capable of identifying needs and learning problems of the students and preparing follow-up actions, as well as knowledgeable and skillful in information and communication technology.

Handiwork: An Excellent Teacher is one who is capable of increasing learning outcomes towards developing student potential in line with the National Education Philosophy.

Communication: An Excellent Teacher is one who possesses a high communication skill and is capable of delivering ideas and messages effectively in various situations.

Potential: An Excellent Teacher is one who is visionary, proactive, has initiatives, characteristically responsive and innovative within the framework of discharging duties as an educator.

Contribution to progress in national education: An Excellent Teacher is one who is able to generate new ideas in his or her own subject or specialization and share the ideas to increase the quality of national education.

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# Educational Development of NGO Beneficiaries in Bangladesh: A Disjunction between Programmes and Implementation

Mohammad Aktaruzzaman Khan<sup>1,2</sup>, Md. Aminul Islam<sup>3</sup> & Anees Janee Ali<sup>2</sup>

Correspondence: Mohammad Aktaruzzaman Khan, Department of Business Administration, IIUC, Bangladesh. E-mail: rajarkul2002@yahoo.com

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#### Abstract

This study examines the relationship between NGO programmes and their clients' educational development. NGOs play a very significant role with a view to achieving their development goal. Developing countries consider education as the key aspect for their socio-economic development. The study focuses on this perspective and asks the relationship between NGOs' socio-economic and training programmes (by Kirkpatrick's training taxonomy) and educational development of their beneficiaries. A quantitative research approach was employed to investigate this relationship. A total of 300 responses from three leading NGOs were analysed using multiple regression analysis. The results suggest that NGOs' informal education and two training dimensions (learning and behaviour) contribute significantly to their clients' education while health, micro-credit, and the other training dimensions (reaction and result) have on effect. These findings have implications for strategic roles of NGOs also for future research in filling the gap between their programmes and implementation.

Keywords: NGOs, health, education, micro-credit, training, socio-economic development

## 1. Introduction

In the year 2000, 189 UN member states set eight millennium development goals (MDG), focused at human development that centered on the development of education, health, and income components to be reached by 2015. In the way of achieving these, developed nations have been contributing their aid to poor nations. However, the recent Human Development Report (HDR) stated that for the past 15 years there has been a low quantity of development aid and less relationship with the targeted development. Moe (2008) found that foreign development assistance is targeted to support socio-economic development and has significant positive association with human development. So, readdressing the aid mechanism through extensive socio-economic programmes of the foreign development organisations, especially non-government, is an urgent priority of the recipient countries. The quality and effectiveness of development organisations will have a direct impact on the success on those development programmes, particularly on education sector.

A few studies conducted on the educational development, mostly in a top-down fashion where NGOs' own target and efficacy for their donor organisations are highlighted and beneficiaries' demand is neglected. On the other hand, NGOs' aid allocation for poverty alleviation as the means of economic development is extremely scarce (Dreher, Mölders, & Nunnenkamp, 2010), initiated for other than socio-economic purposes (Alesina & Dollar, 2000; Katayama, 2007), consequently, brought insignificant development in Bangladesh (Fruttero & Gauri, 2005). There has been a lack of empirical studies of the effectiveness of development aids, through non-governmental organisations (NGOs), and its impacts on educational development in Bangladesh, and not much is known about it. Training is the intermediary means to materialise the NGO intervention in the implementation of development programmes among their beneficiaries. In order to improve development programmes of NGOs, this study conducts an empirical investigation into the relationship between the select-NGOs' training programmes and educational development of NGO beneficiaries. The findings and results of this study will benefit major key stakeholders, including donors, and NGO decision-makers of the recipient countries who play a major role in the development process. Human resources (HR) managers and NGO

<sup>&</sup>lt;sup>1</sup> Department of Business Administration, IIUC, Bangladesh

<sup>&</sup>lt;sup>2</sup> School of Management, USM, Malaysia

<sup>&</sup>lt;sup>3</sup> School of Business Innovation and Technopreneurship, Universiti Malaysia Perlis (Unimap), Malaysia

decision-makers in Bangladesh have been challenged to report the programme effectiveness of training. This article explores Bangladeshi NGO experiences from a cross-sectional perspective to understand better training evaluation issues towards educational development of their beneficiaries.

#### 2. Literature Review

## 2.1 Development and Socio-economic Development

In measuring the socio-economic development, a number of indicators prevailed in development studies which constitute influence on the development of NGO beneficiaries. *Beneficiaries* refer to the clients who are benefited by the socio-economic and training programmes of NGOs. Davies (1998) defined *development* as outside intervention or "aided" development, and the definition of *socio-economic development* is given by Jaffee as the "ability to produce an adequate and growing supply of goods and services productively and efficiently, to accumulate capital, and to distribute the fruits of production in a relatively equitable manner (Jaffee, 1998)". International bodies have been set up some components or categories of development indicators to promote. WHO promotes health, FAO agriculture, UNIDO industry, UNESCO education, and UNCTAD promotes trade. Consequently, a number of indicators have been taken into account by studies in common for socio-economic development such as income, nutrition, health, education, and housing (McGranahan, Richard-Proust, Sovani, & Subramanian, 1972; Rao, 1976; FAO, 1988).

## 2.2 Educational Development

Kofi Annan, the former UN Secretary General, depicted 'education' as a human right having huge transformation power bases in freedom, democracy, and sustainable human development (UNICEF, 1999). In other view, Katayama also regards education as human right (Katayama, 2007). In this study, the authors take the former perspective of education into consideration. In Bangladesh, education plays a significant role towards the socio-economic development of their people. Denison empirically studied the economic growth of U.S. ranging from 1929 to 1957 in order to examine the role of education as determinants. The findings suggested that during this period America's economic growth could not be explained by production factors in traditional economics (i.e., physical capital, labour, and land), rather explained by the advance of knowledge through education or human capital (Denison, 1962). In a subsequent research finding, Denison expressed that during 1950 to 1962, 23% of America's economic growth was to the improvement of education among labour forces (Denison, 1967). In a similar way, the economic growth in East Asia was for the improvement of the educational level of the labour force, and the growth of capital rather than technological progress (Krugman, 1994).

Using the rate of return analysis of education, the study also investigated the role of education pertaining to the economic growth at *micro* level. The notion of human capital developed by the renowned economists such as Schultz, Becker, Mincer, and Rees contributed to the evolution of the rate of return analysis of education. Schultz's conceptualisation of private benefit of education in economic growth employed the cost of education as well as forgone earnings, individual's income and the social benefit of education (Schultz, 1963, pp. 5-11) also supported by Rees as Schultz's concept of private and social benefits of education is significant for developing countries (Rees, 1979). In the following year, based on Schultz's conceptualisation, Becker established the theoretical framework of rate of return analysis of education in the form of private rate and social rate (Becker, 1964). In a similar vein, Psacharopoulos (1994) opined that the number one investment priority in developing countries is primary education and investment in women's education is more profitable than that for men. Hence, educational development is the key to the socio-economic indication of NGO beneficiaries in Bangladesh, one of the representative countries of developing world.

#### 2.3 Health

Almost half a century ago, WHO defined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (Breslow, 1972; WHO, 2006; Jadad & O'Grady, 2008). Health and poverty are closely correlated as illness can cause poverty through a downward helix of income loss, treatment costs and asset diminution. This constitutes the single largest factor associated with descending households (Ravaillion, 1998; Sen, 2003). To what extent health expenditures can affect poverty, is well manifested into large and unpredictable health payments. This brings significant financial risk which, in turn, results in impoverishment also related to the triangle of poverty (Xu et al., 2003). Besides, the interconnected health and poverty in regard to transitory poverty, health hazards can also cause chronic poverty if illness impacts the capacity of households to escape poverty (Wagstaff, 2002). So, the above factors limit the educational attachment of NGO clients.

#### 2.4 Micro-credit

Micro-Credit Summit Campaign, in 2002, reported that nearly 23,000 registered NGOs (Haque, 2002) have been operating particularly aiming to alleviation of rural poverty (Ullah & Routray, 2007) as the means of socio-economic development in Bangladesh. Among the registered NGOs, 92 per cent are involved in micro-credit services of which 90% of small NGOs and 96% are big NGOs (Gauri & Galef, 2005).

Hulme and Moore opined that the evidence of social impact of micro-credit in Bangladesh is partial and contested, but on balance, suggests that micro-credit have positive social and economic effects (Hulme, 2000). This is also supported by a strand of researches on impact assessment study on micro-credit (Pitt, Khandker, Chowdhury, & Millimet, 2003; Rahman, 1996; as cited in Ahmed, 2009). Khandaker noted that micro-credit programmes promote investment in human capital and raise awareness of reproductive health issues; he also found positive economic impact on clients in terms of income growth and reduced vulnerability (Khandker, 1999).

Zaman, Hassan, Annamalai, Nagavalli, Appasamy Irajen et al. (2005) demonstrated that the share of aid to NGOs as a portion of total aid to Bangladesh has increased from 14.4% in the early 1990s to 24.5% in the years between 1996 and 2004. It is regretful that only about 10-25 percent of donor funds actually reach the poorest (Yunus, 1999; as cited in Ahmed, 2009) and the big NGOs reach only 10-20 per cent of the landless households (Zaman, 1996), therefore, the impact of micro-credit programmes on the socio-economic development is partial and contested (Hulme, 2000).

#### 2.5 Training

A Chinese proverb says "To plan one year, saw seed; to plan ten years, plant trees; and to plan 100 years, develop human resources". So, development of human capital through training is not a short-term strategy rather it should be addressed from the long-term perspective (Dhakal & Nawaz, 2009). The definition of training does not change so much from one researcher to another. Noe (2008) defined training as planned effort by a company to facilitate employees' learning of job competencies. These competencies include knowledge, skills and attitude (behaviour) that are critical for organisational success.

Arend, examining one of the biggest South African NGOs, opined that the organisation has focused predominantly on meeting the demands of its donors, and subsequently has had limited capacity to meet its growing needs in regard to human resources and organisational development (Arend, 2008). In a study on 20 development NGOs in Bangladesh, Huda, Karim, & Ahmed (2007) found NGOs were facing shortage of qualified candidates, inadequate qualified female candidate, and poor academic background of applicants in the suburban and rural areas. More significantly, lack of training infrastructure and paucity of training need analysis which is directly concerned with the socio-economic and human resource development of their beneficiaries.

Human resource development is, still, an emerging area of research in the third world countries and has not received proper attention in Bangladesh (Mahmood, 2004). Surprisingly, an inadequate number of studies have been conducted in this area so far in Bangladesh context (Mahmood, 2004; Absar & Mahmood, 2011), however, due attention on training and development is absent. This still remains an unearthed area for research. Moreover, few researches conducted by local researchers which were not supported theoretically as well as empirically.

#### 2.6 Kirkpatrick's Four-level Taxonomy

Kirkpatrick's classic four-level training evaluation model has been examined often (Alliger & Janak, 1989; Holton, 2005; McLean, 2005). Kirkpatrick's (1998) four levels include: (1) Level I-reaction: measures how learners feel about learning/training; (2) Level II-learning: evaluates what was learned and retained from the learning experience; (3) Level III-behaviour/application: evaluates the degree to which learners apply what was learned on the job; and (4) Level IV-results: evaluates the impact that transfer of learning has on the business. Krein and Weldon (1994) suggested that the four levels attempt to answer the following questions: (1) Level1: how the participants feel about the training; (2) Level 2: what the participants acquired from the training; (3) Level 3: how much participants applied what they have learnt? and (4) Level 4: how much company gains from this exercise (Khan & Ali, 2014).

Though, there is three-dimensional criticism exists in the literature (Alliger, Tannenbaum, Bennett, Traver, & Shotland, 1997; McLean, 2005), Kirkpatrick's model of training evaluation has had widespread and enduring popularity because of its simplicity and its ability to help people think about training evaluation criteria (Alliger & Janak, 1989). Training evaluation has been an important subject in management studies and research as it is related to the issues of efficiency, effectiveness, and impact (Rossi & Freeman, 1989; Kirkpatrick, 2005; Giangreco, Carugati, & Sebastiano, 2010).

Based on the literature review, the authors propose a conceptual framework for studying beneficiaries' educational development throwing light on several variables of interest that would have impact on development NGOs of Bangladesh, and the variables that have not been extensively and comprehensively studied in any past research. This framework emphasises on the following predictor variables: health, education, micro-credit, and four-training dimensions to address the underlying research question leading to educational development for the socio-economic capacity building of NGO beneficiaries (Figure 1). In the way of addressing these research questions, the study examined the following research hypotheses which have been derived from components of the three constructs under study.

## 3. Hypotheses

- H1: The NGOs' socio-economic programmes (health, education, & micro-credit) significantly related to the beneficiaries' educational development;
- H1.1 The NGOs' health programme is positively related to the beneficiaries' education;
- H1.2 The NGOs' education programme is positively related to the beneficiaries' education;
- H1.3 The NGOs' micro-credit programme is negatively related to the beneficiaries' education;
- H2: The NGOs' training programmes (reaction, learning, behaviour, & result) significantly related to the beneficiaries' educational development;
- H2.1 The NGOs' training-reaction is positively related to the beneficiaries' education;
- H2.2 The NGOs' training-learning is positively related to the beneficiaries' education;
- H2.3 The NGOs' training-behaviour is positively related to the beneficiaries' education;
- H2.4 The NGOs' training-result is positively related to the beneficiaries' education.

## 4. Significance of the Study

This study is significant for the following reasons:

Contribution to the theory: Little is known about the relationship between NGOs' socio-economic and training programmes and their beneficiaries' educational development. Use of the Becker's human capital theory and Kirkpatrick's four-dimensional evaluation model of training to assess the NGOs' educational development will add value to development studies at the individual level of analysis, especially, in the NGO sector in Bangladesh. Additionally, this empirical study is among few to examine NGO-clients' educational advancement in a bottom-up fashion.

Contribution to practice: The study identifies linkages between their designed programmes and educational development. Through this study, such linkage may enables NGOs to reduce costs associated with need assessment for training and give emphasise more on shifting their focus from simply economic to comprehensive socio-economic aspects which, in turn, increase the effectiveness of their programmes.

#### 5. Theoretical Framework

The study uses two well-grounded theories to measure the relationship between socio-economic and training programmes and educational development: Becker's (1964) human capital theory, and Kirkpatrick's (1998) four-level taxonomy of training evaluation.

A theoretical framework used to ground, or anchor the study focusing on the relationship between NGOs' socio-economic and training programmes and educational development of their beneficiaries in Bangladesh. The study is divided into three categories of variables: NGOs' socio-economic and training variables and beneficiaries' educational development.

#### 6. Methods

The quantitative approach utilized survey methodology with associational correlational-descriptive, field-based, and cross-sectional study. This research, based on the purpose, is an applied or action research which is exploratory in nature, since, very few studies have been conducted in this arena. So, the motivation is to assess the NGOs' socio-economic and training programmes which will impact socio-economic capacity building of their clients through education.

## 6.1 Study Variables

The study examined beneficiaries' education as consequence of NGOs' socio-economic and training programmes. Hence, beneficiaries' education was the dependent variable under investigation. The three NGOs'

socio-economic programmes (underlined by Becker's human capital theory) and training programmes (conceptualised in Kirkpatrick's four-level taxonomy-reaction, learning, behaviour, and result) were considered as possible predictors, hence, independent variables of beneficiaries' educational advancement.

## 6.2 Subjects and Site

The target population for this study included three leading NGO beneficiaries who were provided training and socio-economic programmes. This study has excluded the NGO-respondents with the following characteristics: (1) respondents from two large development organisations: Grameen Bank and ASA (The Association of Social Advancement); (2) the respondents who got the training less than two months and more than two years; and (3) respondents who were not benefited through other socio-economic programmes such as health, education, and micro-credit at least between one year and two years for this analysis. The restricted probability multi-stage stratified sampling (Sekaran, 2003) was chosen as the sampling design because the 'NGO beneficiaries' had to fulfil certain criteria in order to qualify as respondents. The focus of this study was only three large NGOs who fulfil the criteria covering socio-economic and training programmes. Grameen Bank and ASA were dropped from the list of preference, since, Grameen Bank is neither NGO nor traditional bank (Nabi, Alam, Jahur, & Quadir, 1997, p. 5); on the other hand, ASA also similar to Grameen Bank operating only micro-credit having no training programmes for which did not fall within the purview of the research interest of this study.

The three development NGOs of Bangladesh were studied in this research. These three leading NGOs were established in the years 1972, 1976, and 1958 having operations in 64, 64, and 36 (out of 68 administrative districts of the country) districts, respectively. They also have staff strength of 46,674 (NGO A) and 4,240 (NGO C) in the executive and non-executive level. NGO B also has activities in most of the districts and in 24,213 villages and 2,110 slums throughout the country. The rationale of selecting these leading NGOs is based on their coverage capacity, maturity of programmes and huge number of clients involved in multi-dimensional non-profit activities.

#### 6.3 Procedure

The study is based on a self-report survey design, using cross-sectional data, acquired through questionnaires. The survey questionnaires were distributed among select NGO beneficiaries through field workers of randomly selected sample VOs (village organisation, a team consisting of 20-30 female members) under three districts (administrative units of the country) employing multi-stages stratified sampling method. Babbie and Rahman report that to carry out a pragmatic investigation into a large population like NGO sector in Bangladesh-the 'multi-stages stratified sampling' method is suitable and mostly used for survey among NGO beneficiaries (Babbie, 1995; Rahman, 2005). A total of 400 questionnaires were distributed among the sample areas. A total of 318 completed questionnaires were received, and after removing the ones with missing data, 300 usable questionnaires emerged (75% response rate).

## 6.4 Measures

The data used for this study were obtained through Kirkpatrick's (1998) four dimensional model of training evaluation underlying Becker's (1964) human capital theory. Demographic information items were also included for sample description. The following measures have been used to conduct the survey.

- The three dimensions of socio-economic programmes are represented by 16 items derived from Jahur, Absar, and Sultana (2002) consisting of four adopted, five adapted, and seven constructed. Five items assess health, four items assess education, and seven items assess micro-credit, respectively.
- The four dimensions of training evaluation is represented by 28 items derived from Barker (1997), Barcala, Martin, and Gutierrez (2000), Wilson (2000), Pau (2001), Price (2001), Tai (2006), and Al-Eisa, Furayyan, and Alhemoud (2009), consisting of three adopted, 20 adapted, and five constructed to measure NGOs' training programmes. 11 items assess training-reaction, seven items assess training-learning, five items assess training-behaviour, and five items assess training-result.
- Beneficiaries' educational development is represented by a four-item scale (adapted) derived from McGranahan, et al., (1972), Rao (1976), and FAO (1988) that measures the NGO-beneficiaries' educational status.
- Seven demographic items-genders, age, marital status, number of children, education, occupation, and experience with NGO activities-were included in the survey to facilitate the interpretation of the results.

## 6.5 Unit of Analysis

Nardi (2003, p. 98) defines unit of analysis as 'the element about which you are observing and collecting data,

such as a person responding to a questionnaire, a school, an editorial, or a local business'. The study variables measured at the individual level, as unit of analysis which is integral to research design. Each individual and each subject treated as an individual source (Sekaran, 2010).

## 6.6 Statistical Analysis

Three types of statistical analysis were conducted for this study using SPSS 19.0. First, factor analysis was conducted to determine construct validity, fit, and appropriateness of the instrument (Fraenkel & Wallen, 2000). Second, for three instruments, internal reliability analysis using Cronbach's alpha was used to determine the reliability of all scales (Cronbach & Furby, 1970). Third and finally, multiple regression analysis was conducted to examine the relationship between predictor and criterion variables as highlighted in the research framework to test the research hypotheses. More specifically, multiple regression analysis was employed to identify the relationship between NGOs' socio-economic and training dimensions (independent variables) and beneficiaries' educational development (dependent variables).

#### 7. Results

## 7.1 Demographic Profile of the Respondents

The study has received 300 sets of completed questionnaires of which about 99 per cent are dominantly female and married. About 40.7 per cent respondents were aged between 26 and 35 years old and 68.3 per cent had three and above number of children. Most of the respondents were uneducated (59 per cent), and 34.3 per cent of the respondents were below secondary level. Overall, there were 46.3 per cent of the respondents are attached to NGO activities for less than five years category and 47 per cent felt in the range of 11 to 15 years. In terms of occupation, 50.7 per cent were attached to small business, 32 per cent were from agriculture sector while only 9.3 per cent were self-employed.

## 7.2 Factor Analyses of Study Variables

Principal component factor analyses using the Varimax rotation option were employed to conduct factor analysis to determine the basic structure (Hair, Black, Babin, & Anderson, 2010) as well as dimensionality (Sekeran & Bougie, 2010) of the study variables. NGOs' three dimensional socio-economic items, four-component training evaluation items, and beneficiaries' education level items were factor analysed using Varimax rotation.

The factor analysis of first construct of independent variables (health, education, and micro-credit) is presented as Table 1. A three-factor solution emerged dropping three items (out of 16) explaining 57.60 per cent of the total variance in three socio-economic dimensions. The KMO measure of sampling adequacy was .728 indicating sufficient inter-correlations while the Bartlett's Test of Sphericity was significant (Chi square = 1235.348, p < 0.01).

Table 1. Rotated factor and factor loadings for three socio-economic programmes

Easters of social accompanie musquemmes	Compon	Components		
Factors of socio-economic programmes	1	2	3	
micro credit1	.540	.193	.252	
micro credit3	.646	.000	091	
micro credit4	.698	090	014	
micro credit5	.824	.020	.227	
micro credit7	.882	074	.015	
education1	026	.813	.058	
education2	050	.815	061	
education3	.046	.726	.255	
education4	.018	.673	.203	
health1	062	.018	.777	
health3	.064	.088	.810	
health4	.028	.221	.689	
health5	.191	.095	.624	
Percentage of variance			57.60	
KMO			.728	
Approximate $X^2$			235.35***	

Note: \*\*\* p < 0.01

The second construct of independent variables (reaction, learning, behaviour, and result) is presented as Table 2. A four-factor solution emerged dropping seven items (out of 28) explaining 72.18 per cent of the total variance in four training dimensions. The KMO measure of sampling adequacy was .808 indicating sufficient inter-correlations while the Bartlett's Test of Sphericity was significant (Chi square = 4702.560, p < 0.01).

The result of the analysis on the dependent variable (beneficiaries' education) is shown as Table 3. All items loaded on to one factor (dropping one item) where the total variance explained was 71.294 per cent. The KMO measure of sampling adequacy was .627 indicating sufficient inter-correlations while the Bartlett's Test of Sphericity was significant (Chi square = 2424.815, p < 0.01).

Table 2. Rotated factor and factor loadings for four training dimensions

There is a second of the secon	Factor			
Items	1	2	3	4
reaction1	.786	.168	.149	.072
reaction2	.905	.117	014	.087
reaction3	.862	.101	.014	.059
reaction5	.710	.081	007	.035
reaction6	.714	.053	006	.034
reaction7	.859	.169	.105	.070
reaction11	.752	.133	.016	.088
result1	.171	.840	002	.015
result2	.063	.874	029	102
result3	.108	.696	084	021
result4	.185	.887	031	026
result5	.171	.724	.153	.040
behaviour1	.242	.096	.609	.085
behaviour2	041	.050	.844	029
behaviour3	006	036	.828	081
behaviour4	.125	011	.564	.134
behaviour5	010	029	.930	.005
learning1	.064	.023	.065	.849
learning3	.159	083	.079	.797
learning4	.008	050	.010	.904
learning7	.074	.016	056	.664
Percentage of variance			72.179	
KMO			.808	
Approximate $X^2$			4702.56***	

Note: \*\*\* p < 0.01

Table 3. Factor loadings for beneficiaries' educational development

T4	Factor	
Items	Beneficiaries' education	
Education1	.938	
Education2	.939	
Education3	.606	
Percentage of variance	71.294	
KMO	.627	
Approximate $X^2$	2424.815***	

Note: \*\*\* p < 0.01

#### 7.3 Reliability Analysis

Next to factor analysis reliability is the second criterion that ensures goodness of measures. The study used Cronbach's alpha to conduct reliability analysis in order to determine the scale reliability (Table 4). The reliability coefficients for NGOs' socio-economic programmes-health, 0.73; education, 0.77; micro-credit, 0.78, training programmes variables-reaction, 0.92; learning, 0.82; behaviour, 0.82, result, 0.88, and education of beneficiaries, 0.79; respectively, which exceed Nunnally's (1978) recommended threshold of 0.70. Hence, the contention of the instruments used in this survey was both reliable, and valid as demonstrated by the factor analyses results.

Table 4. Reliability coefficient for model variables

Variables	Number of Items	Items Dropped	Chronbach's Alpha
Socio-Economic Programmes	16	3	
Health	5	1	.73
Education	4		.77
Micro-credit	7	2	.78
Training Programmes	28	7	
Reaction	11	4	.92
Learning	7	3	.82
Behaviour	5		.82
Result	5		.88
Beneficiaries' education	4	1	.79

#### 7.4 Regression Analysis

Socio-economic and training programmes towards education

Table 5 presented the results of the regression analysis, showed a significant positive relationship between beneficiaries' educational development and NGOs' education programme ( $\beta$  = .165, p<.01), training-behaviour ( $\beta$  = 0.169, p<.01), and training-learning ( $\beta$  = 0.117, p<.05). The relationship between beneficiaries' education level and health ( $\beta$  = 0.041), micro-credit ( $\beta$  = 0.055) and training-result ( $\beta$  = 0.024), although positive, are not significant, while training-reaction is negatively associated with NGOs' educational development ( $\beta$  =-0.030).

Table 5. Regression for beneficiaries' educational development

Independent Variables	Beneficiaries' Educational Development	
Health	.041	
Education	.165***	
Micro-credit	.055	
Training-Reaction	-0.030	
Training-Learning	.117**	
Training-Behaviour	.169***	
Training-Result	.024	
F-Value	4.682	
$R^2$	.101	
Adjusted R <sup>2</sup>	.080	

Note: \*\*\*p<.01, \*\*p<.05, \*p<.10

The regression results indicate that  $\beta$  value of the regression for behaviour dimension (training programme) was greater ( $\beta$  = 0.169, p<.01) than education ( $\beta$  = .165, p<.01) and learning ( $\beta$  = 0.117, p<.05). So, NGOs' education and training programmes (behaviour and learning) are the best predictors for beneficiaries' education (dependent variable). Further, although the predictors are positively significant, together they explain only 10.0 per cent of

the variance in beneficiaries' educational development, but these predictor variables make a unique contribution to explaining the dependent variable. Hence, hypotheses H1.2, H2.2 and H2.3 are accepted.

#### 8. Discussion

The analytical results of the present research have shown that NGOs' education, learning, and behaviour have positively significant impact on NGO beneficiaries' perceptions regarding their educational development (Table 6). This result is supported by several previous studies (Hallak, 1990; Schiere, 2008), also through the lens of human capital theory (Schultz, 1963; Becker, 1964). Human capital theory suggests that expenditure on education and training in order to impart knowledge and developing skills increases the individual's (here beneficiaries) lifetime earnings and productivity with a view to achieving socio-economic capacity building in the society.

Contrarily, the present research has shown the insignificant relationship between health and beneficiaries' education which is opposite to the Becker's (1964) theory. Boissiere, et al. (1985) has validated the human capital theory using education data, where the researchers found that World Bank inculcated human capital theory in their education policy formulation for the developing countries. The descriptive analyses of beneficiaries' education may give explanation that shows quite low means and standard deviations [2.73  $\pm$  0.81] compare to other dependent variables. It might be due to the insufficient presence of health-related education initiatives of NGOs. The insignificant result confirms the beneficiaries' perception such as "most of the adults in my family are able to read and write" not supported by their profile which is represented by 59% uneducated beneficiaries.

Likewise, the study result has shown insignificant association between micro-credit and beneficiaries' education. Nevertheless, the study finding was expected and supported by several previous studies where the impact of micro-credit programme of Bangladeshi NGOs was focused as partial and contested (Hulme, 2000; Ullah & Routray, 2007; Ahmed, 2009). Though, the insignificant finding is opposite to Becker's (1964) human capital theory, several research findings have found influential roles of micro-credit on beneficiaries' education development such as children schooling, school enrolment (BIDS), girls' schooling (Pitt et al., 2003), and school enrolment rate and attitude to education.

The insignificant relationship between NGOs' first and fourth training dimension (reaction and result) and beneficiaries' educational development can be attributed to a number of reasons. Firstly, NGOs' lack of appropriate participants as most of the time the same beneficiaries were chosen in the capacity of being the team leader of VO (village organisation). Secondly, lack of training need analysis and inappropriate programme manifested in the first phase of training (reaction), and finally brought insignificant outcome to the last phase (result). McEvoy (1997) stated that trainees often tend to complete their training in a state of excitement, such that their immediate favourable reaction is much higher than feedback reactions measured later. In a similar vein, Dixon (1990) also concluded that good reactions do not necessarily transform to later phase-good learning. This justification affirmed by the authors of this study during data collection as well as by a number of other study findings (Brown & Bessant, 2003; Dhakal & Newaz, 2009).

Dhakal and Newaz (2009), in their cross national study on Bangladesh and Nepal, found inappropriate and insufficient human capital development programme in the line with Brown and Bessant's (2003) study wherein supportive, flexible, and multi-skilled workforce is sought. Otherwise, the NGOs cannot retain their critical staff for imparting training and knowledge to their beneficiaries (Ahmad, 2002; Ramlall, 2004). Consequently, lead to the shortage of qualified staff, inadequate qualified female fieldworkers needed in the suburban and rural areas will remain to continue (Huda et al., 2007), which will, in turn, bring their objective to achieve educational development of their beneficiaries into question.

## 9. Future Research

There is still dearth of research carried out on the dimensions of educational development. In order to design future research directions, a number of recommendations can be made.

It would be beneficial to conduct a longitudinal study in different geographical locations and cultures with more number of NGOs permitting both causal assessment and results generalization. As argued by O'Driscoll, Brough, and Kalliath (2004), the use of a longitudinal approach would essentially be able to determine whether the effects of the predictor variables persist over time.

In general, it is more acceptable if the R-square value in multiple regression analysis is higher. However, in the present study, the value for R-square in the regression is only 10.0 per cent. This can be explained that educational development can be explained by the other predictors such as human capability, network,

socio-organisational, and socio-political influence as well as those arising from the contextual factors such as notion of equality, and empowerment of women in household decision-making may be equally important in predicting educational development of NGO beneficiaries.

The study may help in shaping NGO programmes that managers can take necessary actions relating to occupational skill and income generating training development, which in turn, contribute to human capital development.

## 10. Conclusion

Interpreting the relationship between NGOs' socio-economic and training programmes and beneficiaries' educational development is a critical factor in assessing the performance of NGO activities with their ambitious missions and visions. Development is still perceived as a transfer of resources. Based on the conceptual framework, the researcher addressed the research questions through examining the nature of and reasons for the observed disjunction between what NGOs say through their programmes and what they are keen to materialize. The study is underpinned by the study findings that bring insight of socio-economic development of the NGO beneficiaries, particularly the development NGOs in Bangladesh. The findings extend the existing body of knowledge examining the effects of socio-economic and training dimensions towards educational development of NGO clients. The present research, moreover, has empirically supported the human capital theory to be applicable in the context of Bangladesh (Becker, 1964) in explaining the relationships between predictor and outcome variables. In essence, the results affirm that social and some training variables have significant relationships with socio-economic development indicator. Specifically, the NGO managers who concentrate more on minimizing the disjunction between socio-economic and training programmes and education as moral endeavor, the development of their beneficiaries will be high, otherwise, the real socio-economic development of their beneficiaries believed to be loomed large.

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### Rapid Urbanization-Its Impact on Sustainable Development: A Case Study of Udon Thani, Thailand

Thanadorn Phuttharak<sup>1</sup> & Apisak Dhiravisit<sup>2</sup>

Correspondence: Thanadorn Phuttharak, Development Science, Faculty of Humanities and Social Sciences, Khonkaen University, Thailand. E-mail: thanadorn4245@gmail.com

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#### **Abstract**

This article focused on the pattern of land-use change based on urbanization and the impacts of land-use change on the local community in Udon Thani. Udon Thani was selected as a case study in this article because the rapid growth rate of the city was higher than that of other cities in decades. The study was conducted by satellite images analysis in order to compare the Udon Thani municipality and the suburban areas from 1989-2014. Group discussion was used with representatives from local communities, government sectors, and private sectors. Results revealed that the urbanization process has been settled based on both push and pull factors. Push factors consisted of the expectation of rural people in employment and income. Pull factors consisted of the expansion of the industrial sector, particularly in service and retail sectors, which affected the land-use change in the Central Business District (CBD) and surrounding communities. In addition, impacts of land-use changes on the community were found from several perspectives, including the economic, social, and environmental perspectives.

Keywords: urbanization, land-use changes, sustainable cities, Udon Thani

#### 1. Introduction

Development approach in past decades primarily focused on the growth of economic which was centralized and generated by government and private sector based on capitalism. Infrastructural development would be priority that was applied on modernization process which focused only on quantitative development. Therefore, Western countries or developed countries got widely involve in generating patterns of development, and passed on their development patterns to the developing country. This phenomenon had a critical role in developing world society and the capitalism. So the developing country seems to run development pattern as the dependency development which was consequent on many problems in developing country.

Urbanization is a phenomenon that was introduced at the end of World War II. Urbanization has become a key factor that influences city development in major Asian cities. City development has developed from urbanization in various perspectives, especially economic and industrial perspectives, which were focused on. The development resulted in rapid economic and industrial growth, as the city was interested in many investment plans from national and international investors. However, the urbanization-based development also impacted the city. Urbanization currently is generating problems for the city. People from various places migrate to seek work and a better life in major cities more and more. Social and environmental problems also were discussed. City administrators cannot manage city problems that are impacting the city rapidly. Some call this phenomenon an "over urbanization."

The growth of urbanization caused a new type of production in the modern economy, which generated a pull factor for surplus labor in the agricultural sector and transformed cities into an industrial labor sector. Although urban development and economic growth in Asian countries were different from that in European countries or the United States in terms of the balance between the rural and urban populations and economic growth, the phenomenon of migration from rural to urban areas was still occurring due to high levels of productivity in the city, which was higher than in the rural areas. High levels of productivity became a pull factor, which resulted in an increasing population in the urban areas of Asia as well as within developing countries. In addition, poverty in

<sup>&</sup>lt;sup>1</sup> Development Science, Faculty of Humanities and Social Sciences, Khonkaen University, Thailand

<sup>&</sup>lt;sup>2</sup> Program in Faculty of Humanities and Social Sciences, KhonKaen University, Thailand

the rural areas, the invasion of capitalism into rural areas, and rural living, which was infiltrated by consumerism, forced rural people to change their living patterns; for instance, the land was transferred to capitalists for industrial activities. These were the pull factors, which accelerated migration to the city. Though it was thought that the movement of people would lead to the development of the industrial sector, it actually caused numerous infrastructural, social, and environmental problems.

Urbanization and the growth of the modern city based on capitalism are important issues that city administrators must recognize, especially within developing countries, including Thailand. Adoption of the National Economic and Social Development Plan, which was based on Western countries' approach, affected a major change in the Thai economy and society. One of the most significant changes to Thailand's economy was a greater reliance upon industrial manufacturing as opposed to agricultural production. This made the country's urban areas change so rapidly that they were unable to control worrisome issues, such as the increase of the population, pollution, and so on. From 1960-1970, small-sized factories settled in Bangkok. This caused a massive migration from rural areas across the region, especially from the northeastern region. In 1970, the proportion of the population living in cities increased rapidly from 17% to 21% (Suthiprapa, Mithanon, Wattana, & Taesrikut, 2008). In 1980, the growth rate of Bangkok, which was a type of a primate city, was higher than in Chiangmai, which was considered the second largest city in Thailand by more than 50 times. The city became over-urbanized similar to other cities in Southeast Asia, such as Jakarta, Manila, and Ho Chi Minh City, where the economic base and the city's infrastructure could not support the increase in population.

The Thai government later adopted a policy that focused on distributing growth among regional cities by applying the "growth poles" theory to develop the regional city as the core of economic growth. In Thailand, Chiang Mai and Khon Kaen were the provinces selected for development into regional cities in order to facilitate the growth of industry, as well as to reduce the congestion and pollution of the main city (i.e., primate cities, such as Bangkok). This policy was an attempt by the government to solve problems in the primate cities by distributing growth to other areas throughout the country. Although this policy was fine on paper, it led to the creation of new problems regarding the sustainability of secondary cities in both urban and rural areas, which reflects the inability of the state to impose regulations that make them more sustainable (Glassman & Sneddon, 2003).

Udon Thani, which is located in northeastern Thailand, is a city that is growing and expanding rapidly. The advantage of Udon Thani's location has made it the hub of a region that is filled with regional conveniences, such as a transportation route that links the central and northeast region and international boundaries. Udon Thani has become the third highest economic growth area in the northeastern region. Though Udon Thani is continuously growing, it is facing more and more problems inherent to large cities, similar to other regional cities in Thailand where urban areas have expanded to agricultural areas and have linked with areas of other local municipalities. The city, then, is not only limit by administrative boundaries, but also covers the people who are living outside its administrative boundary but are still involved in urban activities, such as commuters who go to work in urban areas in the morning and return home in the evening to areas outside the city. This pattern of living reflects a city system in the modern world and an urban boundary that expands more to local areas. In addition, city expansion also has an unavoidably complex relationship with the locals in terms of economic, social, and environmental perspectives. The old-fashioned administrative boundary cannot cover all of the city system. The limitation of local government in operation, lack of development knowledge, and the lack of problem solving are also the conditions that result in inefficient urban development.

According to the development that focuses more on industrial activity and is a cause of rapid growth of the city, it is necessary to understand a concept of urbanization and sustainable development in 2 ways. The first one is to reach an understanding and study the urbanization. It is important to understand the connection between city systems including: 1) central city, 2) cities around the principle city plan, and 3) cities influenced by the central city. The study would be done by systematic approach to understand issues about impacts of city change in economic, social, and environmental perspectives. The second one is to understand the relationship and participation of city policy issues The city policy issues can be divided into 2 parts, which are 1) the structure of city policy issues including regulation, law, social norm, and organization; 2) agencies in policy issues including government (such as central government and local government), private sector (such as local entrepreneurs and large-size entrepreneurs), and public sector (such as community, academics, and NGOs).

The urbanization phenomenon in Udon Thani was driven by at least two factors: (1) the land-use change, and (2) the increase of population. Urbanization was a direct driver that caused changes in the ecosystem and led, in part, to climate change-the rapid change of the ecosystem that has been caused by humans who seek a particular lifestyle, especially following the industrial era. Humans have caused numerous changes to nature. The change

in land use has had a direct influence on ecosystem processes (Nelson et al., 2006).

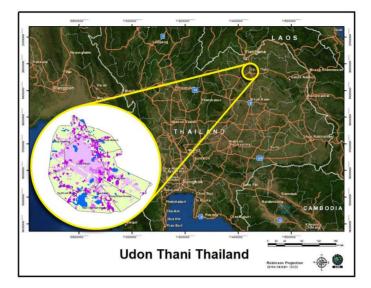


Figure 1. An expansion of regional cities in the northeastern region of Thailand

This study attempts to reveal patterns of urban development in Udon Thani city that are now expanding rapidly and investigates impacts of city expansion on local community. Patterns and impacts of city expansion will become key conditions that lead to issue guidelines of developing the sustainable city in the future. In addition, city stakeholders who engage in Udon Thani's development will be key informants to reveal impacts of how the city is expanding rapidly. At the core of sustainability is the need to pay attention to negotiating conflicts and to create a way to be a sustainable city. Where democracy is stunted, decisions and actions that weaken sustainability are more likely to occur. (Eckstein & Throngmorton, 2003). In the agency, both local and urban areas are key factors that boost the development of Udon Thani through brainstorming and working together to regulate and issue suitable policies to bring sustainability to Udon Thani.

#### 2. Objectives

Investigate patterns and impacts of city expansion to local community in Udon Thani city

#### 3. Theoretical Framework

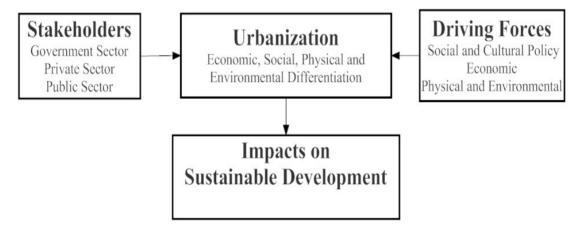


Figure 2. Theoretical Framework

The development of Udon Thani has introduced the long history of regional development, which has taken place because of the driving factors. Driving factors boosted the expansion of city scale and resulted in the strategic

importance in the Indo-China region. The driving factors included: 1) strategic area of the Indo-China Region, 2) capitalist policy, and 3) the establishment of ASEAN Economic Community (AEC). These factors generated the rapid growth of the urban area of Udon Thani until the present. Urban areas are now expanding beyond the administrative boundary to suburban areas. The expansion of the city has been based on economic conduction and relates to the living patterns of people in Udon Thani. Stakeholders who are involved in urban development in Udon Thani included local government, the economic sector, and the public sector and have tried to manage and run the city by using sustainable development perspectives such as policy, socio-cultural, economic, and environmental perspectives. Finally, the development that took place in urban areas of Udon Thani affected the city. The effects that took place were both positive and negative and led to the management guideline for the sustainable city.

#### 4. Methods

This study has been conducted in a qualitative approach to investigate patterns of city expansion and the impacts of city expansion and land-use changes on the community. Udon Thani was selected as a case study and included the Udon Thani municipality, the CBD, and suburban areas. Remote sensing and geographic information systems (GIS) were used to analyze patterns of city expansion to find the land-use changes within Udon Thani and suburban areas from 1989-2014. To find out the change of urban areas in Udon Thani, Satellite images from the LANSAT Satellite were introduced to identify the overview of land use within Udon Thani from 1984-2014. The identification was categorized into 4 groups including the Agricultural area, Scrub area, Urban area, and Water space. These 4 groups then would be analyzed with GIS data, economic data, social data, and population data to find the pattern of city expansion and the rate of area change between 1989-2014, which affected the city expansion in terms of geography, economics, social, and the environment.

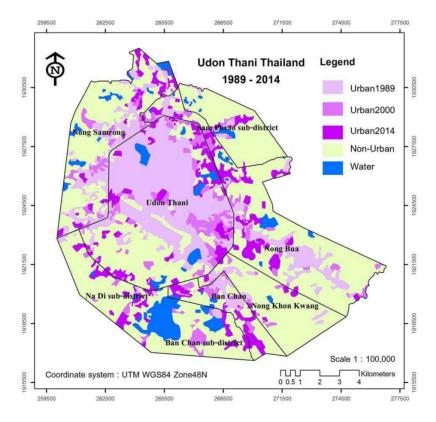


Figure 3. An overview of land-use change in Udon Thani from 1989-2014

City expansion in Udon Thani is another example which is based on Modernization theory. Modernization provided impacts on socio-economic change in local community where agricultural society has turned to be industrial or service society. This study tried to identify how did the expansion contribute to Udon Thani city in order to understand deeply details of the expansion pattern and the impacts of city expansion, in-depth interviews were used to collect data about the economic, social, and environment impacts, the participation of stakeholders,

especially in the public sector in the city planning in the local government, and the limitation of city administration. Key informants included 12 persons from the local government, the economic sector, and the public sector. In addition, group discussion was also used in this study. According to city problems and the complexity of city administration, it was necessary to get information from various groups of stakeholders to find out problems in local community, and listen responds from the locals about problems and development guideline. 50 representatives were selected from various parts of city stakeholder included communities, government agencies, and private sectors to participate in group discussion to discover the impacts of city expansion and land-use changes on the local community. The conclusions, which were generated by stakeholders. were analyzed carefully in order to create suitable guidelines for sustainable city development. The gathered data were examined by a triangulation process; that is, the data were evaluated from the perspectives of its source, duration, and location to find similarities and differences. After examination, if the data went in the same direction, it could be concluded that the data were reliable. In contrast, if the data diverged, they would be examined by a triangulation process that compared the data from the first and the second source with data from the third source. If two of the three were similar, they were considered credible. After the data examination was finished, the data were categorized according to the issue studied. After that, the data were analyzed and compared for each issue to find the conclusion. A content analysis approach was used to interpret the data, and an inductive conclusion was created. Finally, description analysis was used to present the data by describing the facts our research discovered based on the theoretical framework

#### 5. Results

#### 5.1 The Patterns of City Expansion and the Land-use Changes

According to Figure 2, the urban area in 1989 was 38.33 square kilometers. The urban area increased to 50.10 square kilometers in 2000 and up to 64.91 square kilometers in 2014. The agricultural area in 1989 was 105.11 square kilometers. The agricultural area decreased to 94.28 square kilometers in 2000 and was down to 82.94 square kilometers in 2014. The scrub area in 1989 was 9.13 square kilometers. The scrub area decreased to 7.87 square kilometers in 2000 and was down to 4.84 square kilometers in 2014. The water space in 1989 was 8.46 square kilometers. The water space in 2000 was 8.76 square kilometers and was 8.33 square kilometers in 2014. The figure shows that the urban area in the last couple decades increased while the agricultural area and scrub area decreased and turned into an urban area.

Table 1. Percentage of urban areas within local municipalities

	1989	2000	2014
Udon Thani Municipality	49.33	59.99	68.59
Nong Samrong Municipality	23.50	30.75	38.40
Nong Bua Municipality	17.62	23.34	36.16
Ban Chan Municipality	16.97	28.47	48.47
Nong Khonkwang Municipality	7.77	11.04	14.15
Na Di and Ban Chan Sub-district	2.16	7.86	17.56
Sam Phrao Sub-district	4.10	6.40	10.48

The study found that in 1989, the urban area of Udon Thani municipality was 49.33% and increased to 59.99% in 2000. The average growth rate was 0.969% each year. In addition, the urban area of Udon Thani municipality was 59.99% in 2000 and 68.59% in 2014. The average growth rate was 0.614%.

While considering municipalities in suburbans area from 1989-2000, it was found that the average growth rate of urban area increased 0.659% in Nong Samrong municipality, 0.520% in Nong Bua municipality, 1.045% in Ban Chan municipality, 0.297% in Nong Khonkwang municipality, 0.518% in Na Di and Ban Chan sub-district, and 0.209% in Sam Pharo sub-district. In addition, while considering municipalities in suburban area from 2000-2014, it was found that the average growth rate of urban area increased 0.546% in Nong Samrong municipality, 0.916% in Nong Bua municipality, 1.429% in Ban Chan municipality, 0.222% in Nong Khonkwang municipality, 0.592% in Na Di and Ban Chan Sub-district, and 0.291% in Sam Pharo sub-district.

According to the analysis of land-use change using GIS data, the growth rate of the urban area in Udon Thani municipality (CBD) has decreased, but the growth rate in the suburbs has increased. This situation of Udon Thani is similar to other cities in Southeast Asia, such as Bangkok, Manila, or Jakarta.

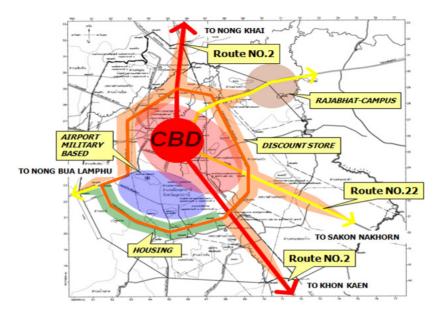


Figure 4. Direction of city growth (Prompakping et al., 2013)

The direction (red line) of Udon Thani growth related to the transportation routes, which include Highway No. 2 (Mittrapab Road) and Highway No. 22 (Nittayo Road: Udon Thani-Nakorn Phanom). Highway No. 2 passes through the Udon Thani municipality from the north to the south of the municipality (Nong Bua municipality and Ban Chan municipality), and Highway No. 22 passes through the east of the municipality. In addition, the Ring Road (east side) of Udon Thani is the location of major retail stores, the university, and a public park, which are key factors that attract the growth of the city in this direction. The west side of Ring Road is blocked by the airport and military area, so it is difficult to develop the city facilities in this direction.

The urbanization process of Udon Thani has developed on the Commercial Oriented, which is a conductor of city expansion similar to other major cities in Thailand. The expansion has occurred without a control base in the city planning, but the expansion is scattering all over the city (Upper Sprawl). This pattern of expansion affects the lack of infrastructure system in the community. Therefore, city planning is essential to guide the city expansion in the right direction and to solve city problems and move forward to be a sustainable city.

#### 5.2 The Impacts of City Expansion and the Land-use Changes on the Community

The rapid growth of urban areas has affected the community, particularly from a land-use perspective. The effects are both positive and negative depending on the awareness and perception of the community. Planning of community protection is necessary in order to tackle city problems. Conclusions about the impact of rapid growth in urban areas are presented during the group discussion as follows.

#### 5.2.1 Economic Impact

#### 1) Lands are used for commercial purposes in order to support economic growth.

The study found that Udon Thani is located in a strategic area of the Indo-China region. The economy of the city has grown continually since the US army settled the Air Force base in 1965. In the present, the industrial sector, large retail enterprises, or even tourism attractions are developed rapidly to support the economic growth of Udon Thani. These conditions result in lands within Udon Thani that have been utilized for commercial purposes more than the demands of the business stakeholders. Moreover, the central and local government policies, which boost Udon Thani, become the center of the logistics in the region, which is also a driving force behind stimulating the economy, e.g., the second bus station or the study on the possibility of extending Udon Thani International Airport, which requires a lot of space to develop.

#### 2) An increase in land price

Lands that are used intensively for commercial purposes and the development of infrastructure result in a higher land price. The study found that in 2004, the average price of land within Udon Thani city was 5-10 million Baht/acre, while in 2013 the average price was 20-40 million Baht/acre (Teerarattananukulchai, 2011). Land

prices within Udon Thani have increased due to the following conditions: (1) Udon Thani is a center of a trade area along the border of Thailand-Laos. This results in a large number of locals and tourists that visit Udon Thani and create expenses within the city. (2) Groups of investors came to Udon Thani to purchase the land. This is another condition that causes an increase in land prices. Investors have come to buy and sell land, especially in the area near the UD Town, which is on the east side of Udon Thani. In addition, the transportation projects, which are issued by the government, are also a driving factor of land price increase, such as the interstate highway (the motorway) between Bang Pa-In, Saraburi, Nakorn Ratchasima and the high-speed train project route between Nakorn Ratchasima and Nong Khai. The price of the land near the project settlements has been steadily increasing.

#### 5.2.2 Social Impact

#### 1) Decreasing residential area in the city

The land-use changes, which increase the land price, also affects people in urban areas as well. The residential area has been decreased and changed into the business area. People who have low incomes can no longer occupy the land in urban areas, so they choose to live in the suburban areas where the price of land is cheaper. Moreover, some choose to sell their own lands in urban areas for a high price and move to purchase new land in the suburban area. The study also found that the popular area for housing in Udon Thani is in the east of the city located along the bypass where there is more and more construction of modern villages and facilities in suburban communities. The west side, however, is the least-developed area of the city due to the limitations of the military zone.

#### 2) Less agricultural areas

Previously, Udon Thani municipality was filled with agricultural areas. Present use of land has caused a decrease in agricultural areas. The locals lost the land that they lived off of and were forced to work for the industrial or service sectors. This problem not only affects land owners but also some households that have rented land to live off of, which includes being able to collect natural resources for food. This problem might adversely affect the problem of food security in the urban area. However, food security issues might not affect urban areas directly, because those who live in urban areas easily access food as compared to those who live in rural areas. They easily access other food sources that are far away.

#### 3) Traffic problem

The land-use changes also affect traffic conditions in urban area. Due to the change in the land to that of commercial purposes, people increasingly moving to urban area to conduct business. They primarily have their own vehicles and usually take their vehicles to urban area. Now Udon Thani is dealing with traffic problems, particularly in the morning as people come to the city on their morning commute. Traffic problems not only occur at the center of the city, but the problem also expands to the suburbs, especially in the east of the city where the residential area is. In addition, people in suburban areas reflect that this traffic problem is quite difficult to solve. The problem usually occurs in the morning and evening in urban areas. The bypass can no longer solve the traffic problem in Udon Thani. However, the relevant authorities may try to solve the problem; for instance, in Nong Bua municipality, the suburban area closest to an urban area is generating a road construction project to reduce the traffic problems through the construction of the second bypass road in 2017.

#### 5.2.3 Environmental Impact

#### 1) Water pollution due to the fact that there is no drainage area or the drainage direction has changed

Lots of houses, building construction sites, and land reclamation areas are major problems that can lead to environmental problems in Udon Thani. The problem can be analyzed in two cases: (1) the encroachment of construction into natural drainage areas, such as canals or rice fields. These areas are blocked by house or development project construction. The problem has been generated due to an increasing population in the urban area. People who are living in urban areas need to reclaim their own land to avoid flooding or unexpected situations and start constructing the residencies without any concern of negative impact on neighborhoods. The construction projects have blocked drainage direction, which has resulted in water pollution. The blocked water cannot drain away quickly and creates stinky sewage that impacts the community. It has also become the breeding grounds of insects such as mosquitoes.

## 2) Land reclamation has caused problems for households due to the land being reclaimed for house construction.

Those who reclaim the land usually make the land higher than others in order to avoid flood problems. However,

the reclamation of land like this affects other households who had been living there before. The lands of others become an area for receiving rainfall and causes flooding. In addition, the reclamation has created a nuisance to the surrounding residents due to the falling of soil on the road, dust problems, or accidents while driving vehicles. Although the regulation for the reclamation of land is clearly generated, it does not solve the problem of land reclamation.

#### 3) Waste problem

Waste disposal management has been operated by the Udon Thani municipality. The municipality serves the city by offering trash trucks to deliver the waste to the landfill located outside of the city. However, the land-use changes in urban and suburban areas led to negative effects on the local community. First, there is more waste than the disposal process can handle. The amount of waste is increasing due to the growth of the city and the high population density. The department that is responsible for waste management cannot eliminate the waste effectively, which later causes a pollution problem for the community. In addition, the amount of waste affects the community near the landfill. The smelly, putrid waste around the community and households that are close to the waste pit may be at risk of health problems and a lower quality of life. Moreover, the quality of surface water and groundwater near the waste pit is poor.

#### 4) Pollution from industrial sector

According to the growth of Udon Thani, the growth leads to industrial investment in both urban and rural areas. One problem encountered in the industrial area concerns environment issues. The industrial sector produces a lot of waste each day, but the waste disposal management in industrial areas is quite limited, especially electronic waste, which is difficult to dispose of. This kind of waste will be delivered to another industrial site where there is an effective waste disposal system. A vast amount of electronic waste is produced each day, far too much for the disposal system to eliminate. Therefore, the agency responsible for waste delivery has to find another waste pit and wait to dispose of it later. Electronic waste is considered harmful to people's health. The preliminary solution instituted by the industrial sector is to install the waste disposal system in a major industrial factory. The output found that the disposal system runs smoothly, but there are some businesses that are not interested in the installation of the system. The local government should make the factories reduce their pollution.

#### 5.2.4 Policy Impact

#### 1) Duplicated practices between municipalities and conflict in local areas

Udon Thani is now a continuously growing base on the Commercial Oriented, which is a conductor of city expansion similar to other major cities in Thailand. The expansion has occurred without a control base on the city planning, and the expansion is scattering all over the city (Upper Sprawl). This expansion then affects the lack of infrastructure system in the community as well.

Related to the paragraph above, the city is facing problems similar to other regional cities in Thailand. Rapid expansion results in the uncontrolled expanding area not limited only by administrative boundary, but it also covers more than the administrative boundary to the way of life of people who live around the urban area. In addition, rapid expansion causes the duplication of operation between municipalities that are close to each other. When the operation of work duplicated, it would result in an inefficient development within areas and might cause conflicts between local areas. Therefore, it is important to identify operations of each municipality clearly and conform to other municipalities' plans to cooperate on the development plan.

#### 6. Conclusion and Discussion

Impacts from city expansion affect the local community rapidly. Although some impacts provide positive results to the community, such as an economic boost, there are many impacts that provide some negative results, especially from social and environmental perspectives, which could be serious problems in the future. People in the city, both in urban areas and in suburban areas, have to defend against negative impacts that move to their residential area and cooperate to develop their homes with the help from the government sector and private sector to creative a sustainable development plan.

The phenomenon of urbanization in major cities in Thailand and Southeast Asia has continued to grow over for decades. The phenomenon has caused many problems, and spread to both the CBD and suburban areas. In Udon Thani city as well, people have to deal with more difficulties in their way of life because the city has grown very rapidly and has a higher complexity of management. Udon Thani city nowadays has been developed based on the Commercial Oriented, which is a conductor of city expansion. City expanding based on Commercial Oriented has occurred without a control by public agencies, but the expansion is scattering all over the city (Upper Sprawl). Private sector, with the support by government sector, becomes key agent to lead city expansion.

This pattern of expansion then provides problems to local community in many ways. People in local community have to deal with social problem and environmental problem which they do not create even though they maybe get some positive effects on economic perspective. Local community has less chance to participate in city development. This development pattern results in the lack of cooperation between the locals, private sector, and government, and lead to an inefficiency of city development. Therefore, development has to be balanced with economic, social, and environmental factors. It is better to let every parts of city stakeholder participate in the city planning and city management in order to find the best guidelines for development.

It is challenging to find out the development guidelines for the city with public sector participation, and it is especially challenging for the local community to plan and issue city development guidelines. It is important to get the cooperation from every agency involved in the city to plan city guidelines, particularly the government and private sectors (public-private partnership, or PPP). Those related to issues including those from the economic, social, and environmental sectors should be balanced in bringing the community and city forward together. In addition, it is challenging to find the development guideline based on the concept of PPP. Empowering the public sector in the public space is also important. It is necessary to reach an understanding for the public sector to realize city development to create civil society and to promote the private sector to focus more on the CSR, which could lead to a process of sustainable city development in the future.

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### Comparison between Science and Technology and Social Science Students' Understanding towards General Studies

Nazri Muslim<sup>1</sup> & Zaharah Hassan<sup>1</sup>

<sup>1</sup> Center for University Citra, National University of Malaysia, Malaysia

Correspondence: Nazri Muslim, Center for University Citra, national University of Malaysia, 43600 Bangi, Selangor, Malaysia. E-mail: nazrimuslim@yahoo.com

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#### **Abstract**

Amid the fact that general studies have been regarded as a holistic education and that they are capable in producing all-rounders, in Malaysia specifically we have only met with the paucity of research that has automatically impeded any validation of the fact. In UKM for instance, the concept of general studies begins simultaneously with the establishment, but just how far it is effective is open to debate. In generality, it can be said that both students and the faculty have underestimated the significance of general study courses. The emphasis on the broadening of this general studies in principle is consistent with the aspirations of liberal education at the initial phase of the establishment of the UKM, which is towards creating graduates who can think laterally and in balance. This study seeks to analyse the views of UKM students on how they understand the philosophy and importance of general studies. This study involves 400 respondents who were chosen among third year students who have registered for the courses. The study data were obtained through a questionnaire using the SPSS program. Descriptive statistics such as frequency, percentage, mean, cross-tabulation statistics, and correlation coefficient were employed to explain respondents backgrounds and assess students' views on generic skill courses. The study outcome demonstrates that students have regarded highly over the generic skill courses, in general. There has been an insignificant difference between social science and science and technology students. Based on the study findings, several suggestions have been put forth for the improvement of generic skill courses so that it will produce students who have generic skills needed for the workplace market.

Keywords: general studies, university students, perception, higher education, national university of Malaysia

#### 1. Introduction

In the era of global competition, universities not only need to produce graduates who have the technical efficacy but also attention must be given to the component of general studies, in order to develop students in a holistic manner. General studies involve the inculcation of skills, the expansion or broadening of knowledge, and a certain attitude that can help graduates undertake life effectively at the individual, organisational and global levels. Unfortunately, in most developing countries including Malaysia, the call for human labour to cater for the needs of the industry that is growing rapidly, has given an impact to the development of general studies. Thus, we should not be surprised as to why higher institutions today concentrate more on "specification" to produce graduates that have been regarded as "job-ready" so much so that there are a lot of students, as well as parents, have the view that general studies are unimportant and burdensome.

Among the academicians themselves, there are many of them who see general studies as having low status. The faculty does not stress on the general study component and allow the students to choose their course in a "fragmented" form, without giving any depth and meaning to their course planning.

Due to these attitude and practice, the work market is filled with university graduates that are not able to meet their employers' expectations and requirements. In a study done by Lazerson, Wagener & Shumanis (2000) it shows that only 1/3 from 1400 higher learning institutions in the USA assess their students in terms of their "higher-order learning skills, affective development or profesional development". This sits well with Oblinger & Verville (1998) who write that there are many employers who report that these adult graduates are weak at several skills such as writing, verbal communication, teamwork and lifelong learning. This statement is supported by the Association of American Colleges and Universities (2008) who states that employers tend to look for apprentices who have high capability and skills in areas namely problem-solving, teamwork,

communication and leadership.

In Malaysia too, the public opines that the failure of the graduates to get a job is explained by the fact that they do not have the soft skills or human skills that are very much needed by employers. It has been found by Haslinda, Muhammad Nubli dan Zarina (2005) that the marketability of every graduates is measured through various aspects and the employers are inclined to look for future apprentices that who possess various skills without having to give them in-service training.

The study done by the Center of Academic Development (CADE) UPM finds that issues related to human skills stay at the tenth rank during the interview, as compared to academic-related issues staying at the 18th rank (Shatar & Mohamad, 2008). This shows that matters related to the formation of students' human skills must be given serious attention especially at the level of Higher Learning Institute in Malaysia.

#### 2. The Concept of General Studies

Liberal education is education that promotes the limitless spirit of inquiry without the restriction of title that is labeled as relevant or fundamental to the vocational requirements. General studies serve as one component under this liberal education. It is also a form of education that allows people to undergo a more meaningful life. The subject learned, skills mastered and the mind habit inculcated and obtained in the process undertaken by a student will shape their life in the future, or when they complete their university years (Report of the Task Force on General Education Harvard University, 2007).

The education at the university level carries many dimensions as proven in associations, involvement in arts and culture, sports and lives in college. All these contribute to intellectual development, the inculcation of ethics and student's self-development. Academic experiences are also the central core of all these experiences. Normally, studies at the university level contain three main components and they are specification, elective and general studies.

Specification enables students to learn in depth about the discipline of knowledge of their choice. Elective subjects enable them to explore the field outside their subjects that have become their focus other than expanding their knowledge. Meanwhile, for subjects under general studies, they have the role to connect those learned in the university with the outside world. General studies also make students better understand and appreciate the complex world and their role in that world.

In the General Study Center, Universiti Kebangsaan Malaysia, General Studies is defined as a pre-graduate education that seeks to provide the students with preparatory knowledge to survive in modern society. The knowledge encompasses the understanding on noble values, history and responsibility in the society; skills on the quantitative analysis and communication techniques; delving into the elements of arts and culture, and the ability to use pastime productively.

In UKM, between 15 and 20 percent credits that must be taken by students throughout their courses comprise of courses that can be categorized as general study courses. The courses are offered by the faculty and also the General Study Center (PPU) and other centers. Courses in the PPU are divided into U1 courses which are compulsory courses, courses U2 that stress on skill acquisition, courses U3 which open doors for the expansion of knowledge and courses U4 that stress on the mastery of English and the Malay Language.

At the university level, although the importance of general studies is reflected through the total number of credits allocated, but in practice, the majority of people in the campus see general study courses as one that needs to be taken only to fulfill the requirement. The faculty often encourages the students to "complete" general study courses as soon as they can to concentrate on core courses. There are even some quarters who suggest that the number of credits allocated should be reduced. Why does this continue to happen when students' incapacity in areas contained in general studies is widely reported?

#### 3. Study Objectives

- 1) Identify the perceptions of students from science and technology and social science streams on the philosophy and importance of general studies.
- 2) Identify the perceptions of students from science and technology and social science streams on the fulfilling human skills.
- 3) Identify the perceptions of students from science and technology and social science streams on the mastery in the human skills.

#### 4. Research Methodology

This study employs a quantitative approach. The sample of study comprises of 400 students that were chosen at random. The instrument used is divided into Sections A, B, C and D covering aspects of demographic information, philosophical understanding, aims, importance and the enhanced human skills. To measure students' level of understanding, The Likert scale takes the form of 1 representing Strongly disagree, 2 Disagree, 3 Slightly disagree and 4 Agree and 5 Strongly Agree.

Data obtained have been analysed using the SPSS program version 16 through the descriptive statistics such as frequency, percentage and mean and they are used to explain about the demography of the respondents and the level of understanding of the students on general studies.

The "Cronbach Alpha" test was used to measure the reliability and consistency of the instrument. According to Nunally (1978) the "Cronbach Alpha" value must be more than 0.70 to indicate high reliability and consistency. Table 1 is an analysis showing reliability for the Section that uses the scale, such as Section B, Section C, and Section D. The value obtained shows that the item in the construct can be seen as reliable.

Table 1. "Cronbach Alpha" scores results

Section	Item	"Cronbach Alpha" Score	
Section B	12	0.755	
Section C	77	0.958	
Section D	38	0.977	
Overall	127	0.971	

To discuss the study findings descriptively in relation to their understanding, the mean score interpretation or classification level has been employed. The classification level is as shown in Table 2.

Table 2. Level of classification of students' understanding on general education

Classification Level	Range Level
Low	1.00-2.33
Moderate	2.34-3.67
High	3.68-5.00

Table 3. Distribution of respondents by gender, race, faculty and year of study

Demographic Characteristics	Percentage
Gender	
• Male	37.5
• Female	62.5
Race	
• Malay	81.5
• Chinese	16.3
• Others	2.8
Year of Study	
• Year 2	43.5
• Year 3	34.5
• Year 4	22.0
Faculty	
• FSSK	8.5
• FKAB	27.8
• FPI	10.8
• FST	22.8
• FEP	17.5

In this study, the division between science and technology students, also social science students is according to the faculty. For the science and technology students, the faculties involved are Science and Technology Faculty (FST) and Engineering and Built Environment Faculty (FKAB), whereas for social science students, the faculties involved are Social Science and Humanity Faculty (FSSK), Islamic Studies Faculty (FPI) and Economy and Management Faculty (FEP).

#### 5. Study Findings and Discussion

#### 5.1 Demography

The study respondents comprise of second, third and fourth year students. From 400 respondents, 250 are female students and 150 more are male students. The majority, or 324 students or by percentage 81.5% are Malay respondents. The second year students make up the largest group, or 43.5%, followed by third-year students around 138 or 34.5% and year 4 students 88 or 22%. The total number of respondents by faculty highlights that the students from the Engineering and Built Environment make up the largest group or 20% or 111 students, then followed by students from Economy and Management Faculty 70 students or 17.5%. Data on the demography of the respondents are summarized in Table 3.

5.2 Students' Perception on the Importance of General Studies According to Faculty of Science and Technology and Faculty of Social Science

Table 4. The importance of general studies regarded by students from the faculty of science and technology and faculty of social science

No	Statement	Faculty %	Disagree %	Slightly disagree %	Agree %
		FSSK	2.9	2.9	94.1
	creating graduates who can use and adapt	FKAB	12.3	17.3	70.4
1	the knowledge in various situations, levels	FPI			100.0
	and cultures	FST		3.3	96.7
		FEP		8.6	91.4
		FSSK	2.9	14.7	82.4
		FKAB	13.6	18.5	67.9
2	creating graduates skilled enough to use English as their work language	FPI	2.3	2.3	95.3
	English as their work language	FST	4.4	9.9	85.7
		FEP	5.7	15.7	78.6
		FSSK	2.9	2.9	94.1
	creating graduates with good leadership	FKAB	9.9	21.0	69.1
3		FPI	2.3	2.3	95.3
		FST		7.7	92.3
		FEP	1.4	12.9	85.7
		FSSK	2.9	2.9	94.1
		FKAB	7.4	19.8	72.8
4	creating graduates who can communicate and interact in a team	FPI	2.3		97.7
	and interact in a team	FST		3.3	96.7
		FEP	1.4	4.3	94.3
		FSSK	2.9	2.9	94.1
	creating graduates who have the leadership	FKAB	9.9	16.0	74.1
5	and direction in the context of function and	FPI		4.7	95.3
	role of the society	FST	1.1	1.1	97.8
		FEP	1.4	7.1	91.4
		FSSK	2.9	5.9	91.2
		FKAB	9.9	29.6	60.5
6	creating graduates functioning as technocrats and bureaucrats	FPI		9.3	90.7
	technocrats and bureaucrats	FST	1.1	15.4	83.5
		FEP	1.4	24.3	74.3

Table 5. The aim of general studies regarded by students from the faculty of science and technology and faculty of social science

No.	Statement	Fac.	Disagree %	Slightly disagree %	Agree %
		FSSK	2.9	11.8	85.3
	Prepare students to get involved and take part in	FKAB	14.8	11.1	74.1
1	social activities/ community services	FPI	2.3	9.3	88.4
	Social activities, community services	FST		11.0	89.0
		FEP	1.4	15.7	82.9
		FSSK		5.9	94.1
		<b>FKAB</b>	6.2	27.2	66.7
2	Understand factors that influence changes at the	FPI	2.3	7.0	90.7
	national and global levels	FST		13.2	86.8
		FEP		17.1	82.9
		FSSK	5.9	2.9	91.2
		FKAB	7.4	23.5	69.1
3	Understand the diversity of cultures that shapes the	FPI		7.0	93.0
-	society and individual	FST		6.6	93.4
		FEP		11.4	88.6
		FSSK	5.9	5.9	82.4
		FKAB	11.1	29.6	59.3
4	To expose students to advancement in the world of science and technology	FPI	11.1	11.6	88.4
7		FST	2.2	13.2	84.6
		FEP	1.4	27.1	71.4
	To enable students to understand the role of arts, ideas and values in shaping their identity	FSSK	8.8	11.8	79.4
_		FKAB	7.4	27.2	65.4
5		FPI		4.7	95.3
	1 6	FST		13.2	86.8
		FEP	1.4	11.4	87.1
		FSSK		11.8	88.2
	To proper students to be concluded freesting to	FKAB	12.3	24.7	63.0
6	To prepare students to be capable of reacting to changes critically and constructively	FPI		7.0	93.0
	changes critically and constructively	FST	1.1	7.7	91.2
		FEP	1.4	5.7	92.9
		<b>FSSK</b>	2.9	14.7	82.4
		FKAB		9.9	80.1
7	To build students' understanding on ethics-related	FPI		4.7	95.3
	aspects in regard of their behaviour	FST	1.1	6.6	92.3
		FEP		11.4	88.6
		FSSK	5.9	2.9	91.2
	To produce graduates who have the morality, ethics,	FKAB	11.1	18.5	70.4
8	creativity, tolerance and sanity from the	FPI	11.1	4.7	95.3
O	multi-disciplinary and cross-cultured perspectives in	FST	2.2	4.4	93.4
	contemporary issues	FEP	2.2	4.3	95.7
		FSSK			
			12.2	5.9	94.1
0	To equip students with generic skills needed in order	FKAB	12.3	34.6	53.1
9	to function effectively as to cater for the needs of the	FPI		7.0	93.0
	employers	FST	1.1	11.0	87.9
		FEP		8.6	91.4
		FSSK		5.9	94.1
	To produce graduates who think holistically by	FKAB	9.9	27.2	63.0
10	integrating and balancing general and specific	FPI		2.3	97.7
	knowledge	FST	1.1	7.7	91.2
		FEP		12.9	87.1
	To produce graduates who master both the Malay	<b>FSSK</b>	5.9	2.9	91.2
	Language and English for effective communication	FKAB	17.3	24.7	58.0
11	verbally and in writing, at the individual, group and	FPI		4.7	95.3
	community levels in both academic and vocational	FST		8.8	91.2
	surroundings			5.7	94.3

Based on the Table above, there is no significant difference between science-streamed students and social science students when viewing the importance of general studies to them. They share the opinion that general studies are important in developing self-potential such as the ability to communicate, have a sense of leadership and play a role in the community.

5.3 Students' Perception on the Aim of General Studies According to the Faculty of Science and Technology and Faculty of Social Science

The table above shows that, all in all, students from both science and social science streams agree that the aim held by general studies is able to produce holistic students-those fulfilling the work market. The aim of general studies is for students to be able to develop their own ethics, play a great role in the community and not solely mastering the disciplines of the core knowledge. Meanwhile, this aim is at par with the aim of education in UKM which is to create graduates who have the confidence, leadership and self-identity both nationally and internationally. Measurable characteristics in Educational goals are as established below:

- 1) Measurable Characteristics Domain "Confident"
- Possess strong knowledge in the field of study,
- Skilled in their respective field of knowledge,
- Can use and adapt the knowledge to various situations/circumstances, level and culture (innovative and creative),
- Skilled in using international/global work language (English).
- 2) Measurable Characteristics Domain "Leadership"
- Can communicate and interact in a team,
- Have a leadership and direction in the context of function and role of the community,
- Can make decisions and make smart actions based on ethics and universal values (fair, just, sustainable and have an integrity)
- 3) Measurable Characteristics Domain "National Identity"
- Highly ethical and morale.
- Have the skills and are comfortable in interacting among different cultures and religions.
- Proud and eloquent in using the mother tongue,
- Have the awareness to defend the country's sovereignty.
- 5.4 Students' Perception on General Studies According to Students of Faculty of Science and Technology and Faculty of Social Science in Fulfilling Human Skills Requirements

Table 6. General studies according to the faculty of science and technology and faculty of social science in fulfilling human skills requirements

Bil.	Statement	Fac.	Disagree %	Slightly disagree %	Agree %
		FSSK	5.9	8.8	85.3
	creating graduates that can make the	FKAB	11.1	24.7	64.2
1	decisions and make smart moves based on	FPI	-	9.3	90.7
	ethics and universal values	FST	1.1	4.4	94.5
		FEP	-	4.3	95.7
		FSSK	5.9	8.8	85.3
	creating graduates with national identity	FKAB	8.6	28.4	63
2		FPI	2.3	14	83.7
		FST	2.2	8.8	89
		FEP	1.4	10	88.6
		FSSK	5.9	5.9	88.2
		FKAB	7.4	21	71.6
3	creating graduates with high levels of ethics and moral	FPI	-	9.3	90.7
	cuites and moral	FST	2.2	4.4	93.4
		FEP	-	7.1	92.9

Bil.	Statement	Fac.	Disagree %	Slightly disagree %	Agree %
		FSSK	-	2.9	97.1
	creating graduates who are skillful and	FKAB	8.6	14.8	76.5
4	comfortable in their interactions among	FPI	2.3	2.3	95.3
	cultures and religions	FST	1.1	6.6	92.3
		FEP	1.4	2.9	95.7
		FSSK	2.9	26.5	70.6
		FKAB	12.3	32.1	55.6
5	creating graduates who are proud and	FPI	7	23.3	69.8
	eloquent in using the mother tongue	FST	3.3	13.2	83.5
		FEP	5.7	20	74.3
		FSSK	5.9	5.9	88.2
		FKAB	13.6	25.9	60.5
6	creating graduates with an awareness to	FPI	4.7	11.6	83.7
U	defend their country's sovereignty	FST	1.1	12.1	86.8
		FEP	1.4	14.3	84.3
		FSSK	5.9	5.9	88.2
	creating graduates who have the	FKAB	8.6	27.2	64.2
7	confidence, leadership, ethics, and			2.3	95.3
7	national identity in the international	FPI	2.3		
	domain	FST	1.1	4.4	94.5
		FEP		8.6	91.4
		FSSK	11.1	2.9	97.1
	creating graduates with various skills	FKAB	11.1	21	67.9
8	other than possessing strong knowledge in their respective fields	FPI		9.3	90.7
		FST	3.3	6.6	90.1
		FEP		7.1	92.9
		FSSK	2.9	11.8	85.3
	creating graduates who have the skills in their respective fields	FKAB	17.3	22.2	60.5
9		FPI		14	86
	and respective notes	FST	1.1	16.5	82.4
		FEP	2.9	12.9	84.3
		FSSK	8.8	2.9	88.2
	creating graduates who can use and adapt	FKAB	11.1	25.9	63
10	the knowledge in various situations,	FPI		11.6	88.4
	levels and cultures	FST		6.6	93.4
		FEP		5.7	94.3
		FSSK	5.9	8.8	85.3
		<b>FKAB</b>	21	27.2	51.9
11	creating graduates who are skilled in using English as their work language	FPI	2.3	9.3	88.4
	using English as their work language	FST	4.4	14.3	81.3
		FEP	7.1	15.7	77.1
		FSSK	-	8.8	91.2
		FKAB	13.6	21	65.4
12	creating graduates with leadership skills	FPI		9.3	90.7
		FST		3.3	96.7
		FEP		7.1	92.9
		FSSK		,	100
		FKAB	11.1	19.8	69.1
13	creating graduates who can communicate	FPI	11,1	2.3	97.7
13	and interact in a team	FST		2.2	97.8
		FEP		5.7	94.3
		FSSK		2.9	94.3 97.1
		FKAB	9.9	16	74.1
14	creating graduates with leadership and	FPI	9.9		
14	direction in the context of function and role of the society		1.1	2.3	97.7 04.5
	Total of the society	FST	1.1	4.4	94.5
		FEP		4.3	95.7

The table above shows that the students from both streams agree that general studies are able to fulfill human requirements. The human skills outlined in the UKM cover eight aspects which are Social Skills and Responsibility, Creative and Innovative Skills, Management and Entrepreneurial Skills, Leadership and Teamwork skills, Critical Thinking Skills, Problem-Solving and Scientific Approach, Value Skills, Attitude, Ethics and Professionalism, Information Management and dan Lifelong Learning Skills and Communication Skills. This is consistent with the work of Mohd Faizal (2005) who puts forth worker characteristics, where those deemed knowledgeable and highly skilled tend to have various skills, are versatile, creative and are able to face continuous technological changes and follow lifelong learning, along with the fact that this worker needs to be adaptable to the use of the latest technology as to avoid from any potential problems that can occur in this era of globalization.

5.5 Students' Perception on General Studies According to the Faculty of Science and Technology and Faculty of Social Science In Producing Graduates With Mastery in Human Skills

Table 7. General studies according to the faculty of science and technology and faculty of social science in producing graduates with mastery in human skills

No.	Statement	Faculty	Disagree %	Slightly disagree %	Agree %
		FSSK		8.8	91.2
		FKAB	14.8	27.2	58
1	General study courses are very important and they give added value to my study program	FPI		2.3	97.7
	added value to my study program	FST		8.8	91.2
		FEP		10	90
		FSSK		11.8	88.2
		FKAB	9.9	39.5	50.6
2	General study courses are very important in producing holistic students	FPI	0	11.6	88.4
	nonstic students	FST	1.1	17.6	81.3
		FEP	1.4	20	78.6
		FSSK	20.6	50	29.4
		FKAB	14.8	37	48.1
3	General study courses are only needed as a criterion for graduating	FPI	20.9	20.9	58.1
		FST	17.6	37.4	45.1
		FEP	11.4	38.6	50
		FSSK		11.8	88.2
		FKAB	7.4	33.3	59.3
4	General study courses are very important as to fulfill the requirements of MQF	FPI	2.3	11.6	86
	requirements of MQr	FST	4.4	19.8	75.8
		FEP		18.6	81.4
		FSSK	50	38.2	11.8
		FKAB	38.3	30.9	30.9
5	General study courses are burdensome to me	FPI	25.6	30.2	44.2
		FST	33	41.8	25.3
		FEP	38.6	41.4	20
		FSSK		14.7	85.3
		FKAB	16	23.5	60.5
6	General study courses are important as students' preparation	FPI	0	7	93
	to enter the working world	FST	4.4	8.8	86.8
		FEP	1.4	10	88.6
		FSSK	2.9	14.7	82.4
7	My value is increased after I take the general study course	FKAB	13.6	29.6	56.8
	171y value is increased after I take the general study course		2.3	9.3	88.4

No.	Statement	Faculty	Disagree %	Slightly disagree %	Agree %
		FST	3.3	17.6	79.1
		FEP		18.6	81.4
		FSSK	2.9	17.6	79.4
	A second to the	FKAB	11.1	33.3	55.6
8	My attitude is generally improved to become more positive after I take the general study course	FPI		9.3	90.7
	arter I take the general study course	FST	2.2	13.2	84.6
		FEP		18.6	81.4
		FSSK	5.9	17.6	76.5
	M	FKAB	11.1	35.8	53.1
9	My professionalism is improved after I take a general study course	FPI		7	93
	course	FST	1.1	17.6	81.3
		FEP		25.7	74.3
		FSSK		11.8	88.2
		FKAB	8.6	33.3	58
10	My ability to communicate has become better after I take General study courses	FPI		11.6	88.4
	General study courses	FST		12.1	87.9
		FEP	1.4	10	88.6
		FSSK	2.9	26.5	70.6
		FKAB	8.6	33.3	58
11	My leadership skills have become better after I take General study courses	FPI	2.3	11.6	86
		FST	1.1	13.2	85.7
		FEP	1.4	17.1	81.4
		FSSK		5.9	94.1
		FKAB	6.2	25.9	67.9
12	My ability to work in a team has improved after I take	FPI		7	93
	General study courses	FST	1.1	7.7	91.2
		FEP		11.4	88.6
		FSSK		17.6	82.4
		FKAB	13.6	35.8	50.6
13	My ability to solve problems has become better after I take	FPI	0	16.3	83.7
	General study courses	FST	1.1	11	87.9
		FEP	1.4	18.6	80
		FSSK		20.6	79.4
		FKAB	8.6	33.3	58
14	My ability to manage information has improved after I take	FPI		14	86
	General study courses	FST		11	89
		FEP		11.4	88.6
		FSSK	2.9	17.6	79.4
		FKAB	21	24.7	54.3
15	My lifelong learning skills have improved after I take	FPI		11.6	88.4
	General study courses	FST		20.9	79.1
		FEP		18.6	81.4
		FSSK	5.9	20.6	73.5
		FKAB	21	33.3	45.7
16	My scientific skills have improved after I take General study	FPI		16.3	83.7
	courses	FST	2.2	28.6	69.2
		FEP	1.4	28.6	70

No.	Statement	Faculty	Disagree %	Slightly disagree %	Agree %
		FSSK	2.9	5.9	91.2
		FKAB	13.6	25.9	60.5
17	My social skills have improved after I take General study courses	FPI		2.3	97.7
		FST	2.2	7.7	90.1
		FEP	0	12.9	87.1
	My social responsibilities improve after I take General study courses	FSSK	2.9	11.8	85.3
		FKAB	11.1	30.9	58
18		FPI		7	93
	courses	FST	2.2	12.1	85.7
		FEP		14.3	85.7
		FSSK	14.7	20.6	64.7
	M	FKAB	30.9	37	32.1
19	My entrepreneurial skills improve after I take General study courses	FPI	2.3	18.6	79.1
	courses	FST	6.6	40.7	52.7
		FEP	5.7	21.4	72.9

The table above shows UKM students' views on enhanced human skills through general studies. The majority of UKM students (exceeding more than 70 percent) agreed that their generic skills had improved after they took up generic skill courses such as adopting positive attitude, professionalism, communicative ability, leadership skills, and the ability to work in a team, the ability to solve problems, lifelong learning skills and social responsibilities. However, there are also some generic skills that do not really improve them, (less than 70 percent) such as scientific skills, social responsibilities and entrepreneurial skills. This is consistent with Mohd Faizal (2005) who has introduced 'knowledgeable' and 'highly skilled' as employee characteristics with a lot of skills, versatility, creativity and having the capability to face ongoing technological changes and follow lifelong learning and adapt to the latest technological use to steer clear of any adversity that can emerge in this globalized era. At the same time, UKM needs to give attention to scientific skills, social responsibilities and entrepreneurial skills that are still lacking among UKM students.

#### 6. Implication and Suggestion

The data analysed demonstrate that although generally UKM students have grasped the philosophy and importance of general studies, if we look at it closely, there is a significant relationship between gender, race and faculty with the level of understanding. This means the lackadaisical attitude on general study courses is not due to the lack of understanding alone. Nonetheless, as there is still a significant relationship between the level of understanding and acceptance with several variables so the effort to improve the levels of understanding and acceptance towards education courses should be continued. The program introduced to realize this should be diversified according to suitability and preference, centralizing on gender, race and faculty. Among the actions proposed are as follows:

- 1) Centers that offer general study courses should ensure that information on the importance and relevance of general study courses need to be disseminated in various forms and the information should be easy to obtain. First year students in particular must be briefed clearly and sufficiently on general studies since week 1.
- 2) The faculty also needs to play its role by stressing to students that general study courses actually give an added value to their fields of specification.
- 3) Creating a specific committee that observes general study courses offered every three year as to ensure that the courses offered are consistent with students' interests and also the industrial requirements.
- 4) Centers offering general study courses need to be more innovative in the teaching and delivery of courses so that students become more interested.

#### 7. Closing

Although the concept of general studies has already been introduced for the past three decades and officials from Higher Learning Ministry have stressed on their importance through the introduction of human skills, but some of the academicians and students still regard the courses as burdensome, and either they need to be reduced or abolished. Students may be influenced by the expectations of the society that has exerted too much pressure on specification-related courses. Academicians also view that the total number of credit hours allocated for the specific courses is insufficient and this necessitates credit hours for other courses (especially general studies) to be lessened.

This study proves that the negative views are not caused by students' lack of understanding on general study philosophy. The data analysed demonstrate that the level of understanding among students is generally high. On this note, policy makers and university administrators must go to great length to overcome this problem. Other than formulating a curriculum that matches the needs of the society and the country, the effort to promote the importance of general studies should be enhanced in order to gain the interests of the students.

Investment in general study courses will benefit both the society and the nation in long term, as this course will give rise to leaders who can function effectively in the world that has always been, and is, embroiled in the turmoil of changes.

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### Factors Affecting the Volatility of the Jakarta Composite Index before and after the Merger of Two Stock and Bond Markets in Indonesia

Hermanto Tanjung<sup>1</sup>, Hermanto Siregar<sup>1</sup>, Roy Sembel<sup>1</sup> & Rita Nurmalina<sup>1</sup>

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#### Abstract

Relations in economies and finance are often simplified in the form of models. The Jakarta Composite Index (JCI) has relations to some variables of gold price, SBI (The Central Bank's Interest Rate), inflation, and GDP. The capital market in Indonesia has been growing to be a financial institution with strategic role in national economic development. Indonesia had ever had two capital markets: JSX (Jakarta Stock Exchange) and SSX (Surabaya Stock Exchange). Moreover, the two capital markets were merged to be BEI or IDX (Indonesia Stock Exchange) in 2008. With the merger, thus, there is only one capital market in Indonesia, i.e. BEI. The merger has implication to the management of capital market to stock trading liquidity and factors influencing the Indonesia Stock Exchange (IDX) Compose Price Index (IHSG). From the consideration, the research problem is how the impact of capital market merger to factors influencing the Indonesia Stock Exchange (IDX) Compose Price Index. The dissertation research has goal of analyzing effects of the gold price, SBI, inflation and GDP on JCI before and after the merger and formulating the consequences of the impact of the merger policy. The data of the variables used in this research are monthly time series for the period 2004(1) to 2012(12). Autocorrelation and heteroscedasticity problem persist in the initial model. To overcome these problems, the model was developed by using the ARCH/GARCH method. This model is expected to be useful to predict and make decisions related to volatility of the JCI and the affecting factors.

Keywords: ARCH/GARCH, autocorrelation, heteroscedasticity, Jakarta composite index, merger

#### 1. Background

Capital markets have an important role in allocating funds for investment. The crucial role of capital markets is to bring capital owners and capital requesters. The capital market is one of the most strategic areas of finance that can move all kinds of economic activities and contribute to the national development (Tease, 1993). The existence and development of the stock market does not exist by itself due to economic factors influencing each other and reciprocity.

Initially, there were two stock and bond markets in Indonesia i.e. JSX (Jakarta Stock Exchange) and SSX (Surabaya Stock Exchange). In late December 2007, the Government made a policy to combine the two markets into the Indonesia Stock Exchange (ISX). The policy of the merger has implications for stock trading liquidity, financial ratio performance of ISX and organization. One important issue in the stock markets is volatility of JCI; and JCI as the price concept is often influenced by several variables including gold price, SBI, inflation, and GDP.

Relations in the economy and finance are very complex since their nature can be either unidirectional or reciprocal like the relationship of JCI with other factors. For the purposes of analysis and policy, the complex economic relations can be simplified in order to make it easier in the processes of reading, analyzing, inferring and making decisions. These relationships are the relationships between the dependent variables and independent variables. In this study, JCI was categorized as a dependent variable and the other factors i.e. the gold price, SBI, inflation and GDP categorized as independent variables.

The relationships can be represented in the form of an econometric model describing effects of the independent variables on the dependent variables. The model can be analyzed to make decisions regarding volatility of the JCI and the associated variables.

<sup>&</sup>lt;sup>1</sup> Business and Management Program, Bogor Agriculture University (IPB), Indonesia Correspondence: Hermanto Tanjung, Business and Management Program, Bogor Agriculture University (IPB), Indonesia. E-mail: sidihermanto@gmail.com

#### 2. Research Questions

- 1) How do the gold price, SBI, inflation and GDP influence JCI before and after the merger of the two stocks and bond markets into ISX?
- 2) What are implications of the merger of JSX and SSX into ISX?

#### 3. Research Objectives

- 1) Analyzing effects of the gold price, SBI, inflation and GDP on JCI before and after the merger of the two stocks and bond markets into ISX.
- 2) Formulating consequences of the merger policy of the two markets.

#### 4. Data and Methodology

Data used in this study were time series, with the time period from 2004 to 2012 i.e. for nine years, where each year has twelve months, and as a whole it was amounted to 108 monthly observations. The monthly data were collected including JCI, the gold price, SBI, inflation, and the GDP. Sources of data were derived from financial statements of BEI, BI and BPS. Since the GDP is quarterly, this variable is made monthly by using a simple interpolation.

In the data analysis, the data were classified according to two periods, namely; the period before the merger (2004-2007) and the period after the merger (2008-2012) which were initially modeled by using the multiple regression analysis (Gujarati, 2003; Maddala, 2005; Greene, 2012). If autocorrelation and heteroscedasticity problems persisted in the initial model, the ARCH and GARCH methodology will be employed (Enders, 2004; Verbeeck, 2004; Tsay, 2005). The framework of this study is presented in Figure 1 as follows.

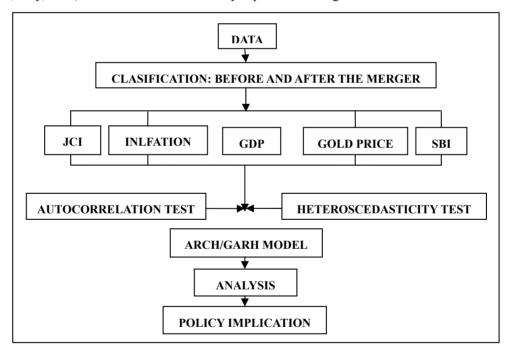


Figure 1. The study framework

The initial multiple regression models in this study is as follows where INFLASI is inflation, PDB is the GDP, EMAS is gold price, SBI is the Central Bank's Interest Rate, and  $\mu_t$  is the error term.

$$JCI_t = \beta_0 + \beta_1 INFLASI_t + \beta_2 PDB_t + \beta_3 EMAS_t + \beta_4 SBI_t + \mu_t$$
 (1)

In the ARCH/GARCH methodology this relation can be written as follows:

$$JCI_t = b_0 + \sum b_i x_{it} + e_t \text{ and } \sigma_t^2 = \alpha_0 + \alpha_1 e^2_{t-1} + \lambda \alpha^2_{t-1}$$
 (2)

Where  $b_i$  is regression coefficient of the  $i^{th}$  independent variable  $(x_{it})$ .  $x_{it}$  is the independent variable and  $e_t$  is the error term.

In this research, the models formed include 1) the model before merger and 2) the model after the merger.

#### 5. Results and Discussions

#### 5.1 The Model before the Merger

This model is based on the monthly data of JCI, gold price, SBI, inflation and GDP for the period of 2004-2007, i.e. 48 months as the research object before the merger of SSX and JSX is carried out. Moreover, the data are carried out through autocorrelation and heteroscedasticity tests. Moreover, it is followed with the search of the best model through the ARCH/GARCH test.

*The first step* is to see the initial regression among JCI and gold price, SBI, inflation, GDP, by making use of the OLS method. The initial multiple regressions are as follows:

Table 1. Regression result before merger

Dependent Variable: IHSG Method: Least Squares Sample: 2004M01 2007M12 Included observations: 48

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2787.022	452.7145	-6.156246	0.0000
INFLASI	35.12824	15.53044	2.261895	0.0288
PDB	0.023375	0.004528	5.162225	0.0000
HARGA EMAS	2.739775	0.380082	7.208378	0.0000
SBI	-59.79593	8.735306	-6.845316	0.0000
R-squared	0.954259	Mean dependent v	ar	1387.336
Adjusted R-squared	0.950004	S.D. dependent var	r	568.2781
S.E. of regression	127.0662	Akaike info criteri	on	12.62563
Sum squared resid	694269.7	Schwarz criterion		12.82054
Log likelihood	-298.0150	Hannan-Quinn criter.		12.69928
F-statistic	224.2673	Durbin-Watson sta	t	0.973456

Table 2. ARCH (1) Regression result before merger

Dependent Variable: IHSG

Method: ML - ARCH (Marquardt) - Normal distribution

Sample: 2004M01 2007M12 Included observations: 48

 $GARCH = C(6) + C(7)*RESID(-1)^2$ 

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-3140.988	585.3501	-5.366000	0.0000
INFLASI	28.75255	27.10776	1.060676	0.2888
PDB	0.027130	0.005389	5.034575	0.0000
HARGA EMAS	2.312658	0.392672	5.889541	0.0000
SBI	-51.98403	8.658645	-6.003714	0.0000
Variance Equation				
C	10452.71	2975.574	3.512839	0.0004
RESID(-1)^2	0.326032	0.371804	0.876892	0.3805
R-squared	0.952131	Mean dependent var		1387.336
Adjusted R-squared	0.945126	S.D. dependent var		568.2781
F-statistic	135.9178	Durbin-Watson st	at	0.842012

It can be seen that all of the independent variables have significant effects on JCI because p-value smaller than  $\alpha$  = 5%. *The second step* is to identify the existence of autocorrelation and heteroscedasticity problems by using the White tests. That is: the Obs\*R-squared result = 4.61%, which is smaller than  $\alpha$  = 5%, thus the data has autocorrelation and heteroscedasticity problems. Furthermore, *the third step* is to do test of six-phase ARCH/GARCH effects i.e.; ARCH (1), ARCH/GARCH (1,1), ARCH/GARCH (2,1), ARCH/GARCH (2,2), ARCH/GARCH (3,2), ARCH/GARCH (4,2). It is urgent because it solves the autocorrelation and heteroscedasticity problems. The method is to find the best model. Systematically the analysis is as follows:

#### ARCH (1)

After the analysis to the initial equation is carried out where the equation contains autocorrelation and heteroscedasticity problems, the next analysis is carried out to the ARCH/GARCH test. The first test is related to ARCH (1), and the results are as in Table 2.

From the above results, it is seen that the residual square elements are significant in the variance equation as shown in ARCH (1) with the results of RESID (-1)^2 *p-value* of 38.05%, which is much greater than  $\alpha = 5\%$ , indicating the model does not contain the autocorrelation and heteroscedasticity problems. Furthermore,  $R^2$  is 95.21%, a very large value, it can be interpreted that the independent variables are very determinant toward JCI or INFLASI, PDB, HARGA EMAS, and SBI variables which can explain the JCI phenomenon. However, the ARCH (1) model is not enough to be used as the best model because INFLASI does not significantly affecting JCI. Thus, the analysis is carried out in the next ARCH/GARCH test.

In the same way, the test is carried out to ARCH/GARCH effect, i.e.; ARCH/GARCH (1,1), GARCH (2,1), ARCH/GARCH (2,2), ARCH/GARCH (3,2) and ARCH/GARCH (4,2).

The fourth step is to find the best model. After the trial tests are carried out to ARCH/GARCH by considering p-value and  $R^2$  in each ARCH/GARCH, it finds the best model of GARCH (4,2). The result can be observed in Table 3.

Table 3. GARCH (4,2) Regression result before merger

Dependent Variable: IHSG

Method: ML - ARCH (Marquardt) - Normal distribution

Sample: 2004M01 2007M12 Included observations: 48

GARCH =  $C(6) + C(7)*RESID(-1)^2 + C(8)*RESID(-2)^2 + C(9)*RESID(-3)^2 + C(10)*RESID(-4)^2 + C(11)*CARCH(-2)*CARCH($ 

C(11)\*GARCH(-1) + C(12)\*GARCH(-2)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-2787.057	522.1576	-5.337578	0.0000
INFLASI	35.72411	16.59361	2.152883	0.0313
PDB	0.023763	0.005059	4.697273	0.0000
HARGA EMAS	2.694231	0.442084	6.094383	0.0000
SBI	-59.84383	8.801931	-6.798943	0.0000
Variance Equation				
C	10606.90	13990.08	0.758173	0.4483
RESID(-4)^2	-0.049936	0.543263	-0.091919	0.9268
GARCH(-2)	-0.366333	1.278685	-0.286492	0.7745
R-squared	0.951571	Mean depende	ent var	1387.336
Adjusted R-squared	0.936773	S.D. depender	S.D. dependent var	
S.E. of regression	142.8929	Akaike info ci	Akaike info criterion	
F-statistic	64.30530	Durbin-Watso	n stat	0.920354

From the above table, it is seen that the residual square elements are significant in the variance equation as shown by ARCH (4) generating RESID (-1) $^2$  *p-value* of 92.68%, and GARCH (2) 77.45%, which is greater than  $\alpha = 5\%$ , indicating the model has no autocorrelation and heteroscedasticity problems. All independent variables in the model are significant as they have p-values smaller than  $\alpha = 5\%$ . Furthermore,  $R^2$  is 95.16%,

which can be meant that the independent variables are very determinant toward JCI.

In the analysis, the best model for "before the merger" in Table 3 is GARCH (4,2):

$$IHSG = -2787.057 + 35.724111NFLASI + 0.02376PDB + 2.69423EMAS - 59.84383SBI$$
 (3)

$$GARCH = 10606.90 - 0.0499 e^{2}_{(t-4)} - 0.3663 GARCH_{(t-2)}$$
 (4)

#### 5.2 The Model after the Merger

In the situation "After the merger", the model is based on the period of 2008-2012, i.e. 60 months. As before, the autocorrelation and heteroscedasticity tests are performed, and then it is followed with the search of the best model through the ARCH/GARCH tests.

*The first step* is to search the initial regression among JCI and gold price, SBI, inflation, GDP, with OLS method, the initial multiple regression is as follows.

Table 4. Regression result after merger

Dependent Variable: IHSG Method: Least Squares Sample: 2008M01 2012M12 Included observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-904.9287	791.1729	-1.143781	0.2577
INFLASI	39.58744	32.24938	1.227541	0.2248
PDB	0.011320	0.007906	1.431733	0.1579
HARGA EMAS	2.361463	0.592779	3.983716	0.0002
SBI	-68.81994	18.00672	-3.821903	0.0003
R-squared	0.809583	Mean dependent var		1527.387
Adjusted R-squared	0.795735	S.D. dependent var		624.5249
S.E. of regression	282.2586	Akaike info criterion		14.20318
F-statistic	58.46000	Durbin-Watson sta	at	0.275780

Table 5. ARCH (1) Regression result after merger

Dependent Variable: IHSG

Method: ML - ARCH (Marquardt) - Normal distribution

Sample: 2008M01 2012M12 Included observations: 60

 $GARCH = C(6) + C(7)*RESID(-1)^2$ 

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-2905.167	505.9546	-5.741952	0.0000
INFLASI	14.61767	45.54361	0.320960	0.7482
PDB	0.026207	0.004436	5.907241	0.0000
EMAS	1.800503	0.310094	5.806309	0.0000
SBI	-36.09435	9.457316	-3.816553	0.0001
Variance Equation				
C	10035.08	5611.867	1.788190	0.0737
RESID(-1)^2	1.126369	0.631602	1.783353	0.0745
R-squared	0.742799	Mean dependent v	var	1527.387
Adjusted R-squared	0.713682	S.D. dependent va	ar	624.5249
F-statistic	25.51072	Durbin-Watson st	at	0.186100

It is seen that INFLASI and PDB variables are not significant affecting JCI where p-values are tremendously larger than  $\alpha = 5\%$ . The variables of HARGA EMAS and SBI are significant to JCI as the p-values are smaller

than  $\alpha = 5\%$ . The second step is to identify the presence of autocorrelation and heteroscedasticity by using the White tests. The results are: Obs\*R-squared = 0.37%, the value is smaller than  $\alpha = 5\%$  so the data has autocorrelation and heteroscedasticity problems. Furthermore, the next step is to do trial test of six-phase ARCH/GARCH effect i.e. ARCH (1), ARCH/GARCH (1,1), ARCH/GARCH (2,1), ARCH/GARCH (2,2), ARCH/GARCH (3,2), ARCH/GARCH (4,2). This is urgent in order to solve for the autocorrelation and heteroscedasticity problems. The method is to find the best model. Systematically the analysis is as follows:

#### ARCH (1)

The first test is carried out for the ARCH (1) model and the results are as follows in Table 5.

From the above results, it is seen that the residual square elements are not significant in the variance equation as shown in ARCH (1) generating RESID (-1)^2 *p-value* of 7.45%, which is tremendously greater than  $\alpha = 5\%$ , indicating the model does not contain autocorrelation and heteroscedaticity problems. Furthermore,  $R^2$  is 74.27%; this value is great so it is interpreted that the independent variables are determinant toward JCI or INFLASI, PDB, HARGA EMAS, and SBI variables which can explain the JCI volatility. However, the ARCH (1) model cannot be enough to be the best model because there is one independent variable which is insignificant INFLASI.

In the same way, the test are carried out for ARCH/GARCH effect, i.e. ARCH/GARCH (1,1), GARCH (2,1), ARCH/GARCH (2,2), ARCH/GARCH (3,2) and ARCH/GARCH (4,2).

The fourth step is to find the best model. After conducting the tests, by considering p-values and  $R^2$  from each ARCH/GARCH, we get the best model, i.e. GARCH (4,2). The results are in Table 6 as follows.

Table 6. GARCH (4,2) Regression result after merger

Dependent Variable: IHSG

Method: ML - ARCH (Marquardt) - Normal distribution

Sample: 2008M01 2012M12 Included observations: 60

GARCH =  $C(6) + C(7)*RESID(-1)^2 + C(8)*RESID(-2)^2 + C(9)*RESID(-3)^2 + C(10)*RESID(-4)^2 + C(11)*GARCH(-1) + C(12)*GARCH(-2)$ 

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-906.1256	594.4960	-1.524191	0.1275
INFLASI	42.43096	11.11500	3.817451	0.0001
PDB	0.011013	0.005479	2.010125	0.0444
EMAS	2.346951	0.355748	6.597231	0.0000
SBI	-60.89876	9.951004	-6.119861	0.0000
Variance Equation				
C	53555.87	53761.20	0.996181	0.3192
RESID(-4)^2	0.180327	0.254061	0.709776	0.4778
GARCH(-2)	-0.955782	0.110612	-8.640892	0.0000
R-squared	0.807380	Mean dependent var		1527.387
Adjusted R-squared	0.763237	S.D. dependent var		624.5249
S.E. of regression	303.8830	Akaike info criterion		13.71813
F-statistic	18.29043	Durbin-Watson	stat	0.275899

From the above table, it is seen that the residual square elements are significant in the variance equation as shown in ARCH(4) with the results of RESID (-1)  $^2$  *p-value* totaling 47.78%, which is tremendously greater than  $\alpha = 5\%$ , and GARCH(2) is zero percent. This suggests the absence of autocorrelation and heteroscedasticity problems. All independent variables in the model has p-value smaller than  $\alpha = 5\%$ . Furthermore,  $R^2$  is 80.74%, the value is great so it can be interpreted that the independent variables are very determinant toward JCI or INFLASI, PDB, HARGA EMAS, and SBI variables can explain the JCI volatility.

The best model in Table 6 GARCH (4,2) is for "before the merger" can be written as follows:

$$IHSG = -906.126 + 42.43096INFLASI + 0.01101PDB + 2.34695EMAS - 60.89876SBI$$
 (5)

$$GARCH = 53555.87 + 0.1803 e^{2}_{(t-4)} - 0.9558 GARCH_{(t-2)}$$
 (6)

#### 5.3 Comparison before and after Merger

From the analysis of ARCH/GARCH, it can be carried out the comparison of model for before and after the merger as follows.

From the Table it is found the similarity of the best model. Both models can be specified using the GARCH (4,2).

The difference of the model is seen in  $R^2$ , and p-values. The  $R^2$  before the merger is 95.57%, which is higher than after the merger (80.74%). It indicates that determination of independent variables to JCI before merger is stronger when compared to that after merger. This situation may indicate that after the merger, the predictability of JCI has been lower.

Table 7. Comparing the best models for "before" and "after" the merger

Condition	The Best Model	$R^2$ Percent	p-value Model	p-value Variance equation
Before merger	GARCH (4,2)	95.57%	INFLASI: 0.0313	
			PDB: 0.0000	Resid $(-1)^2 = 0.9268$
			H EMAS:0.0000	GARCH (4,2)=0.7745
			SBI: 0.0000	
After merger	GARCH (4,2)	80.74%.	INFLASI:0.0001	
			PDB: 0.0444	Resid $(-1)^2 = 0.4778$
			H EMAS:0.0000	GARCH (4,2)=0.0000
			SBI: 0.0000	

#### 6. Discussion

Based on the statistical data during the period of 2008-2012, particularly after the merger of the two stocks and bond markets, the real sector has developed rapidly. It happens that JCI tends to decrease after the merger. Therefore, the investments have changed from the stock or bond sector to the real sector. Appropriate to the decline in JCI, real sector particularly property sector grows fast in Indonesia.

After the merger particularly in the early years after the merger, the gold price went down, but after that it rose again by 2012. It is shown that the gold price tends to rise every month regularly, and sometimes it goes down. However, the fluctuations of gold price tend to rise after the merger.

The SBI rate has risen after the merger. In the first years after the merger, SBI grew very high totaling 11.90%, and the high interest rate of SBI is in an effort to compensate for the high rate of inflation. Moreover, in current economic condition, whereby SBI is still considered relatively high, there is a strong reason for fund allocation into savings.

Similarly, the property sector is more stable and tends to go up every month, and this becomes a lucrative investment option. However, it is different from stock or bond investment where stock or bond prices are likely to fluctuate in the extreme and risky way, but it has a high profit prospect, and the risk of loss that will always be a threat to investors only happens once.

Towards the end of the merger in 2007, the price of gold tended to rise. SBI initially rose, and fell, but finally it is stabilized. Inflation fluctuates greatly. Meanwhile, in the same time, JCI movement fluctuates. These three factors (gold, SBI and inflation) and GDP (as a proxy of property) are situations which become a factor affecting the business environment of JCI.

The factors affecting JCI in this study are all factors that are domestic. The analysis did not include how far the influence of the international factors on the development of JCI. This is particularly important since foreign investors invest their funds in stocks in Indonesia in quite large amounts estimated at approximately 60%. This will give an impact on the investment allocation diversion since foreign investors play a more dominant role in international capital stocks. Thus, the international factor becomes very important in the analysis of JCI.

Since there is a relationship between the international factor and the development of JCI, the analysis requires

considering international indicators. In this case, the U.S. dollar exchange rate and international stocks like Don Jowns, Han Seng and others should be considered. The international indicators are very sensitive to the development of JCI. If the movement of JCI is not profitable due to the development of security and non-economic activities, it will have an impact on the diversion of investment which moves toward capital flight.

Because this study did not include the international elements and focused more on domestic factors, the discussions of the research results illustrate the behaviors of domestic indicators. With the limitations in this analysis, it is expected that further researches incorporating elements of international indicators into the model will be conducted.

Frequently, foreign investors also pay attention to service organizations, since the merger of JSX and SSX into ISX, ISX has to pay higher costs due to the construction of the information network of Jakarta Automatic Trading System (JATS). This results in higher fees for the transactions of stocks in ISX. When compared to the international capital markets such as in India, the transaction fees in ISX are much higher, and this can be a trigger which causes foreign investors to be less interested in investing their funds in Indonesia.

#### 7. Conclusion and Recommendations

Based on the results of this research, it is concluded that the influence of INFLASI, PDB, HARGA EMAS and SBI variables to JCI is very significant both before and after the merger. However, in the analysis it is found that the influence of INFLASI is less significant to JCI before the merger. On the other hand, PDB after merger is less significant to JCI as compared to before the merger. After the merger, JCI tended to decrease significantly if compared to that before the merger. From the discussion, it is suggested that:

- 1) The regulators should be carrying out reviews to legislations and regulations on the administration of the capital market; so as to make it becomes more efficient.
- 2) The operators should improve and strengthen the organization of ISX and optimize JATS as well as to develop more stock exchange corner programs in each university campus.
- 3) Investors and potential investors should pay attention to the consequences of variables that have significant influences to JCI particularly by observing INFLASI, gold price, SBI, and GDP in the effort of optimizing fund allocation.
- 4) For any limitation of not using the international indicators, further researches should be carried out to analyze effects of international variables on JCI, and establish strategies for optimizing functions and roles of the ISX.

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# The Mediation Effect of Organizational Climate on the Relationship between HPWS and Perception of Patient Safety

Alotaibi Eqab Aiyadh<sup>1</sup>, Rushami Zien Yusoff<sup>1</sup>, Ebrahim Mohammed Al-Matari<sup>2</sup> & Fahmi Shaaban Fararah<sup>3</sup>

Correspondence: Alotaibi Eqab Aiyadh, School of Business Management, University Utara Malaysia, 06010 UUM, Kedah, Malaysia. E-mail: aldhiyabi08@yahoo.com

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#### Abstract

The main aim of this paper is to investigate the mediation effect of organizational climate on the relationship between HPWS and perception of patient safety in Saudi Hospitals. Patient safety has become a significant topic among health professionals, policy makers, and the public owing to the emphasis on the reported and unreported healthcare errors that result in negative situations. A quantitative research design was adopted to collect data. Out of 254 questionnaires returned which are content to 202 questionnaires returned from 112 general hospitals and 52 from 33 specialist hospitals only 217 questionnaires used for analysis. The Partial Least Squares Structural Equation Modeling (PLS-SEM) method was used to conduct this study. The findings of the study will contribute to both theory and practice. The results of this study have important contributions and implications for practitioners and policy-makers. This study contributed to the field of organizational climate on patient safety in Saudi Hospitals. It is contended that organizational climate was found to play a pivotal role in the model, as it had a direct significant impact on patient safety and frequency of occurrence of adverse events, and had a partial mediating effect on the relationship between HPWS and patient safety.

Keywords: organizational climate, patient safety, high performance, Saudi hospital

#### 1. Introduction

Patient safety has become a significant topic among health professionals, policy makers, and the public owing to the emphasis on the reported and unreported healthcare errors that result in negative situations. Several initiatives and studies dedicated to patient safety have been conducted in the Western countries that are characterized by well-organized healthcare systems and effectively implemented quality assurance programs (Al Rifai, 2008). In contrast, developing countries lack the infrastructure required for the implementation and lack resources to tackle patient safety. On the basis of the report of the World Health Organization (WHO, 2004), deficiencies in healthcare systems in terms of infrastructure, lack of skilled personnel and other quality issues are still prevalent in the developing countries.

Patient safety is comprised of indicators including various items in literature and among the top of them are patient mortality, failure-to-rescue (Aiken et al., 2003), pneumonia, pressure ulcers, erroneous medication, patients' accidental falls, and infections (Penoyer, 2010).

In an attempt to describe the potential factors affecting patient safety, it was stated that adverse events do not occur intentionally from people to hurt patients but they are attributed from the complex healthcare systems which influences the performance of the individuals (WHO, 2009). The ability of the employees to perform hinges upon a set of combined factors in a way that possessing greater abilities, being highly motivated and steering clear of external disruptions negatively impacting the employees work eventually results in better performance (Spaulding, 2011).

Consequently, policy makers in healthcare increasingly recognize that a well-motivated, appropriately skilled and deployed workforce is crucial for success of health system delivery (Buchan, 2004), managing this

<sup>&</sup>lt;sup>1</sup> School of Business Management (SBM), College of Business, University Utara Malaysia, Malaysia

<sup>&</sup>lt;sup>2</sup> Faculty of Business and Economics, Ammran University, Yemen and Othman Yeop Abdullah Graduate School of Business, University Utara Malaysia, Malaysia

<sup>&</sup>lt;sup>3</sup> Seiyun Community College, Hadhramaut, Yemen and Kulliyyah Muamalat, Insaniah University College, Malaysia

workforce by means of human resource management (HRM) can be seen as an important key to success in hospitals. With the recent advances in human resource management, high performance work system (HPWS), which was introduced in the last few decades, is viewed as the use of mutually reinforcing HRM practices in a systematic way which stresses on the selection of suitable employees, development of their skills, organizing work so that employees have the discretion to solve problems creatively, and the use of reward systems which motivate employees to work effectively in pursuit of organizational goals (Harley et al., 2007).

Patient safety has become foremost critical issue in the last decade either in the developed countries or in the developing countries (Nygren et al., 2013). Despite of the growing global concern about patient safety accompanied by the recent advances in medical technologies and several researches' conceptualization of patient safety, the reports and statistics about patient safety are scarce even in developed countries (Shojania et al., 2001). The review of these scarce available statistics clearly points to critical level of patient safety worldwide, for example, the statistics published by the Committee on Quality of Health Care in America and Institute of Medicine (2000) revealed that the annual total deaths due to preventable medical errors in USA were estimated to exceed 44,000 patients. In light of this and other similar alarming statistics from other institutes (Jao & Hier, 2010), it was ascertained that medical errors not only threaten the quality of healthcare and increase healthcare costs, but it also adds to the medical malpractice crisis (Studdert et al., 2005).

Organizational climate refers to the acknowledged features of the organization and its sub-systems as reflected in its way of dealing with members, groups and issues (Asha, 2008). It is a set of measurable properties of the work environment, which are directly/indirectly perceived by the individuals at the workplace and assumed to affect their motivation and behavior (Litwin & Stringer, 1968). Asha (2008) claimed that organizational climate hinges on the perceptions of the employees, and reflects the manner to which employees acknowledge their work environment, which in turn affects their work-related attitudes and behaviors. Based on this definition, organizational climate may be described as the individual's attitude towards organizations (e.g., trust level, morale, conflict, rewards equity, leadership credibility, change resistance and scapegoating (Ngo et al., 2009).

Some researchers have nevertheless postulated that climate is an environmental attribute that is developed by the organization's objective characteristics like its structure context. For instance, according to Richers and Schneider (1990), climate consists of the organization's perceptions concerning rewards (formal or informal), policies, routines, practices and procedures. The description of climate as an objective attribute indicates that an outside person can measure the climate in the organization on the basis of its aspects. Based on this notion, individual perceptions of climate should be ignored and this goes against the traditional method of aggregating individual's perception to measure climate. If climate is an actual organizational characteristic, then totaling individual data to gauge climate may lose its appropriateness (Glick & Roberts, 1984).

The mediating effect of organizational climate on the relationship between HRM system strength and organizational performance was first proposed by Bowen and Ostroff (2004). Sanders et al. (2008) stated that a strong organizational climate was a term used by Bowen and Ostroff (2004) to refer to the climate strength and not its level. Climate level refers to the convergent perceptions ratings of particular work situation facet like safety, service, or HRM, and it is often measured by the mean of individual perception scores, whereas climate strength refers to the agreement level concerning the climate. Climate strength is measured via homogeneity statistics that relate to the aggregate members' perception like standard deviation and within-group correlations. Hence, climate strength more closely reflects Bowen and Ostroff's (2004) organizational climate concept as the shared perceptions of employees.

Finally, in the health care sector, the environment has bearing on outcomes such as patient safety (Ngo et al., 2009). The dynamic work environment is what forms the organizational climate of the health service organization and it forms a guideline upon which employees to understand organizational life in the health care organizations (Ngo et al., 2009). Thus, organizational climate can be deemed among the top mediating factors in patient safety (Walston et al., 2010). Such mediation arises via HRM. Although several aspects related to HRM can impact patient safety, the present study focuses on specific elements that impact nurses' practices in public hospitals and its effect on patient safety.

The objective of the study is to obtain the mediating effect of organizational climate on patient safety in Saudi public hospitals.

#### 2. Literature Review and Hypotheses Development

2.1 Relationship between High Performance Work System and Organizational Climate

Schneider, White, and Paul (1998) were among the first to examine the relationship between HR practices and

shared perceptions among employees about the organizational climate in service business. They hypothesized that employees' perceptions about the concern of the organization in providing high level of service quality depend on their perceptions about climate-based aspects in HR practices, which involve encouragement of employees in sharing of making decisions in addition to appropriate training that supports and facilitates service delivery.

Accordingly, Whitener (2001) asserted that HR practices inherently influence employees' perceptions of a unit's level of support. Later, and based on the previous assumptions, researchers argued that HR practices play a key role in shaping employee climate perceptions about their work environment (Zacharatos et al., 2005). For example, Ostroff and Bowen (2000) considered HR practices an essential predictor of the interpretation of the employees about the strategic concern of the organization. Although earlier researches indicated that different climates can be initiated within the same organization as a result of implementing different strategic practices (Schneider, 1990), other studies indicated that apart from these variations, there are still shared perception among employees working in the same unit especially in climate of service organizations (Borucki & Burke, 1999) and safety climate (Hofmann & Stetzer, 1996). Based on above discussion, the following hypotheses are formulated:

#### Hypothesis 1: High performance work system (HPWS) is significantly related to organizational climate.

#### 2.2 Relationship between Organizational Climate and Overall Perception of Patient Safety

Many scholars believe that organizational climate is a significant factor in ensuring patient safety in health care systems (Walston et al., 2008). Basically, climate is a term that indicates shared employee perceptions which directly influences health care professionals to choose proper behaviors that enhance patient safety (Walston et al., 2008). From this definition, it is clear that the concept of organizational climate in health care systems is intimately related to patient safety. Hence, there is a growing concern about the impact of certain aspects of organizational climate on work stress and subsequent adverse events (Clarke et al., 2002). For instance, Fogarty and McKeon (2006) tested a model with hypothesized links between organizational climate and unsafe medication administration among nurses in Australia. They found that the model provided a considerable fit to the data with organizational climate and its relationship with the magnitude of violations to instructions. They also observed that violation to instructions was the only variable that made a direct contribution to medication errors. Based on these findings, the hypothesizes are formulated:

# Hypothesis 2a: Organizational climate has a significant positive effect on overall perception of patient safety.

### Hypothesis 2b: Organizational climate has a significant negative effect on frequency of occurrence of adverse events.

2.3 Effect of Organizational Climate on High Performance Work System and Overall Perception of Patient Safety

The mechanisms describing this effect are mainly explained under social theories and factors such as social exchange and organizational climate, which impact employees' perceptions and behaviors (e.g., Collins & Smith, 2006). Nevertheless, such propositions are still lagging behind the empirical evidence (Aryee & Law, 2007). Takeuchi et al., (2009) studied the mediating role of organizational climate between HPWS and outcome at the employee level in terms of attitude and satisfaction. They found that climate mediated the cross-level relationships of HPWS with job satisfaction and affective commitment.

There is possibility for the existence of other mediators through which HPWS influences outcomes (Ployhart, 2004). For example, Messersmith et al., (2011) showed that the outcome, which is the end result of performance, was influenced by the level of satisfaction and attitude that shape organizational citizen behavior (OCB). These attitudes were created among the employees as a consequence of HPWS activities. Thus, the relationship between HPWS and outcome was mediated by OCB rather than organizational climate. Whether organizational climate can act as a mediating platform between HPWS and performance (patient safety, in the case of health care sector) remains largely an unanswered question. Therefore, and as a contribution, the following hypothesis is tested.

# Hypothesis 3: Organizational climate mediates the relationship between high performance work system (HPWS) and overall perception of patient safety.

#### 3. Research Method and Research Framework

#### 3.1 Research Method

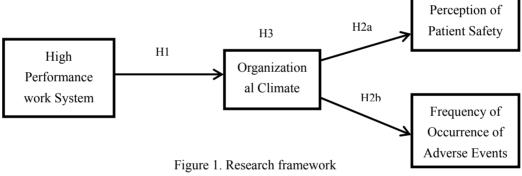
According to Vogus (2006), high performance work systems contribute to high quality outcomes for patients, particularly patient safety. He also argued that the impact of these high performance practices on patient safety

outcomes could be mediated by the interactions among the nursing staff on hospital units (Vogus, 2006). Meanwhile, Takeuchi et al. (2009) hypothesized that high performance work systems are linked to organizational climate. They claimed that HPWS, which is concerned with employees, concentrates on motivational or skill acquisition practices which are assumed to provide a sense that the organization cares about its employees' success and well-being.

Reports from the Institute of Medicine (IOM) emphasized that leadership is essential to achieving goals related to quality of care and patient safety. The impact of leadership is argued to be applicable to all levels of an organization including the executive managers to those working directly with patients (Page, 2004). Additionally, leadership, through its two-sided engagement between leaders and employees, helps to achieve a common goal (Northouse, 2012). It influences employees' behavior while simultaneously influencing their perceptions which ultimately lead to expectations of appropriate conduct that becomes incorporated into the organizational climate (Grojean et al., 2004). Within this complex interaction between various factors which affect patient safety, it is crucial for health care providers to consistently report events related to safety of the patients that are expected to empower a hospital's ability to learn from its experience (Tamuz et al., 2004). To encourage all staff to identify and report adverse incidents, it is necessary to raise awareness of employees about how to maintain safe environment for patients. In this context, the leaders are expected to play an important role in guiding and encouraging the staff to identify errors and adequately adhere to a transparent reporting system. To ensure success and continuity of this system, it should involve recognition of and rewarding the staff in return for their reporting (Coyle, 2005).

#### 3.2 Research Framework

Figure 1 presents the overall representation of the theoretical framework that depicts the relationships between leadership, HPWS, organizational climate, effective reporting system and patient safety. Based on the fragmented empirical evidence, the current study suggests a coherent model investigating these relationships in a single model.



#### 4. Data Analysis and Results

#### 4.1 Assumption of Normality

The normality used to indicate the symmetrical curve that has the greatest frequency of scores towards extremes in the small and middle frequencies. To do so, some researches such as Kline (1998) suggested assessing the normal distribution of scores for the independent and dependent variables through examining their skewness and kurtusis values. In social sciences, the nature of the constructs has many scales and measures may results skewed positively or negatively (Pallant, 2005). In addition, kurtusis is also a score for measuring distribution that represents the degree to which observations around the central mean are gathered.

According to Hair et al. (2006) the values of skewness outside the range of +1 to -1 are substantially skewed distribution. However, Kline (1998) suggested the cut off between +3 to -3 will be acceptable. Based on these criteria suggested by many researchers, the skewness values were within the acceptable range suggested by Kline (1998) (+3 to -3), however, not acceptable values according to Hair et al. (2006) (+1 to -1). Similarly, the values of kurtusis are suggested by Coakes and Steed (2003) to range from +3 to -3 which are acceptable based on the below Table 1.

Based on discussion above, the results show that some of values in skewness deviate from being normally distributed. Therefore, to be able to handle nor-normal and skewed data to test the hypothesized relationships, this study employed PLS Structural Equation Modeling that is the distribution free statistical modeling technique.

Table 1. Results of skweness and Kurtusis for normality test

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Recruitment/Hiring	-0.92	0.17	-0.53	0.33
Training	-1.33	0.17	0.88	0.33
Performance Appraisal	-0.70	0.17	-0.49	0.33
Job Security	0.24	0.17	-1.32	0.33
Idealized influence (attribute)	-1.37	0.17	0.63	0.33
Participation	-0.99	0.17	0.53	0.33
Idealized influence (behavior)	-0.62	0.17	0.21	0.33
Inspirational motivation	-1.00	0.17	2.00	0.33
Intellectual stimulation	-0.79	0.17	1.04	0.33
Individualized consideration.	-1.23	0.17	2.43	0.33
Effective Reporting system	-1.76	0.17	3.72	0.33
Organizational Climate	-0.27	0.17	-0.59	0.33
Occurrence Frequency of Adverse Events	0.46	0.17	1.13	0.33
Perception of Patient safety	-1.76	0.17	3.77	0.33

#### 4.2 Goodness of Fit (GoF) of the Model

To support the validity of the PLS model, GoF value was estimated according to the Using the formula, the GoF value was 0.598 obtained.

$$GoF = \sqrt{\overline{R^2 \times AVE}}$$
 (1)

Table 2. Goodness of fit of the model

Constructs	R square	AVE
Performance appraisal		0.71
Effective reporting system	0.72	0.70
High performance work system	0.59	
Individualized consideration		0.67
Idealized influence (attribute)		0.71
Idealized influence (behavior)		0.70
Inspirational motivation		0.79
Intellectual stimulation		0.75
Job security		0.93
Frequency of adverse events	0.12	0.59
Organizational climate	0.60	0.61
Perceived patient safety	0.40	0.68
Participation		0.75
Recruitment/hiring		0.82
Training		0.92
	0.48	0.74
Goodness of Fit (GoF)		0.60

A comparison was made with the baseline values of GoF (small = 0.1, medium = 0.25, large = 0.36). Table 2 shows that the model's goodness of fit measure was large, indicating an adequate level of global PLS model validity.

#### 4.3 Mediation Effect Analysis

A mediating variable is the variable that mediates the effect from an independent variable to its dependent variable. If the direct effect from variable X, such as, high performance work system (HPWS) to variable Y, such as, perceived patient safety (PPS), does not exist, but instead the effect exists indirectly through another variable M, such as, organizational climate (OC), then in this case M is a mediating variable (Hair et al., 2010). The position of the mediation variable in the model illustrated below.

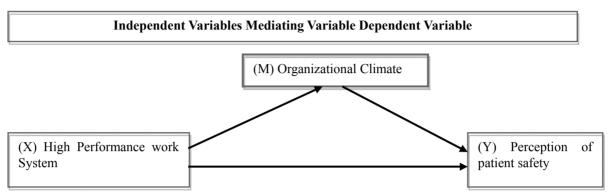


Figure 2. Mediation effect of organization climate

In this study, organizational climate was hypothesized as a mediating variable that mediates the relationship between high performance work system and perceived patient safety, as shown in Figure 3 and Figure 4. According to Baron and Kenny (1986), a mediator variable is a generative mechanism wherein the focal independent variable influences the dependent variable of interest. Mediation conveniently takes place where there is a significant relation between predictor and criterion variables. A mediator variable is considered as so if it develops an indirect effect through which the focal independent variable influences the criterion variable under study (Baron & Kenny, 1986). Moreover, the mediator variable is capable of transmitting some causal effects of previous variables on to the next ones. Furthermore, mediating variables have been playing a key role in both psychological theory and research. This type of variable enables the transmission of the antecedent variable's effect to the dependent variable and hence providing a clarification of the variables' relationships.

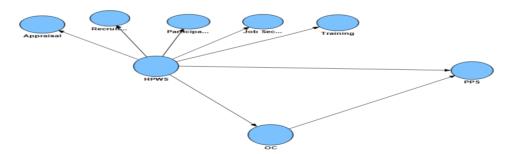


Figure 3. Mediation effect of organization climate  $(H_{12})$ 

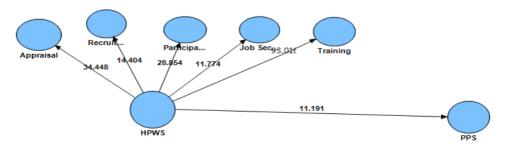


Figure 4. Mediation effect of organization climate (direct relationship [C])

Several methods have been used for the assessment of mediation in various researches in the past twenty years. A mediation analysis provides the identification of basic processes that underlie human behavior and that are significant throughout behaviors and contexts. To test the mediation of M, four conditions must be met: (a) X (predictor) is significantly associated with Y; (b) X (predictor) is significantly associated with Y (after controlling for X); and (d) the impact of X on Y is significantly less after controlling for M.

#### 5. Discussions

#### 5.1 High Performance Work System and Organizational Climate

We also found that high performance work system had a significantly positive impact on organizational climate. A similar result was reported by Li et al., (2011). Takeuchi, Chen, and Lepak (2009) also observed a similar finding among 324 managers and 522 employees in Japanese establishment.

Transformational Leadership theory is covering most of the favorable characteristics of organizational climate. In its essence, the transformational leadership includes Idealized Influence which includes instillation of pride, faith and motivations among followers; Idealized Influence which includes sharing of values and beliefs in addition to encouraging autonomy; Inspirational Motivation which encompasses creation of optimistic attitude and supporting challenges with confidence; moreover, triggering the innovative and problem solving capabilities through Intellectual Stimulation and lastly giving respect to individualized preferences through the Individual Consideration (Bass & Avolio, 1993). All these characteristics are expected to establish positive organizational climate-

#### 5.2 Organizational Climate and Overall Perception of Patient Safety

Result revealed that organizational climate had a positive significant influence on patient safety. A non-punitive organizational climate is expected to encourage reporting system. In a different study in Turkey, Bodur and Filiz (2010) found that the non-punitive climate was associated with perception of physicians and nurses about patient safety. Similar finding was also reported by Malloy et al. (2009) in their study that covered four countries (Canada, Ireland, Australia, and Korea). They found that nurses deprived of supportive climate usually had lower insight about safety climate.

According to the Transformational Leadership Theory, the inspirational Motivation denotes that the leader inspires the subordinates to have an optimistic attitude and pursue challenges with confidence, they learn to have confidence in their own ability (Bass & Avolio, 1995) this confidence which is perceived as part of the organizational climate would be in turn translated into trust of employees in ability of their health institute to face and handle adverse events in a way that would make patients more safer. In simple terms, the climate of trust created by the transformational leadership will be reflected on perception of the employees about patient safety.

#### 5.3 Organizational Climate and Frequency of Occurrence of Adverse Events (Patient Safety)

We found a negative impact of organizational climate on occurrence frequency of adverse events. This means that the better the organizational climate, the lower the frequency of occurrence of adverse events. This result is in line with previous studies. For instance, Seibert (2009) demonstrated that positive safety climate reduced the frequency of occurrence of anesthesia errors as it increased interaction with supervisors and peers.

In a quasi-experimental study to examine the effect of changing safety culture through educational intervention to encourage hand washing as an attempt to reduce nosocomial infection, Larson et al., (2000) found that the reported methicillin-resistant Staphylococcus aureus (MRSA) infections six months after intervention were significantly reduced in two mid Atlantic hospitals in the US. Others found also a significant relationship between organizational climate and the frequency of occurrence of needlestick injuries (Larson et al., 2000).

In addition to that, this relationship in line with theories such as transformational leadership which encompasses several dimensions that almost all converge into creating an organizational climate that probe health care professional towards behaviors and performance which bring down the frequency of occurrence of adverse events (Bass & Avolio, 1995). Specifically, under the Idealized Influence (behavior), the climate within which the followers are working is giving them adequate capabilities to make decisions and motivate them towards sense of the organizational mission which are all needed for daily work and provision of care with minimal errors; also, the optimistic attitude mixed with confidence under the Inspirational Motivation dimension and the acquired problem solving techniques under the Intellectual Stimulation are essential while working under stressful situation and when facing critical cases which needs appropriate reactions with minimal risk; which are ultimately expected to diminish frequency of occurrence of adverse events.

5.5 Mediation Effect of Organizational Climate on the Relationship between High Performance Work System and Overall Perception of Patient Safety

Researchers indicated that the observed effect of HRM practices on performance is usually mediated by organizational climate created by the HRM practices (Takeuchi et al., 2009). Based on the psychological background proposed by Stringer Jr. (1968), the HRM practices considerably shape motivation of the employees which is directly reflected on their behavior and performance (Lin et al., 1999). The mediating role of organizational climate was also empirically observed in their study in Taiwan. They found that when employees perceived that the organization appreciates and values their contributions through supportive HR practices, they usually respond reciprocally by demonstrating cooperative behavior. Similar result was also reported by Piercy et al., (2006). They examined the relationship between individual perception of an organization's concern for employees at the individual level of analysis to demonstrate a positive relationship between the shared perceptions of the climate of concern for employees and employee helping behavior at the business-unit level of analysis.

The finding of the present study contributes to the existing knowledge as the above studies were conducted in a different context. But regardless of the contexts, it seems that the effect of HPWS on organizational climate and subsequently on organizational performance (such as patient safety as one of the indicators of performance) holds true.

#### 6. Conclusion and Suggestions for Future Research

In conclusion, patient safety is still a substantial problem that affects both the health care system and the community in Saudi Arabia. Previous researchers tended to see the problem from a clinical point of view and less from the administrative side of it. Even if any, the latter studies tended to consider different factors in a disparate manner. Therefore the current study aimed at studying patient safety comprehensively from the administrative view. Hence, transformational leadership, HPWS, organizational climate, and effective reporting system were considered to have an influence on patient safety.

Result found suggests that transformational leadership determined positively HPWS, and these two variables had a direct significant impact on organizational climate, effective reporting system, and patient safety. Organizational climate was found to play a pivotal role in the model, as it had a direct significant impact on patient safety and frequency of occurrence of adverse events, and had a partial mediating effect on the relationship between HPWS and patient safety. Surprisingly, the study found a positive relationship between HPWS and frequency of occurrence of adverse events. Even though such contradiction is supported by previous research, further investigations are needed to explain why such finding occurs and if indeed it holds true in different settings and contexts.

The growing concern about patient safety is translated into several researches in developed countries where health institutions have different health care systems from developing countries (Al Rifai, 2008). According to the reports of the World Health Organization (WHO, 2004), health care systems in developing countries usually suffer from deficiencies in infrastructure and lack of skilled personnel and other quality issues. The situation is further exacerbated by the lack of effective reporting systems in addition to under reporting of medical errors and adverse events due to reasons related to the organizational characteristics (Parshuram et al., 2008). All these issues have important consequence on patient safety.

The official reports from authorities in Saudi Arabia indicated that adverse events in public hospitals represent a real problem which lay its shadow on the community (Arab News, 2012) as well as putting extra burden on the health facilities (Gulf/Saudi Arabia, 2012). The few researches conducted in Saudi Arabia showed that the medical errors were mainly attributed to faults of nursing practices (Al Harby, 2012). But scholars have also pointed out that patient safety is a shared responsibility of those with executive powers such as nurses' managers and top management (Roussel, 2006)

Future studies may also wish to test the research model on the individual level of analysis. Also, further researches are needed to study the relationship between HPWS and frequency of occurrence of adverse events to verify the inconsistency of the results.

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# Stress of Medical Practitioners in Private Healthcare Industry

Hassan Danial Aslam<sup>1</sup>, Rossilah Jamil<sup>2</sup> & Amber Tariq<sup>1</sup>

Correspondence: Rossilah Jamil, International Business School, Universiti Teknologi Malaysia, Level 10, Razak Tower, Universiti Teknologi Malaysia Kuala Lumpur, Jalan Semarak, 54100 Kuala Lumpur, Malaysia. Tel: 60-33-2180-5050. E-mail: rosillah@ibs.utm.my

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#### Abstract

Stress is a universal and inevitable component of life. The article reports findings of a study aimed to determine the sources of stress among medical practitioners in private hospitals. The context of the study is medical practitioners in private hospitals and clinics in Bahawalpur, Pakistan. Field study was conducted and primary data collection instrument was questionnaires. The questionnaire was based on five dimensions: workload, working conditions, role overload, sleep deprivation and unrealistic demands of the patients. The data was analyzed through statistical techniques using SPSS Version 16. Findings of the study revealed that sleep deprivation was the most important source of stress, followed by workload, working conditions, role overload and unrealistic demands of patients. The study provides a piece of evidence which may be used to illustrate the stress level of private practitioners in the healthcare industry in a developing country. Results of this study are useful to guide and inform healthcare management and policy measures.

**Keywords:** doctors, healthcare, occupational stress, Pakistan, private hospitals, source of stress

#### 1. Introduction

One of the most stressful occupations is healthcare practitioners (Aziz, 2004) due to their significant impact on human life (Rees, 1995). A cross-sectional and longitudinal study confirms that doctors experienced stress much above the threshold level compared to the general working population (Firth-Cozens, 2003). Studies have shown stress adversely impacts the physical and psychological well-beings of doctors (Burke & Deszca, 1986; Sonneck & Wagner, 1996). Considerable work has been done in the area of stress among healthcare practitioners throughout the world. However, most have focused in the European countries and very few have investigated the issue in Pakistan. It is widely acknowledged that developing countries lack appropriate standards and working conditions to ensure work-life balance. As such, this triggers the selection of Pakistan. The prime concern of the study was to reveal the true side job stress among doctors in Pakistan. Bahawalpur region was chosen as a representative city because it is one of the least developed regions in Pakistan in terms of working conditions and living standards. Findings originating from this context would contribute to management and policy suggestions. This topic is significant because of it leads to better provision of health services to general public which should be a very basic necessity in life. Against this backdrop, a study was conducted to investigate the sources and causes of stress among doctors in hospitals in Pakistan with a specific focus on those working in the private healthcare providers located in the region of Bahawalpur.

#### 2. Literature Review

Stress is defined as an 'adaptive response to a situation that is perceived as challenging or threatening to a person's well-being' (McShane & Glinow, 2010, p. 114). It is a result of the physical, mental and emotional strains exposed to a person due to his / her surrounding environment that exceeds his/her capacities to adapt. Stress occurs when there is an imbalance between demands and resources and an individual surpasses his / her professed ability to manage (Lazarus & Folkman, 1984). Research shows that work stress is a global phenomenon affecting the working population in North America, Europe and Asia (McShane & Glinow, 2010). Stress can be categorized into positive stress (i.e. distress) and negative stress (i.e. eustress) (ibid.). Long exposure to negative stress often results to job burnout which involves gradual emotional exhaustion, cynicism

<sup>&</sup>lt;sup>1</sup> Faculty of Management Sciences, Department of Management Sciences, The Islamia University of Bahawalpur, Pakistan

<sup>&</sup>lt;sup>2</sup> International Business School, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia

and loss of personal accomplishment (Maslach et al., 2001). Negative stress has been a major concern both in research and practice due to its adverse consequences to individuals and organizations.

Doctors are facing an increased pressure which directly impacts their performance (Caplan, 1994). Some of the factors that make doctor's life seriously stressful are the long hours, dealing with critically-ill patients, emergency and night calls, sustaining medical education and personal development, and aspiring for higher goals attainment (Shiwani, 2009). The stress will further worsen when the work environment provides lack of control over work environment, job recognition, inflexible organization structure, and monetary reward (Imtiaz & Ahmad, 2009). Lower job satisfaction and abandoning work owing to stress was highly complained by physicians and surgeons (Anthony, 2001). Stress may depend on the type of medical practice. Doctors who work in hospitals were found to experience higher levels of stress than those working in other healthcare areas such as private clinics (Lim & Pinto, 2009). Tyson and Pongruengphant (2004) in their 5-year longitudinal study involving in 14 private and public hospitals in Thailand conclude that those working in public hospitals generally reported more stress than their counterpart in the private hospitals. However, an earlier study by Tyler et al. (1991) found that nurses in both practices reported similar high level of stress. A decade-long of literature review shows that stress-related and mental disorder among doctors in China is highly prevalent particularly for public hospital doctors (Chen et al., 2013). The causes listed include workload, highly demanding patients, occupational risks, effort-reward imbalance and highly-competitive environment for promotion. Addiction to opioids remains the most common substance abuse among doctors particularly anesthesiologists (Bryson & Silverstein, 2008). Brooke et al. (1993) revealed that depression mainly due to work stress was one of the most frequent pathways leading to substance abuse among doctors.

The cause of stress (i.e. stressors) among doctors is a widely-researched topic (e.g. Maslach et al., 2001; Gray-Tofta & Anderson, 2002). Wong (2008) enlisted that doctor stress is caused by five factors: 1) job itself, the organization; 2) personal factors; 3) relationship with others; and 5) work-life balance. On a similar note, McShane & Glinow (2010) highlighted three most common stressors being: 1) harassment and incivility in the workplace; 2) work overload; and 3) low task control. Knowledge derived from the literature is used to develop the following research theoretical framework (Figure 1).

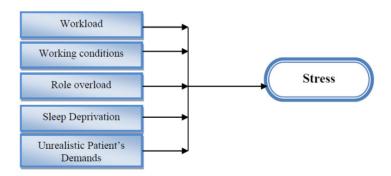


Figure 1. Model measuring the stress level among doctors

The first factor, workload, refers to the amount of hours and efforts required to perform tasks. The importance of this factor as a contributor to job stress among medical practitioners has been found by previous researchers such as Smith (2001), Happel et al. (2013), Gray-Tofta and Anderson (2002), Aziz (2004), and McGowan et al. (2013). Excessive workload reduces productivity and leads to stress. The second factor, working conditions, refers to various job relevant factors that directly or indirectly affect the job performance. These include basic pay, job hours, health and job security, recognition, benefits, and organizational culture and climate. Negative working conditions are detrimental to personal and organizational well-beings (Kaur et al., 2009; Khuwaja et al., 2004). For instance, unsupportive workplace climate (Happel et al., 2013) and depressing relationships with other doctors (Branthwaite & Ross, 1988) has been found as causes of doctor's stress. Right working condition is crucial since it affects practitioners' job satisfactions and consequently the service they provide to patients (Stanowski, 2009). Thirdly, role overload refers to the extent to which an individual regards him or herself being pressured due to multiple commitments and responsibilities (Reilly, 1982). It includes professional and personal life roles. Role overload contributes to an increased workload. Role overload is different from role conflict and role ambiguity. Role overload as an important contributor to job stress has been found by previous researchers such as Branthwaite and Ross (1988), Cooper et

al. (1989) and Maslach et al. (1997). The fourth factor, sleep deprivation is also one of the important sources of stress (Khuwaja et al., 2004; French et al., 2001). This is caused by their long hours and the need to be on-call. A study in Pakistan showed that sleep deprivation is a very common problem among doctors and badly affects their work performance, physical and mental health (Mustahsan et al., 2013). Doctors who did not get enough sleep were more prone in making medical errors, experienced mood-related symptoms, personality changes and other health problems (ibid.). And the fifth factor, unrealistic expectations from patients also a contributor to stress in doctors (Kushnir et al., 1997; D. Bonn & J. Bonn, 2000; Hayter et al., 1996). Edwards et al. (2002) has given example that patients sometimes expect doctors to spend longer time examining them. Another example includes expecting doctors to completely cure their diseases. From these findings, the following hypotheses are developed. Against the backdrop of these literatures, the following hypotheses are developed:

H0: There is no significant relationship between workload and stress level among doctors.

H1: There is a significant relationship between workload and stress level among doctors.

H0: There is no relationship between working conditions and stress level among doctors.

H1: There is a relationship between working conditions and stress level among doctors.

H0: There is no relationship between role overload and stress level among doctors.

H1: There is a relationship between role overload and stress level among doctors.

H0: There is no relationship between sleep deprivation and stress level among doctors.

H1: There is a relationship between sleep deprivation and stress level among doctors.

H0: There is no relationship between unrealistic patient's demands and stress level among doctors.

H1: There is a relationship between unrealistic patient's demands and stress level among doctors.

#### 3. Methodology

The subjects in the present study consisted of doctors and medical practitioners of the private hospitals and clinics in Bahawalpur, Pakistan. The data was collected through survey method in which the questionnaire was mailed to 250 doctors and practitioners. A total of 235 questionnaires were returned in which 223 (89%) were found correct and utilizable. The questionnaire consisted of 24 items representing 5 dimensions of stress: sleep deprivation, work overload, working conditions, role overload and unrealistic patient's demands. Responses were recorded against a five-point Likert scale comprising of 1=strongly agree; 2=agree; 3=uncertain; 4=disagree; 5=strongly disagree. The respondents were asked to respond on each of the item and indicate the degree to which each of the items on the questionnaire contributed to stress on the Likert scale. The questionnaire was adapted from Nayak (2008). The result for Cronbach Alpha for the 24 items on the questionnaire determining sources of stress was 0.805, designating high level of internal consistency of the scale.

# 4. Findings and Discussion

The mean, standard deviation and variance were obtained using SPSS. The highest mean score items were workload (3.124), working environment/conditions of the hospital (3.104), and deprivation of sleep (3.101). The items with lower mean scores were monotonous routine (2.21), norms and expectations (2.13), and unrealistic hopes to the patients (1.91). The analysis of the impact of stress variables on doctors through coefficient of correlation was: workload showed a relatively strong positive significant relationship with stress with correlation value of 0.665 at 0.000 significance value. Working conditions showed a positive significant relationship with stress among doctors with correlation value of 0.589 at 0.000 significance value. Role overload showed a moderately significant relationship with stress with correlation value of 0.512. Sleep deprivation showed strong positive correlation value of 0.775. The last dimension unrealistic patient's hopes showed low positive correlation with stress with a value of 0.219. On the basis of the above results obtained from correlation, our alternate hypothesis H1, H2, H3, H4, H5 are accepted.

Table 1 represents the model summary. The value of R that is the correlation coefficient value is used to measure the linear association between variables. The value of R in the model summary (Table 1) is 0.850, which shows that there is a strong linear relationship between the variables. R square is known as coefficient of determination and measures the total variation in the dependent variable that is explained by the relationship with the independent variable. The value of R square in the model summary is 0.730 which means that the 73.0 percent of the variation in dependent variable (stress) is explained by the relationship between independent variables (workload, working conditions, role overload, sleep deprivation and unrealistic patient's demands).

Table 1. Model summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.850a	.730	.724	.47545

Table 2. Analysis of variance<sup>b</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	161.783	5	32.117	137.252	.000 <sup>a</sup>
Residual	56.289	218	.234		
Total	218.072	223			

a. Predictors: (Constant), Workload, Working Conditions, Role Overload, Sleep Deprivation, Unrealistic Patient's Demand;

b. Dependent Variable: Doctor Stress.

Table 2 highlights the regression results through ANOVA table. F-statistics in the ANOVA table shows a value of 137.252 which means that there is a statistical significance of the relationship between dependent variable and the independent variables when taken in the form of group. It is obtained by dividing the mean square of regression to the mean square of residual. The significance of this value is mentioned in the next column of the ANOVA table that is 0.000 which depicts highly significant relationship.

#### 5. Discussion

The study aimed to determine the factors that caused stress in doctors and medical practitioners in private hospitals. The study showed that workload was the most important stressor for the doctors with a mean score value of 3.124 and a correlation value of 0.665. Based on this the first hypothesis is accepted. The second dimension, working conditions showed a mean score value of 3.104 and correlation value of 0.589. Hence, the second hypothesis is also accepted. The third dimension, role overload, also showed a positive significant relationship with stress with correlation value of 0.512, thus, leads to the acceptance of the third hypothesis. Fourthly, sleep deprivation also reported a strong positive correlation value of 0.775 which suggests that the dimension is a strong stressor for the doctors. Lastly, unrealistic patient's demand dimension shows a weak correlation value of 0.219. This result shows that there is a low positive correlation between unrealistic demands of the patients and stress among doctors. Despite of the weak correlation, the hypothesis H5 is also accepted due to its positive relationship. The study shows that the five dimensions are important stressors of doctors in private doctors in the Bahawalpur region in Pakistan. These findings concur with earlier studies (e.g. Gray-Tofta & Anderson, 2002; Aziz, 2004; Smith, 2001; Happel et al., 2013; Agdelen et al., 2010; Cooper et al., 1989; Branthwaite & Ross, 1988; Maslach et al., 1997). Comparatively, this suggests that the stressors of medical practitioners have been somewhat standard and consistent throughout the world regardless of the types of healthcare providers. It is interesting to note that out of the five factors included in the study, unrealistic patient's demand only records a weak correlation value. Since perception towards this factor is most likely stemmed from the kinds of patients that the respondents dealt with, it may be assumed that the respondents covered in the study may not have been exposed to difficult and demanding patients.

#### 6. Conclusion

The article has reported findings of a study which aims to identify the sources of stress among medical practitioners in Pakistan with a specific focus of the Bahawalpur region. The study revealed that all five factors contributed to the respondents' stress. Sleep deprivation showed a strong positive correlation with stress (0.775), workload ranked second (0.665), working conditions ranked third (0.589), role overload was fourth with (0.512) and unrealistic patient's demands ranked with a low positive correlation value (0.219). Hence, all alternate hypotheses H1, H2, H3, H4, and H5 were accepted. The study provides a piece of evidence to describe the stress level in the context of a developing country. To further understand this issue, future studies can be conducted to explore stress coping strategies among the practitioners. Comparative studies between private and public hospitals in the country are also useful to analyze the *what* and *how* stress affects the well-being of the practitioners. Results of this study are useful to guide and inform healthcare management and policy measures. It highlights the actual scenario regarding job stress in the medical profession. Since this group is very prone to job stress, appropriate standards and interventions particularly in those five factors must be implemented by relevant parties to create an environment of healthy work-life balance. Being a developing country, it is understandable

that lacks of systems and scarcity of talents are common challenges in the nation development. In this landscape, issues such as employee welfare may be easily compromised and fallen into a less priority area. However, it is crucial to remember that this issue should not be taken for granted as stress is a silent killer which directly and indirectly affects the economic and social health of many parties.

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# Developments of and Challenges to Basic Research Funding in Science and Engineering Sectors of Korea: The Role of National Research Foundation of Korea (NRF)

In-Soo Han<sup>1</sup>, Hwa-Yong Ahn<sup>2</sup>, Byung-Whan Ho<sup>2</sup> & Keun-Yeob Oh<sup>3</sup>

Correspondence: Keun-Yeob Oh, Department of International Trade, Chungnam National University, Daejeon, Korea. Tel: 82-10-2558-7805. E-mail: kyoh@cnu.ac.kr

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#### **Abstract**

Today, Korea faces a new challenge in the field of basic research: the country has attained a goal in terms of the amount of growth, but it needs to improve its quality of research. Korean researchers need to demonstrate excellence in their research, a far more critical issue than the number of papers published. Considering the current research ability in the country, they also need to show more creativity and forge better links with business.

This paper calls for a new policy on research within basic science and technology, at a turning point in the history of research funding in Korea. In particular, it explains the development of research funding focusing on the NRF's role, discusses the performance of and some problems in research funding, and finally makes recommendations for an NRF funding policy that could usher in a new era of research excellence in Korea. We hope this paper will help construct a theoretical framework for a basic research funding system for science and technology in Korea. In addition, we expect this paper will give some practical guidance for other developing countries trying to foster R&D capabilities in basic science.

**Keywords:** basic research funding, basic science and technology, research grant, National Research Foundation of Korea, NRF, Korea

# 1. Introduction

Korea obtained an outstanding economic growth during last fifty years, which often described as a miracle. After the Korean war of the early 1950's, Korea was standing almost on nothing, but now per capita GDP is much higher than twenty thousand dollars and the size of Korean economy ranks 11~12th in the world. Korean economy is now considered by many developing countries as their role model.

This miracle would have not been possible without the technology development and R&D expenditures of public and private sectors. Actually the export items of Korea were limited to clothing and wig in 1960s, but now high tech like telecommunication, semiconductor, LCD became main exporting industries for Korea. (Han & Oh, 2013; Han et al., 2012)

Considering that the competitiveness of the products depends on the science and technology, Korean government put big R&D investment into science and technology area since 1970s. In particular, Korean government has been putting a lot of money into the basic science area as well as applied science area. In 1977, KOSEF (Korea Science and Engineering Foundation, now renamed as NRF) was established and it became to a large and important organization for the R&D in Korea. NRF has various programs for supporting the research of Korean researchers and total budget size of NRF is more than 3.7 billion dollars as of 2014. As a results of the efforts, SCI papers, one of the index for the research level, ranked 11th in the world in 2012 while it was 18th in 1999 (MSIP, 2013).

Nowadays, Korea faces a new challenge for the basic research area. That is, Korea attained a goal in terms of quantity growth but it needs a take-off for the research quality. Korean researchers should show the excellence of

<sup>&</sup>lt;sup>1</sup> Department of Business Administration, Chungnam National University, Daejeon, Korea

<sup>&</sup>lt;sup>2</sup> National Research Foundation of Korea, Daejeon, Korea

<sup>&</sup>lt;sup>3</sup> Department of International Trade, Chungnam National University, Daejeon, Korea

the research which is something more critical than the number of published papers and should show more creative ideas and businessization based on the accumulation of research ability.

This paper looks for a new policy for the research of basic science and technology at the turning point of research funding history in Korea. In particular, we explain the development of research funding history, focusing on NRF's role, and we discuss the performance and some problems in research funding and finally suggest the recommendations for funding policy of NRF toward the new era of research excellence in Korea. We hope this paper can contribute to construct a theoretical framework of the basic research funding system for the science and technology. In addition to this, we expect this paper can give some practical guidance for other developing countries trying to foster R&D capabilities in basic science.

#### 2. Development of Basic Research Funding in Korea

2.1 Establishment of KOSEF and Individual Research Funding

#### 2.1.1 Establishment of KOSEF (1977-)

Since 1960s, Korea has invested for the science and technology under the recognition of the importance and necessity of science technology, and the establishment of Korea Institute of Science and Technology (KIST) of 1966 was the first step toward this direction. However the initial focus of R&D was on the development of manufacturing technologies at that time. Afterwards, Korea recognized the importance of basic technology and science as the Korean industry was getting more capital and technology intensive. Accumulation of the research in basic science & technology in the universities and research institutions was considered as necessary for further long term development of Korean economy and industry.

This was the background for Korean government to establish Korea Science and Engineering Foundation (KOSEF) in May of 1977. This institution modeled on National Science Foundation (NSF) of America. The establishment of the foundation seemed to have been a big step for the infrastructure for the basic research. At first, however, the size was very small; research fund was only 418 million KRW (about US\$408,000) in 1978.

#### 2.1.2 The Individual Research Funding (1978-)

The first funding program for the basic science by KOSEF was the support for the individual researcher. The researchers in the university and other research institutions applied for the grant and KOSEF evaluated the proposals and some of the proposals were selected to be financially supported. At first, the one-year project was supported, but it was extended soon to support the up to three-year projects.

There were two kinds programs; general researcher program and young researcher program. The former was encouraging the basic research and extending the research base. The latter was for the new researchers who got the job in the university after getting Ph. D. and supported for the settling down in the new environment.

# 2.2 The Co-research Funding (1982-)

In 1982, Korean government started a new funding program for the co-research projects. Particularly, the research project in urgent need at national level was funded, and thanks to this, cooperation among academics, industry, and research institution were encouraged. At that time, semi-conductor, computer, fine chemistry, mechanical engineering, energy and natural resource, system industry, bio engineering, fiber polymer material, construction, and environmental industry were designated as the core and urgent nine areas for the intensive support. Korean government put all the resources for this project and hoped to be able to accumulate the research experience and to rise up the competent researchers. In addition, a little bit larger size groups of five to six people were supported since 1986, and labor charges for the post-doctoral and Ph.D. students and master students could be paid from the research grant, which could encourage the training of next generation researchers.

# 2.3 The Group Research Funding (1990-)

# 2.3.1 Science Research Center (SRC) and Engineering Research Center (ERC) (1990-)

From 1990's, KOSEF began to support the establishment of research centers in the universities in order to encourage basic research the long-term. The projects were trying to centralize the research manpower in a center of the universities by the areas and encourage the basic science research and develop the man power. Actually, this project was benchmarking STC (Science Technology Center) and ERC (Engineering Research Center) of NSF (National Science Foundation) in U.S. which was considered very successful. KOSEF used same names SRC and ERC for the projects.

The SRC (Science Research Center) was trying to support the high quality paper publications, which might

enable the deep and creative research in the basic science area. ERC (Engineering Research Center) was founded for the basic research in the area of high tech industry. This ERC project supported the original technology of international level and encouraged the interdisciplinary research based on the cooperation of academic-industry with the hope of improvement of the international competitiveness of the industries. These research center projects are evaluated to have contributed a lot for cultivating the researcher group, for helping the basic research, and university-industry cooperation.

Since this decade, research funding by KOSEF has been categorizing into two areas; individual research programs and group research programs.

#### 2.3.2 Regional Research Center (RRC)(1995-2004)

In 1995, KOSEF launched another funding program; RRC (Regional Research Center). This project funded the universities in non-capital (Seoul) area and established research centers there. Basic and applied science research related with the core industries of the local areas was funded by RRC of KOSEF. This RRC is specialized for the research helpful for meeting the local industry needs and tries to transfer the technologies developed by the research to the industrial side. RRC project had an additional program; when the firms asked the centers to develop the specified technology for them, the R&D costs for development had to be paid for by the firm themselves.

A unique characteristic of this project was the technology development for the industry. It might not accord with the original mission of KOSEF, which mainly foster the basic science research. For this reason, this project eventually moved to under the control of MTIE (Ministry of Trade Industry and Energy) which has the power of controlling over all the industrial technologies in 2004. Afterwards, this project was renamed as RIC (Regional Innovation Center) and has been in progress until now.

#### 2.3.3 MRC (Medical Research Center) (2002-)

From 2002, KOSEF launched MRC (Medical Research Center) program and funded the basic research which could be used for bio-engineering and clinical medicine areas. This program was founded for the purpose of supporting the basic medical science by funding the medium- and large sized, long term research and development in medical sectors.

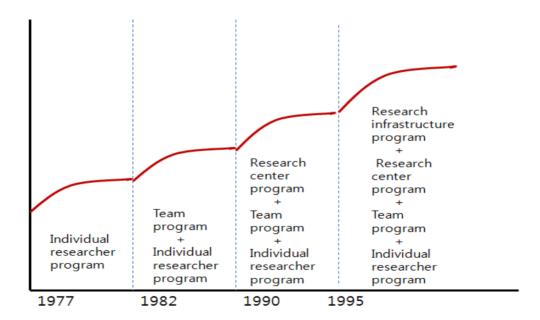


Figure 1. Developments of basic research funding by KOSEF

# 2.3.4 NCRC (National Core Research Center) Program (2003-)

In addition, NCRC (National Core Research Center) program was launched in 2003, which was going to encourage the development of the converging technology for future. The annual budget of KRW 2 billion (about US\$ 195,000) was funded to the each selected centers for 7 years (4+3 years).

#### 2.4 Support for the Research Infrastructure (1995-)

In 1995, a program for building of the research infrastructure was launched. Very expensive machines, materials, research database which individual researchers could not buy by self-payment were purchased by using the fund, concentrated in one facility and shared by researchers. Actually this project supported some core universities specialized on certain disciplines.

This program consisted of three sub-projects; supports for the specific research material banks, supports for the specialized research information centers, and the supports for operation of high price machines and equipment's for research. Now the first two programs are underway.

Figure 1 illustrates the development process of basic science funding program by KOSEF, which added new programs sequentially.

#### 2.5 Extensions and Deepening of Individual Researcher Programs

In addition to the development stages shown in Figure 1, there have been many horizontal and vertical evolutionary progresses in the funding programs for the individual researchers. These advances were based on the necessities for upgrading the capabilities of individual researchers

# 2.5.1 Funding for Researchers in Local Area and Female Researchers

Since 2000, new funding programs for the basic research by the researchers in local area (non Seoul area) and female researchers have been introduced. This project was launched by the recognition that the researchers in local areas and female researchers have been less represented as grant receiver compared with the portion of those researchers in the whole country and they were suffering from unequal support. According to Han et al. (2013), the share of research fund for regional researchers was only 40% of total NRF research fund while they accounted for more than 60% of university education in terms of the number of students and professors. And the female researchers account for only 17% of researchers of science and engineering area in the universities and the research institutes including government sponsored and private. Furthermore, only 13.2% of the research fund goes to female researchers (Han et al., 2012).

# 2.5.2 Leading Researcher Program

The next concerns of KOSEF were to support the distinguished individual researchers who could lead the academics in future. KOSEF liked to support those researchers in longer and larger view. Therefore, two new programs, 'Creative Research' of 1997 and 'National Scientists' of 2005 were designed for those purpose. The former aimed at discovering next-generation researchers and fostering them to become global leaders. The latter was supposed to support distinguished researchers to become key players in their specialized fields.

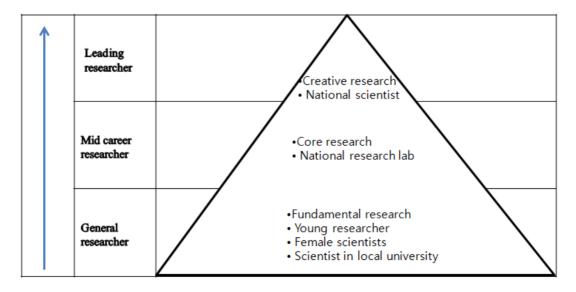


Figure 2. Building life cycle support system for individual researcher in basic research

Source: MSIP (2013a).

Funding term was 9 years long (3+3+3 years) for Creative Research and 10 years (5+5 years) for National Scientist. KRW 500~800 million (US\$ 488,000~780,000) per project (Creative Research) and KRW 1.5 billion (US\$ 1.46 million) (National Scientist) were granted. In Creative Research, low 15% were dropped out of the funding through the evaluation process in every three years. National Scientist project selected and supported one or two scientists every year.

#### 2.5.3 Systemization of Funding Programs for the Individual Research

In 2009, KOSEF which had supported the researcher in science and engineering fields merged with another funding organization, KRF which focused on pure natural science and humanity or social science area. A new body was named as National Research Foundation of Korea (NRF). This merge was a turning point for systemization of the support programs for the individual researchers. That was so called 'support for whole life cycle of research'. Figure 2 shows those stages from General researcher program via Mid-career researcher program to leading researcher program.

#### 3. Changes in Governance for Basic Science Research Funding

#### 3.1 KOSEF

Since 1960s, KOSEF had had a critical role in developing science and technology. But its actual functioning had been under the control of Korean government, as Korean economic development was initiated by government. Fostering Science and technology in Korea was also initiated by the Korean government and it can be called 'government-driven'. In 1967, Ministry of Science and Technology (MOST) was established and this ministry planned a lot of programs for science development in Korea. So it can be said KOSEF was under MOST's control in that MOST provided the budget to KOSEF, and KOSEF had played a role to execute planned programs by using the money.

#### 3.2 Korea Research Foundation: KRF

In 1981, Korea Research Foundation (KRF) was established under Ministry of Education (MOE). KRF was basically supposed to support humanities and social sciences area. This foundation also supported some basic science area related with cultivating the manpower. In 1999, some programs of KOSEF supporting basic science in science and engineering area moved to KRF. As a result, support for basic research in science and engineering had been done by dual system of KOSEF and KRF.

#### 3.3 National Research Foundation of Korea: NRF

In 2009, the dual system of KOSEF and KRF ended since there was the merge of two control towers. MOST and MOE merged together into Ministry of Education and Science Technology (MEST). As a result, the funding organizations, KOSEF and KRF also merged into National Research Foundation of Korea (NRF). NRF now is the only foundation even after MEST split up into two ministries again after the new government launched in 2102, as shown in Figure 3.

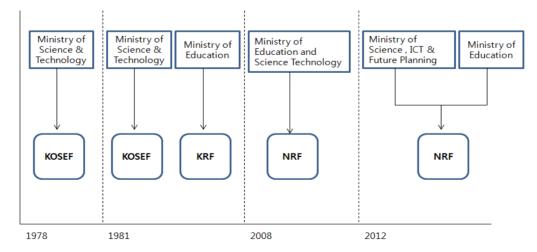


Figure 3. Changes in governance system for basic research funding

#### 3.4 Dual Regulation for Basic Research Funding

In 2012, Park's government reorganized the ministries and separated MEST into two ministries; Ministry of Science, ICT & Future Planning (MSIP) and Ministry of Education (MOE). One of the reason for the split was they thought that MEST did not do very well in concentrating the resources for science and technology. But NRF keeps one body even after the separation.

#### 4. Performances and Problems in Basic Research Funding

#### 4.1 Performances of Basic Research Funding

Korea has been focusing on R&D compared to her economic size. The share of R&D expenditure is 4.36% of GDP, which ranked first in the world in 2012 (OECD, 2014). Of course most of this R&D is from industry side even though the investment for the basic research has been increasing persistently since 1970s. But, the ratio of basic research expenditure is only 18.1% of the average of OECD advanced countries. The ratio of the investment for each area 'basic, applied, and development' is 18:20:62, respectively (MSIP, 2013b). Roughly speaking, the expenditure for the basic research is not enough and it needs to be increased. Furthermore, R&D spending for basic research performed by higher education and government sectors accounts for only 20.6%, 21.8% respectively of domestic expenditure on basic research, as illustrated in Figure 4. (OECD, 2013). This seems to reflect the short history of science and technology in Korea.

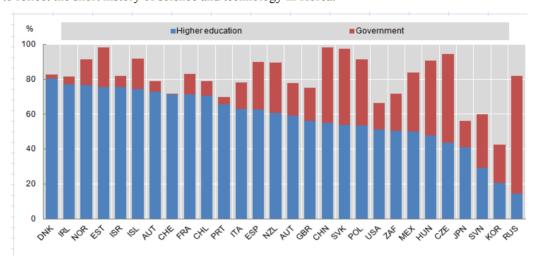


Figure 4. Basic research performed in the higher education and government sectors, 2013: As a percentage of domestic expenditures on basic research

Source: OECD (2013), Research and Development Statistics Database, www.oecd.org/sti/rds, June

But, Korean government recently came to recognize the importance of the basic research and tries to increase the investment for this area. Table 1 indicates that the share of basic research in the government fund increased from 25.6% in 2008 to 35.4% in 2013 (MSIP, 2013b).

Table 1. Share of basic research in government research fund

	2008	2009	2010	2011	2012	2013	growth rate
Basic research KRW)	(100mil <sub>18,440</sub>	24,899	30,017	34,182	38,951	40,590	17.1%
Share	25.6%	29.3%	31.1%	33.1%	35.2%	35.4%	-

Source: MSIP (2013b).

Figure 5 shows the trend of the share of basic research since 1978 when KOSEF was founded (NRF, 2014). unit: KRW Mil.

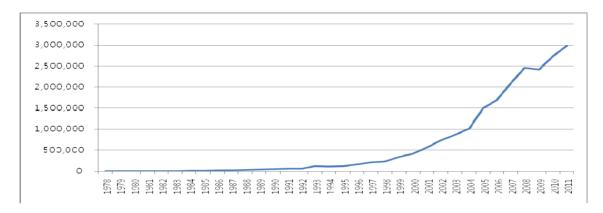


Figure 5. The trend of research funding by NRF (1978-2011)

Source: NRF (2014).

As shown in the Figure 5, research fund had increased a lot after 2000, which resulted in the budget of NRF 3,000 billion KRW (about 3 billion dollars) in 2013. 1/3 of this amount was spent for basic research.

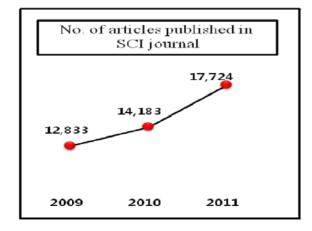
Thanks to the sharp increase in the research expenditure, the number of the papers published in SCI journals have been increased a lot. In the Table 2, we can find that 44,718 papers were published in SCI level journal which means that Korea ranks 11th in the world in terms of the number of the papers (MSIP, 2013b). Top 1% of most frequently cited papers are 1,268 which ranked 15th in the world. (Table 3).

Table 2. Number of SCI papers and ranking (%)

	2006	2007	2008	2009	2010	2011
no. of papers (rank)	28,436(11)	27,420(12)	35,662(12)	38,776(12)	39,834(11)	44,718(11)
no. of cited (rank)	2.93(31)	3.11(31)	3.30(30)	3.49(30)	3.57(30)	3.77(30)

Source: MSIP (2013b)

If we focus on the NRF of Korea, the number of papers published with research funding from NRF, increased from 12,833 in 2009 to 17,724 in 2100, indicating the growth rate of 38%. In particular, the number increase from 2,071 to 2,539 during same period if we focus on the top 10% high level journals in terms of impact factor (MSIP, 2013b).



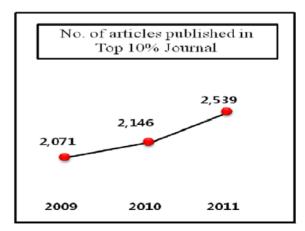


Figure 6. The Increase of articles published in SCI Journals by fund recipients

Source: MSIP (2013b).

#### 4.2 Problems in Basic Research Funding: From Quantity to Quality

Even though the number of published papers increased a lot, Korean researchers have long way to go in the view of the quality. Table 2 shows that Korea ranks 11th as for the quantity but ranks 30th as for the citation of those papers (National Science and Technology Council, 2012). In addition in the Table 3 we could see the top 1% cited papers were only 0.77%.

Table 3. Top 1% of most frequently cited papers

	U.S.	U.K.	China	Japan	Swiss	Korea
Number (rank)	29,828(1)	8,735(2)	5,998(4)	3,082(10)	2,915(11)	1,536(15)
Share	1.79%	1.81%	0.86%	0.82%	2.62%	0.77%

Source: National Science and Technology Council (2012).

The more serious problem is that the research results have not successfully gone to the next stage of the R&D, say, technology transfer, businesszation, and business startup. Commercialization of the technologies developed from the research is very important for the economy; converting from the technology to wealth. But Korea is not that satisfactory in this sense compared to the more advanced countries. For example, the rate of technology transfer from universities among total technology transfer is just 16.4% (2011) in Korea, which is much lower than those of other countries cases such as 18.9% for Japan (2011), 25.4% for US (2010), and 25.2% for EU (2007), respectively (NRF, 2013).

Thus, the urgent tasks which NRF has to tackle now as to basic research funding can be summarized as two. The one thing is to make the quantitative outputs up to the qualitative performances. Another one is to support the transformation of the results from basic research to industrial use. NRF has to establish the appropriate policies and measures to support for these goals.

#### 5. Recommendations for Policy Change in Basic Research Funding by NRF

As mentioned above, the task of NRF today is how to create the high quality outputs rather than just increasing the number of papers. NRF needs to re-engineer the programs and other supporting measures for this purpose. Some fundamental changes can be suggested in the following directions.

#### 5.1 From Program Funding to Block Funding

Traditionally, research funding policy were made by the bureaucrats of Ministry (now, Ministry of Science, ICT and Future Planning or Ministry of Education) in Korea, and NRF implemented the policies by the authorization of Korean government. Therefore NRF could not make any programs or projects in the systematic way by itself. In addition, all the programs belong to a certain department of the ministry and the programs are supervised by the technocrats in each department.

This structure has the following problems. First, there could be the rigidity of using the budget and they could not respond quickly to the change in research funding demand. The budget for funding was locked up in a program and could not be transferred to other programs with budget crunch. It looks like many ponds of fund are there separately instead of a big and integrated lake. This could be barrier for getting appropriate use of the fund when there is a change in the situation. For example, the selection rates were 29.4% for the 'general researcher program' and 8.8% for the 'upper level researcher program' of 2013 (NRF, 2014). For the leading researcher program the ratio of selected proposal was only 2.0%. This unbalance happened because flexible budget allocation among NRF programs had not been allowed until now.

Second, research funding was done based on programs not on academic disciplines. Thus it was not so easy to consider the idiosyncratic characters of each area. Overall, it is not too much say that the current funding system of NRF is supplier oriented system rather than recipient oriented system.

How to solve this problem? One of the solutions could be block-funding which many advanced countries already adopted (Chon & Cha, 2011; AGDE, 2014). The government has control the total budget of research funding and allows NRF the autonomy to decide allocation of the fund among programs. This method has a couple of merits. First, NFR can respond easily when there is any change in circumstance. Second, thus, more efficient use of the budget will be possible. Third, each area of academic disciplines will be able to have their own portfolio for the expenditure.

#### 5.2 From Program-based Funding to Discipline-based Funding

Under the existing system of the research funding, NRF cannot consider the specific characters of each different academic area because of the uniform and rigid system in terms of each grant size and length of research period. For example, researchers in math area does not need very big money while some other areas need to buy quite expensive machines and materials even though both areas are classified as same area in the name of basic natural science. Now a new system for NRF can be offered as shown in Figure 7 which focuses on the transition from program-based funding system to discipline-based support system.

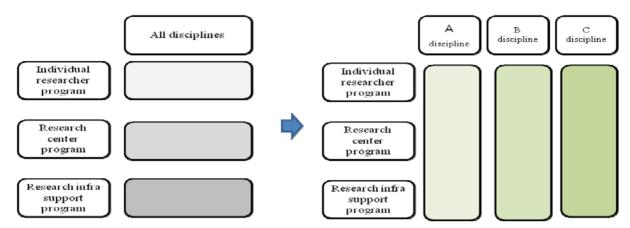


Figure 7. Transition to discipline-based support system

This new system will make NRF possible to develop the customized system meeting the specific needs of individual discipline (NYSCA, 2014). For the transition to new system, some supplementary action is needed in NRF like establishing a new 'committee for basic research fund operation'. The committee consists of experienced members in budgeting and can settle the conflicts on budget between disciplines. In addition, the experts in individual area should be able to plan the funding strategy and customized programs in their own disciplines.

#### 5.3 From Designated Mechanism Mode to Responsive Mode

Funding methods for the programs should also change. The current funding method depends on so called designated mechanism mode. That is, the size of the fund and length of the research period are fixed depending on the programs. Change to a responsive mode funding need to be pursued to give researchers more flexibility and autonomy. Responsive mode means that research fund is provided on researcher's demand. Responsive mode is for unsolicited research proposals submitted by anyone eligible to apply to foundation for funding at any time and in any field of research relevant to foundation's remit (EPSRC, 2014).

Then, researchers can do their research in self-directed way and research funding would be possible in very various ways. For example, in the general research program, the funding rules for mathematics area have been same as other areas. Selection rate was uniformly about 25% and the size of the grant was fixed at 50 million KRW (US\$48,800). In contrast, under the new responsive mode funding, size of the grant could be flexible from 10 million (US\$9,800) to 50 million KRW and the selection rate can be increased up to 45% in mathematics area.

#### 5.4 From One-time Funding to Continuous Renewal Funding

In the current NRF system, if one researcher wants to continue his (her) research topic, then he (she) has to make another new proposal and apply for another time with that. It could be time consuming and unduly burdensome for the researchers to write a new proposal even though the proposal is just for the continuation of the research. This situation can be avoided appropriately by adopting research renewal system based on the performance of the previous research. If the current research shows good performance, then the researcher can pursue identical research topic by submitting of a very brief and simple application (NSF, 2013). This would make possible the long term and high quality research.

As a matter of facts, this new system was already introduced in NRF in 2012 (MSIP, 2013a). As shown in Figure8, researcher who finished successfully the 'general research' could be funded up to another 3 years and

can apply for the 'core research' of 'mid-career research', of which the research grant is larger than general research. Some excellent projects are going to be funded for another 3 years and can apply for the next step program, 'leap research'. After this, distinguished researchers can renew two times more in the 'leap research'. Theoretically, researchers can be funded up to 21 years by one topic in this new system; general research for 6 years (3+3), core research for 6 years (3+3), and leap research for up to 9 years (3+3+3).

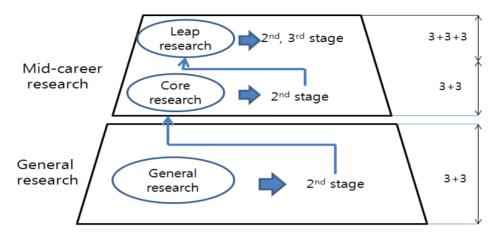


Figure 8. Continuous renewal funding for distinguished research plans

Source: MSIP (2013a).

#### 5.5 From Program Based Organization to Discipline Based Organization

Organizational structures of NRF also need to be changed a lot for realizing all the suggestions explained above. NRF's current organization is basically program-based organization. But this system should be changed to discipline-based organization and this new organization should take charge of entire cycle funding activities (planning, executing, and evaluating) by disciplines. Of course, for the effective functioning of this new system, the expertise of NRF staffs should be strengthened, in terms of academic disciplines as well as project management. NRF needs to have a systematic and long term plan for how to level up the job competencies of staffs. Competency modeling and career development plan (CDP) for the staffs are requested. Table 4 summarizes all the issues above.

Table 4. Transformation of basic research funding by NRF

	<b>0</b> ,	
	As-is	To-be
Funding	Program funding	Block funding
Budget	<ul> <li>Program based</li> </ul>	<ul> <li>Discipline based</li> </ul>
Funding	<ul> <li>designated mechanism mode</li> </ul>	<ul> <li>Responsive mode</li> </ul>
Administration	• one-time	<ul> <li>Continuous renewal</li> </ul>
NRF organization structure	<ul> <li>Program based</li> </ul>	<ul> <li>Discipline based</li> </ul>

# 6. Conclusion: Waiting for a First Nobel Prize Winner

This paper dealt with the development of NRF's basic research funding and its role in boosting science and technology in Korea. Performances it has achieved and the problems it encounters were also discussed. Finally, based on these discussions, recommendations for needed changes in basic research funding in NRF were suggested.

In the paper, a transition from the quantitative performance to the qualitative performance is emphasized. Particularly, improvement of capacity for the long term basic research is much important than the number of research papers published. Some suggestions for this change are suggested as following; block funding, discipline-based funding, responsive mode, continuous renewal support. In addition, the organization of NRF needs to be transformed focusing on the discipline based organizational structure.

Since KOSEF was established and began its support for the basic research in 1978, there has been a lot of investment for the research. As the results, Korea has big performance from the view of quantitative aspect as shown in the number of SCI level journal publications. Now Korea tries to take another leap for the breakthrough of basic research. Many Koreans long for the appearance of a first Korean Novel laureate in the basic research area, for it could be the sign that Korea obtains the quantitative performance. It is the time when NRF takes off once more.

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# The Children's Playgrounds in Apartments and Terrace Housing Areas: Places of Leisure or Failure?

Ahmad Sid Hijaz Md. Saaid<sup>1</sup> & Ahmad Sanusi Hassan<sup>2</sup>

Correspondence: Ahmad Sanusi Hassan, School of Housing, Building and Planning, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia. Tel: 60-19-506-8260. E-mail: sanusi@usm.my; sanusi.usm@gmail.com

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#### **Abstract**

Colourful playgrounds are made for the young children. But, aren't they being provided for leisure or failure? This paper has conducted an assessment on the children's playgrounds that located in the housing areas of apartments and terraces. Such study is ubiquitous in the developed world, however, in Malaysia this topic is neglected, the children's playgrounds are presumed to be in good conditions because they were assessed at a distance. An observational survey was conducted on 57 children's playgrounds in the playing areas of apartments and terrace housings scattered in several cities of West Peninsular Malaysia. The safety checklist and playground grading forms which were used as the main survey instruments was modified based on the original checklist from the United States Consumer Product Safety Commission and the grading system was adapted from the United States National Program for Playground Safety. The safety evaluations stressed on four elements; the surfacing materials, drainage, general hazards and equipment maintenance. The result, most of the playgrounds were struggled to comply with the safety checklists. Significant problems and faulty issues on equipment were composed in the form of graphical images to enhance the discussions. Half of the sampling population managed to get the minimum C grades and only to be rated as the average playgrounds. If Malaysia's playgrounds are prioritized not on safety and neglecting their equipment maintenance, the number of failure playgrounds will surely increase and so does the playground accidents.

# Graphical Abstract:



Keywords: playground safety, surfacing materials, drainage, general hazards, equipment maintenance

#### 1. Introduction

# 1.1 The Proving Grounds of Children's Playgrounds

A children's playground is a place in the open air where playground equipment is installed and intended to be used by children to play, to develop competence and a positive sense of self (Beugels, 1993; Zeece & Graul, 1993; Gordon, 1981). According to Deconinck (2009), there is no such thing as absolute safety. Hence, the most challenging task for any playground designer is to eliminate all inadmissible risks, but permits exploration on the playground to the fullest joy and excitement experiences (Minuzzo, Rowan, & Young, 2009; Bachvarov et al.,

<sup>&</sup>lt;sup>1</sup> Architecture Program, Department of Civil Engineering, Ungku Omar Polytechnic, Malaysia

<sup>&</sup>lt;sup>2</sup> School of Housing, Building & Planning, Universiti Sains Malaysia, Malaysia

2008; Moore et al., 2006).

Children are used to play in their acquisition of knowledge (Piaget, 1962) and they play because it comes naturally (Shier, 1984). For them, play is the best tool to learn their life discovery (Stoecklin, 2000). Outdoor socialization is important for children to get their life's lessons such as respect, cooperation, communication and leadership, while developing strength and agility as well as a multitude of new physical skills (Kutska, 2007; Hurlock, 1978). Being regarded as a tool for children to see the real world (Smoyer-Tomic et al., 2004), a playground is the place of what it means to be a part of the children's growth (Sutterby &Thornton, 2005). For the purpose of psychological justifications, the best answer is to provide the children with the appropriate playgrounds (Mani et al., 2012; Amouzegar et al., 2009).

Presently, the playground issues have drawn an interdisciplinary attentions and debates among the scholars. Regardless of their scopes and interests, every article under this region, has never failed to compliment the essentiality of the playground for the children. The playground design evoked very fast. Having a multi-shape or an integrated unit of a composite-play structure (CPS) is becoming a popular trend to many playgrounds nowadays (United States Consumer Product Safety Commission [CPSC], 2010). The CPS architecturally imposes as a landmark for a gazette recreational area. The surrounding population and locality factors will determine the complexity and the size of the CPS. The playground is essential not only for children, but as an element of leisure for the whole community folks.

The importance of children's playground is undoubted. It is a place of leisure, yet combines with the excitement of the CPS, it becomes even livelier. However, this paper is intended to look at the opposite of the positive parts. Here, the antonym of the leisure is justified as the failure. Meaning, the failure to engage an appropriate safety measures to offer children a protection from playground hazards. Any negligence on the safety will make the children's playground a site of potential accidents. Any efforts to increase free play in the playgrounds must be balanced with concerns for safety (Nixon et al., 2003; Laforest et al., 2001; Mott et al., 1997). Normal wear, amount of usage, environmental factors, and vandalism take a toll on playgrounds and create hazards (White, 2012). Therefore, a comprehensive maintenance plan is essential to ensure that the children's playground is warranted with safety protection.

# 1.2 Unsafe Playgrounds

In 1965, David Aaron through his book *Child's Play* had questioned the yesterday's playgrounds. He was hoping to see playgrounds were the safest places of happy sanctuary where children were allowed to play freely, but he learnt all that were quite unsafe when a statistic shown that 30% of childhood accidents occurred in school and municipal playgrounds (Aaron & Winawer, 1965; Buck, 1988). Ever since, many articles, data and facts have highlighted on accidents, injuries and the importance of safety in playgrounds. Playgrounds are meant for children to play safely (Leung & Mahadev, 2010) but playgrounds also can cause host to injury, hospitalization and death (Uskun et al., 2008; Bernardo et al., 2001; Bond & Peck, 1993; Chalmers & Langley, 1990). More than 213,700 children were treated in the United States emergency departments annually due to injuries sustained in playgrounds (US CPSC, 2010; Howard et al., 2009). 75 % of children were injured by falling, 50% were equipment related injuries (Morrongiello & Matheis, 2007; Phelan et al., 2001; Weperan & Rogmans, 1991) and 45% of the injuries were severe fractures, internal injuries, concussions, dislocations and amputations (Tinsworth & McDonald, 2001).

In many other countries, the safety of children's playground is a well-recognized problem (Weperen & Rogmans, 1991). A study in Wales showed that 90% of all playground injuries resulting a visit to an emergency department were related to playground equipment (Mott et al., 1994). In New Zealand annually, about 7400 children aged less than 15 years old seek for treatments from the emergency departments (Chalmers et al., 1996). In Ontario, there were more than 8,000 children and 28,500 children all across Canada received hospital treatments because of unintentional injuries sustained while playing on playgrounds (Macpherson et al., 2010; Fiissel, Pattison, & Howard, 2005). In 1993, the Arizona Department of Health Studies had conducted a study and found that only 72 % of students with reportable injuries were actually taken to the emergency room or to a doctor. This means the actual number of playground injuries should be much higher (Mack, Hudson, & Thompson, 1997), and they were silently cured without informing their cases to the rightmost authorities.

Playground injuries are common childhood injury in most countries in the developed world (Mitchell et al., 2007; Fiissel, Pattison, & Howard, 2005; MacKay, 2003; Roseveare et al., 1999). To find the epidemiological statistics and scholarly journals under this topic from abroad countries, were much easier than to find the similar materials from the local source of Malaysia. Nevertheless, there were a lot of newspaper articles concerning this issue as well as estimating for unofficial playground injury statistics that happened in Malaysia. According to the record

of Epidemiology Accidents Cases in Malaysia, they estimated about 3000 accidents involving children of five to nine years old sustained in Malaysia children's playgrounds in every three months and those cases usually related to playground surfaces (Zain & Mokhtar, 2012).

# 1.3 A Playground that Provides for Leisure or Failure?

A colourful playground is architecturally appealing and simply acts as a focal point in a neighborhood park (Mani et al., 2012). However, the playground offers a different view of appreciation upon seeing it at a distance or in close proximity. Under a close inspection, one with a good knowledge on playground safety might have found many things not right with the existing playground. Especially, if the playground is an aging one or even the most high-end quality playground cannot withstand a lack of an ongoing and comprehensive maintenance plan (White, 2012). Surely any playground of that kind will offer more failures.

There are plenty of important factors to determine the well-thought-out playground for the children. Even if it is the best one, children cannot be allowed to play freely, the free play activities should only be allowed under adult supervision (Dewi, 2010). After all, the lack of studies pertaining to playground safety and design in Malaysia is the driving force to propel this study to quest for the consequences. What is the utmost importance of the children's playgrounds? Does it the leisure or the failure? Does it the safety or the hazards? Does it good or bad? If all the bad things come to light, what are the local authorities (as the playgrounds' owners) supposed to do next?

## 2. Methodology

An observational survey was employed at a total 57 playgrounds in Putrajaya, Ipoh, Alor Setar and Jitra. Those cities are located in the West Peninsular Malaysia. The majority of samples were playgrounds in the terrace housing areas. Only less than a quarter of the population was playgrounds in apartment residential areas. Though, there were significant measures caused by these two variables, but this research was not intended to differentiate which housing areas could provide for the better playground. Instead, the paper was only focused to find more inputs on the playground safety solutions and to distinguish a clear line between the good and the bad practices?

The sample size and measuring system used in the survey were almost similar to a recent survey formulated by Ersin Uskun in her study on children's playgrounds in Turkey (Uskun et al., 2008). A playground safety form was prepared based on the United States Consumer Product Safety Commission (US CPSC, 2010) checklist and conditional grading was modified based on America's Playgrounds Safety Report Card, National Program for Playground Safety (NPPS, 2006). Twenty six playgrounds were inspected in Ipoh, 10 in Putrajaya, 13 in Alor Setar and 8 in Jitra.

The observation was piloted for about an hour on each session, began in January until March 2014. All records, measures, sketches and pictures were translated into qualitative analyses. In support to the argumentation, several interview sessions were conducted with caregivers and the respective officers from the local authorities. At every visit to the playground sites, no less than ten pictures were taken in order to take notes on the problems and safety issues. The pictures quantitatively served for further analytical studies.

All records and notes of deficiencies on the playground safety forms would be submitted to the respective local authorities for their further actions. The safety form was an improvement checklist for a playground inspector. United States is one of the leading countries where playground inspectors were professionally recognized. They were trained to become Certified Playground Safety Inspectors (CPSI). Their task is to ensure best safety practices and child protection from playground hazards. This study has tried to adapt to the latest models and to bring forward the Malaysian playgrounds with a better standard and safety assessment all together.

#### 2.1 Assessment Criteria

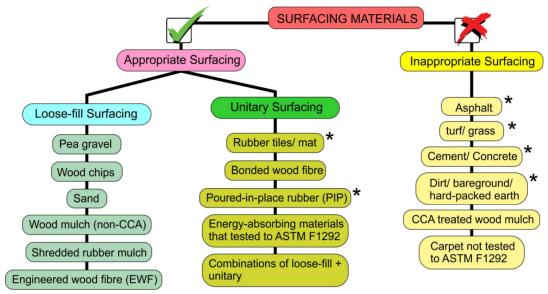
As this was an inaugural comparative evaluation of playground safety research in Malaysia, the focus would be weighted on these four criteria:

# 2.1.1 Surfacing Materials

According to the Handbook for Public Playground Safety (HPPS), this checklist was defined as appropriate and inappropriate surfacing materials. Particular attention should be paid to the surfacing details; with materials such as asphalt, cement, concrete frame, grass or bare ground, and of course, these hardened finishes would only make the fall surfacing inappropriate and extremely hazardous. The appropriate surfacing materials could be divided into two categories; loose-fill surfacing and unitary surfacing. The Figure 1 graphical chart gives us a clear picture about this category.

Scholars shared their thoughts and regarded the fall surfacing as the most critical part in the issue of playground

safety (Allen et al., 2012; Doaa, 2012; Wheway, 2012; Howard et al., 2009; Mott et al., 1997; Beugels, 1993; Bond & Peck, 1993).



<sup>\*</sup> Only these types of surfacing materials were found in the children's playgrounds, during the pilot study in Putrajaya, Ipoh, Alor Setar and Jitra.

Figure 1. Type of surfacing materials. The asterisk indicates the only surfacing types available in the fields. Further explanation will be discussed in the result and discussion section

#### 2.1.2 Drainage

As recommended by the HPPS, the drainage checklist was used to survey all the 57 playgrounds. The result was a bit general, thus, the employment of another method was needed to detail out the finding points on this subtopic.

Good drainage is essential because children's playgrounds are situated in the open areas. Spaces under the swings and at the slide exits were regarded as the most sensitive areas for playgrounds (CPSC, 2010). Nevertheless, a place likes Malaysia, a tropical country which climatically hot, humid and regularly showered with torrential rainfall throughout the year; the implicit effects of the playground equipment were greater than at those sensitive locations.

Case study is a common approach in architectural research. The researchers had chosen to use that approach with all input were gained from several sessions of naturalistic observations focussing on the issue of drainage on the playgrounds. The similar method of case study was also used by Hassan, Emalgalfta and Ku Hassan (2010), in their research on three different resorts in Langkawi Island. The discussions for the checklist of drainage would be done qualitatively with the adaptation of three case studies. The points given in the result's subsections will explain about the seriousness of this problem.

# 2.1.3 General Hazards

All playground provisions were planned and built for the goodness, but the faulty components could be dangerous for children (Mani et al., 2012; Howard et al., 2009). Every scholar on playground safety has never failed to promote extra awareness towards the accident-producing conditions: Sharp edges, protruding bolts and nuts, pinch points, open-ended S-hooks and exposed concrete footings are amongst the hazardous examples that supposed to be eliminated from any playground, anywhere in the world.

Those components will be generally hazardous if they are allowed on the playgrounds with deficiency characteristics. The faulty components are venomous; neglecting their existence is like giving time for them to be patience and slowly waiting to strike their inaugural victim, an unlucky child amongst the innocent children.

The Playground Technical Report, subchapter General Hazards (April 24, 1990) is the most helpful literature under this checklist. The comprehensive 100 page guidance literature discussed every issue of safety and was the basis in the development of the Handbook for Public Playground Safety (US CPSC, 2010); the most notable reference for public children's playgrounds.

#### 2.1.4 Durability of Equipment

The combined factors of weather and outdoor-site have challenged the durability of both playground structures and non-structural equipment. Woods, metals, composite or high-impact plastics are being used as playground materials for decades; however, these components come with a lifespan. Clearly a contradictory, when the play tools are putting outside yet expecting their very best services, long lasting and maintenance-free. Unfortunately, such practices happened in a reality.

Over time, no materials could afford to withstand the extreme natural forces. Durability of equipment is considerably a major factor to determine a good children's playground. Only materials with a good record for outdoor performances should be used (Swartz, 1992).

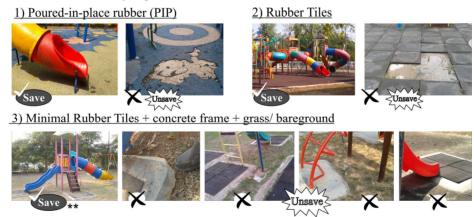
Materials such as metal, wood, and plastic are common, but each has disadvantages (Bhattacharya et al., 2003; Wade, 2002). Metal can become very hot under direct sunlight and may rust if not maintained. Wood becomes unpopular causing decay of rots and splinters when not regularly treated. Plastic is the most common and has less threat of injuries than woods and metals, but it needs to be provided with routine maintenance. Poor materials would affect the standards and shortened the life of equipment. As a result, those playgrounds would not be warranted with the utmost safety.

#### 3. Results

Even though the study has been conducted in four different cities, yet the aim was not to determine which city had prevailed with the utmost playground facilities. The problems of children's playgrounds had been put in the spotlight, hence given out some vivid ideas on the need for more studies pertaining to the topic of playground safety. The study will need to look further for information and discussion could be related to those four mentioned attributes, in which their qualitative analyses will be as follows:

# 3.1 Surfacing Problems

In 1988, a similar survey was conducted on 47 public playgrounds in Boston, USA. All the playground surfaces were inspected inappropriate with plenty of deficiencies and had to be proclaimed unsafe (Bond & Peck, 1993). However, that study was about a quarter-century ago. With stricter guidelines for playground safety nowadays, their playground surfaces are surely expected to be in much better conditions.



<sup>\*\*</sup> Saved, but not recommended due to environmental factors (US CPSC, 2010)

Figure 2. The simple comparative analyses on three types of rubber profiles

Meanwhile, on the total of 57 children's playgrounds, in which the field study had taken about two and a half months, the result was not very encouraging. Ten playgrounds (17.5%) were installed with the state-of-the-art poured-in-place rubber (PIP). Two of them had to be declared unsafe due to their unmaintained conditions. The PIP is a beautiful playground flooring system. With colourful recycle-rubber materials, it can be drawn to attract more children. Playgrounds with this type of surfacing were available in prime recreational areas, capital cities or modern city like Putrajaya.

Twenty-two (38.6%) playgrounds were using unitary-rubber tiles and 68% of them were unsafe. Sixteen (28%) playgrounds had been provided with the non-standard the minimal rubber tiles. Actually, the minimal rubber tile was a combination type, but it should have combined with the loose-fill surfacing (US CPSC, 2010).

The researchers had observed that minimal rubber tiles combined with grass or bare ground surfaces were used

in lieu of standardized rubber surfacing, which was internationally illegal for playground practice. Though, those surfaces were improvised because of economical budgets, but, such practices had comprised the safety on the playgrounds. From the survey, poorly 94% of the total playgrounds had to be pronounced unsafe.

A series of graphical analyses are shown in the Figure 2 would help the audience to understand about the comparison conditions of the unitary rubber surfacing.

The last nine (16%) playgrounds were inspected with the worst inappropriate surfaces. The play areas were only covered with green, bare ground or earth packed surface and cement render; probably waiting for resurfacing works. All of these surfaces were unacceptable and totally unsafe. Overall, 41 (72%) playgrounds were diagnosed with acute surfacing problems. In other word, the playground surfacing had to be declared unsafe. Remember, the safety survey was only a basic inspection; neither a thorough study of the types of materials nor the surface thickness evaluation was involved at that time. The major deteriorating factor was due to poor maintenance plans.

In terms of safety, the loose-fill surfacing is believed to perform better than the unitary surfacing (Figure 1). However, the loose-fill materials require extra care, and for this reason, such materials were unfavoured in Malaysia. Although, the unitary surfacing is everywhere in Malaysia's playgrounds, but, that doesn't mean the material is maintenance-free! In order to maximize play-value and to ensure sustainability; every playground must be provided with a proper maintenance plan.

#### 3.2 Still Water Problems

Heavy use areas were the main focus of the survey of the drainage. Attention should be given in two critical locations; the surfaces under the swings and at the slide exits. Generally, the drainage checklist for all playgrounds had achieved a satisfactory result, 75% of them were rated safe.

Even though drainage was only a small issue compared to other problems, yet it could has given a huge impact unintentionally. Most playgrounds were positioned in the middle of neighborhood open areas. After rainfall, playgrounds without proper drainage will hold water on their surfaces. The water puddles or still-water naturally may not cause any hazard. However, if the still-water is located within the use zone or near to the playground parts, a poor child may trip or fall with his head first onto a hard surface of the playground structure. The injury could be worse if there were sharp edges or protrusions on that particular area.

Naturalistic observations on the playgrounds were conducted in a passive mode. 'Still waters run deep' could be regarded as the process to gain input for thoughts. But, still-water held on the playgrounds must be handled with appropriate measures to avoid any potential accidents.

The following case studies will give clearer pictures on several playgrounds that were affected by drainage problems. Their stories would be related with the synopses given in the Figure 3A, 3B and 3C below.



Figure 3. Three examples of naturalistic observations detecting drainage problems

# 3.2.1 Case Study A

As a prime recreational area for the city of Ipoh, the park was surrounded by plenty of shady trees, which made the exterior space naturally pleasant. Neighborhoods of terrace housing areas surrounding the city were normally headed for the park, especially during the weekend to have some recreational activities with their families and friends.

The researcher had visited the site a few times during the research period. This time, the day was hot and humid

with off-peak activities and not many children were seen at the playground. The composite-play structure (CPS) scale's was the largest in the city. Such design could accommodate between 50-80 playing children at a time. However, the CPS area wasn't really a comfortable place to play. It was a bit off to the center of an open field, which made the CPS left to be exposed to the intense sun. It wasn't just about the harmful effects of sunray or unplayable conditions in a rainy day; the researcher was there where the sun was directly overhead, still several portions of muddy puddles were seen quite close to the main CPS (Figure 3A), probably an evidence of heavy rain several days before. The city council as the playground's owner knew as about this problem; for them muddy puddles were a small matter, but simple hazards were still a hazard and could threaten the children's activities and their safety.

#### 3.2.2 Case Study B

A visit was conducted to the playground site hours after a rainstorm wetted the whole area that particular morning (Figure 3B). The weather was very pleasant, but the surfaces were all wet. A few children stormed into the playground area as their parents were watching nearby. The weekend retreat was enjoyable for the children and memorable for their parents as some of them would be going home with their children's clothes dirty and wet. Normally, the kids would enjoy themselves to get dirty, but the playground equipment was not designed for that purpose. A dirty slide would spoil the sliding and the smoothness of the slide surface.

Children's playgrounds in Malaysia were built to be left for the public. Local authorities as the playground owners were normally responsible for major defects. Small deficiencies on playgrounds were normal, as long as they would not threaten the life of any human, no action will be taken. In a large playground park, there were general workers to do all the cleanliness, probably an extra task need to be added to their shoulders; to clean up the wet or dirty playground equipment. The time is ripe for the local authority to train and to employ full-time play workers to efficiently supervise their playground facilities and jointly alert the parents on the safety of their children.

# 3.2.3 Case Study C

The researcher had conducted a trip to Putrajaya; an ultramodern city where their playground facilities were regarded as the finest in Malaysia. Each playground was unique, colourful and outstandingly designed. Whether those playgrounds were designed for apartments or terrace housing areas, most of the playgrounds were built with satisfying landscape environment. Many things could be learned from the tiring one-whole day observations in Putrajaya. Under the issue of drainage, a problem was detected at an apartment's playground in Precinct 16 (not far from the Alamanda; the commercial city centre for Putrajaya). Surprisingly, a puddle of still-water was spotted at the slide exit of the CPS (Figure 3C). Subsequently, any children that going to have fun with the spiral-tunnel slide, would have to wet their trousers. Strangely, that afternoon was a hot and sultry, thus made the researcher did not feel that the water was poured down by anybody. While looking into that, the researcher was sparked with a question: What is actually the effective time of play for an outdoor children's playground?

If it's a rainy day, everything is wet and will take a few days to dry. If it's a dry and sunny day in tropical Malaysia; direct sun can become scorching hot and intense sun exposure on the bare metal playground structures can burn the children's skin. Those conditions will surely limit the time of play. Still-water puddles caused by poor drainage or improper design will threaten the playground and the children's safety. Why not propose an exposed playground with a playground shade? A tensile structure, for instance, will offer some shaded area, gives some protection from the hot sun, the stormy weather and enhances the durability of equipment within the covering area.

# 3.3 General Hazards











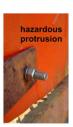


Figure 4. Examples of observations detecting general hazards

Only 12% of the entire playgrounds convinced satisfactory in the evaluation of safety for general hazards. These mean, other 50 playgrounds were potentially unsafe and if the study was to look into a bigger scale, the unsafe playgrounds pertaining to general hazards would become far too obvious. Probably, the playgrounds that our kids are playing right now are silently alarming with these issues; yet the equipment is still played by children, and added by the ignorance of their parents' hope that nothing will happen, even though the potential hazards are within a striking distance from biting their children. Equipment was deemed to be the most unsafe (Macpherson et al., 2010). A missing bolt and an end-cap, for example, was thought of being able to be repaired, instead it was retrofitted and left to be an obvious hazardous protrusion.

The problem cases were summarized in the Figure 4. In developed countries, where safety measures were strictly implemented or as followed by the guide from the Handbook for Public Playground Safety (CPSC, 2010), for example, these scenes were surely the taboos. Many factors appeared to have been taken for granted in the issue of general hazards. From observations, the researchers had learnt that the inaccurate practices were accepted in the local business for long. Presumably, the lack of guidance and safety acts were the probabilities that helped this issue to arise, but passively unnoticed by the local authorities until it was proven to cause severe accidents on the playgrounds, only then, the respective bodies would normally start to talk about preventive maintenance. Small defects could be the likelihood for accidents yet a small event of accidents or mishaps sustained by the children were only taken as notions of childhood.

Occasionally, a poor-little child would have fallen off a swing or bruised himself while playing at the neighborhood playground. Such news would be spread out fast within the local community and would be forgotten entirely after a while. The same episode goes to similar cases and at the end, we would not have an inclusive statistics on playground injuries and no actions would be taken by the rightmost authorities.

The observational study in Putrajaya revealed that most playgrounds equipments were proactively maintained by the Putrajaya Corporation (PJC). Kudos for their efforts, all children's playgrounds in Putrajaya were in the best conditions compared to Ipoh, Alor Setar and Jitra. However, if the survey was to use the actual parameter checklists, as recommended by the CPSC (2010); none of the playgrounds would have achieved an A grade. Partly, this was due to the ignorance of general hazards; protrusions of bolts and nuts, for example, were obviously seen under the slide platforms, at the joints of tube slides, under the seat of seesaws etc.

#### 3.4 Durability of Equipment



Figure 5. Examples of observations detecting durability problems



Figure 6. An example of a horrible playground at Selasar Rokam terrace housing area, Ipoh

The study had recorded 39% failures under the equipment durability checklist. Durability defects were detected in the form of rust, rot, crack, splinters, and signs of broken and missing components (Figure 5). To ensure good conditions, all playground equipment must be free from any malfunction and deficiency. Only new playgrounds were beautiful, safe and could be offered with adequate safety protections. Aging playgrounds or after three to five years in service; the durability conditions on the playgrounds were shameful. Small defects and deficiencies were mostly left unrepaired. The researchers were afraid that if the worsening playgrounds weren't provided with appropriate maintenance programmes, those playgrounds would become the public nuisance. There were a few horrible playgrounds that should better be demolished because of the intense broken equipment and missing components which had made them unplayable (Figure 6).

#### 4. Discussion

This study was a maiden attempt looking through the spectacles of architectural design, upon the children recreational facilities. One of their scopes is the safety issue of children's playgrounds in Malaysia. The major instrument was adapted and modified from the *Handbook for Public Playground Safety* published by the United States Consumer Product Safety Commission (CPSC, 2010) and *America's Playgrounds Safety Report Card* endorsed by the National Program for Playground Safety (NPPS, 2006). However, the study couldn't simply use all the recommended checklists, as the children's playgrounds in Malaysia landscape were different from the public playgrounds in the United States. Obviously, playgrounds in Malaysia need to improve on two major attributes; the fall surfacing and the age-appropriate design.

The integrated unit or the composite-play structure (CPS) was contemporary in the modern playgrounds nowadays. In a prime recreational area, a playground park would have consisted more than one CPS on their site. Equipment for younger and older children was grouped together and there was no notification on the equipment about what age group they were produced for. The element of segregation was studied by Uskun et al. (2008). Yearly & Berlinski (2008) had also proposed the same method, so that the toddlers would be discouraged from using the equipment not designed for them. Besides segregating the CPS functionally based on age-appropriate design, their designs were sometimes very confusing. A child of four years old (and so did his parents) did not know which equipment should his child plays. There was a situation (Figure 7), whereby a group of youth tried their skills on the CPS, because they thought that the 'adventure playground' was meant for them.



Figure 7. A composite-play structure (CPS) in Gunung Lang, Ipoh that was neither suitable for toddler nor junior children

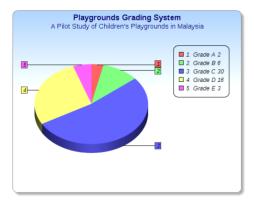


Figure 8A. Playground's grading

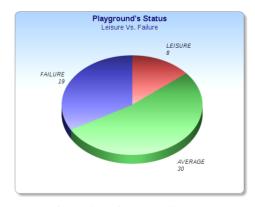


Figure 8B. Playground's status

This study could not apply the overall grading system that was recommended by the NPPS (2006) due to the non-compliance safety standard and non-standardized equipment. However, after a minor modification on the rubric, the surveyed playgrounds were able to be graded into five classifications (Figure 8A). Astonishingly, only two playgrounds, each were situated in Ipoh and Putrajaya, managed to achieve the excellent "A" grades while another six considered as newly completed playgrounds achieved the "B" grades. These eight playgrounds had answered the research aims at finding the 'leisure' playgrounds that satisfactorily safe and recommended for all children (Figure 8B).

Three of the lowest scored playgrounds fell under the shameful conditions. They were looking like abandoned playgrounds with plenty of deteriorated structures (Figure 7). Those playgrounds could become the danger zones for the public. Presumably, rectification works were in the process, they were left with nothing instead. There should be a notification or at least barricaded by the local authority from causing opportunity of hazards.

Two failures in the category of fall surfacing, general hazards or durability of equipment had brought sixteen playgrounds and classified them as 'D' grades. The combination of 'D and E' grades had made up a total of 19 unsuccessful playgrounds. Therefore, almost one-third of the studied playgrounds population was deemed as the 'failure' in playground safety (Figure 8B).

The failure for at least one category of the assessment had brought thirty playgrounds and made them able to get only the 'C' grades (Figure 8A), or slightly more than a half of the sampling population has to be rated only as the average playgrounds. Precognition in this study, if there were still without adequate measures of playground maintenance, the number of failure playgrounds will be increased and so does the playground accidents.

#### 5. Limitation of the Data Analysis

Potentially, this study could be driven into a much bigger avenue. The supportive quantitative data for example, could be expanded with statistical analyses. However, as to fulfill the nature of architectural based research, such studies will not going to be completed without some sketches (Figure 9). Sometime, illustrative drawings can be more effective than the writings in delivering such analyses. Though, for the current stage, the researchers had felt comfortable with their research design, an in-depth approach, probably an alternative observational strategy; modeled by Hassan (2010), could be developed for their next academic writing.



Figure 9. An observational sketch by the researcher of an apartment's playground at Suka Menanti, Alor Setar

Qualitatively, data were derived from observations, interviews and content analyses. Temporarily, evaluation and assessment were yet to focus on any particular scope. For example, a study of playground safety in Putrajaya, which would be a good topic in specific, but that, could only be done providing an ample time. Instead, the study

was dispersed in a few cities to get an overall picture instantly. In this pioneering project, the assessment of children's playgrounds in Malaysia focused on the perspective of architectural design safety. Architecturally, the project scales will be expanded from time to time in order to seek for new ideas, solutions and innovations. As a token of reward, safer and better designs are hugely anticipated for the future of Malaysian children's playgrounds, which the aims will be a part of the project's milestone; to conduct an ultimate research pertaining to playground safety and design in Malaysia.

#### 6. Conclusion

A children's playground is a positive presentation for any housing areas. It will be a good focal point, as well as to enhance the 'leisure ambience' for the whole residential area (Figure 9). The researchers had observed many new playgrounds; most of them were left forgotten soon after their projects were completed. That was how the story of failure had begun. Those playgrounds were assumed to be the entities of maintenance-free.

Even though, this study was conducted only in certain regions, but the sampling population could be well reflected similar situations for the whole nation. Children's playgrounds in Malaysia were heading for a crisis caused by inadequate maintenance practice and the lack of safety awareness. Most of our playgrounds will struggle to comply with the safety checklists recommend for the fall surfacing, drainage, general hazards and durability of equipment.

A case in Putrajaya for instance, a supremely utmost city of Malaysia; everything was provided to the level best. Their playgrounds were superbly impressive, unique and perhaps the best in the country. However, if an investigation was to be conducted in close proximity; many things won't be right and safe. Sharp edges, protruding bolts and nuts were everywhere, especially at the equipment's undersides and on the replaced parts. Even though the PJC had managed to conduct a regular maintenance check for Putrajaya's playgrounds, much better than the local authorities in other cities, their works, however, were not up to the specifications of any international playground standards.

Poor maintenance practice will invite more problems towards the playground equipment. Those playgrounds used to be the places of leisure, nevertheless, because of being badly maintained or haven't been maintained at all, they would still continue to endure, but now, as the failure playgrounds. Malaysians were good at building something for the records, but did not care a lot. This stigma has to be changed; to see the rise of our playgrounds again!

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# English Usage and Problems of Industrial Pharmacists at Two Large Multi-National Pharmaceutical Manufacturers in Thailand

Lagkhana Srisuwan<sup>1</sup> & U-maporn Kardkarnklai<sup>1</sup>

<sup>1</sup> Western Languages Department, Faculty of Humanities, Srinakharinwirot University, Bangkok, Thailand Correspondence: U-maporn Kardkarnklai, Western Languages Department, Faculty of Humanities, Srinakharinwirot University, Bangkok 10110, Thailand. E-mail: ukard252@gmail.com

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#### **Abstract**

In pharmaceutical industry, insufficient English proficiency of industrial pharmacists in international communication can cause adverse outcomes in the process of overseas product registration and regulatory audits. This study explores English use and problems of 51 industrial pharmacists within two large multinational pharmaceutical manufacturers by using a self-developed questionnaire based on the frameworks of needs analysis (Hutchinson & Waters, 1987) and communicative competence (Canale & Swain, 1980). The findings indicate that reading is the most frequently used skill, followed by writing, listening and speaking, respectively. Specific communicative tasks which Thai industrial pharmacists most commonly performed were: 1) reading emails, 2) writing emails, 3) reading validation protocols/reports, 4) reading pharmacopoeias and pharmaceutical textbooks, and 5) reading procedural documents. A major problem lies within oral communication skills. The implications of the findings show valuable sources of target language events which can benefit ESP educators and pharmaceutical trainers in the development of ESP courses.

**Keywords:** English communication skills, international communication, industrial pharmacists, English for Specific Purposes, needs analysis

#### 1. Introduction

#### 1.1 Background of the Study

In Thailand, the continuing globalization of the pharmaceutical industry, with growth in imports and exports, necessitates an increase in the use of English for communication. Since Thailand has a small number of local pharmaceutical manufacturers, and they have limited production capabilities, the country is unable to produce adequate pharmaceutical products, and therefore depends upon imported products to meet domestic demand. Imports of pharmaceutical products have increased considerably over the last 10 years, and in 2010 accounted for approximately 70% of total domestic drug consumption (Thai Bureau of Drug Control, 2012). Some local manufacturers have increased exports of their products to ASEAN countries, Europe, USA, and others (Department of Trade Negotiations, 2009; IMS Health Thailand, 2011). This growing interdependency within the pharmaceutical industry increases the need of industrial pharmacists to use English for international communication.

Inadequate English proficiency can lead to industrial pharmacists having many problems in their work life. For example, in a manufacturer's certification process by foreign health authorities, industrial pharmacists have to use listening and speaking to welcome, discuss, interact and negotiate with auditors during audit meetings and plant tours. Failures in English communication with foreign auditors may arise during audits, such as the inability to clearly answer questions, offer explanations showing a company's compliance to regulatory requirements, and to properly defend against something which is arguable. The consequences can be adverse audit outcomes, and thus delay the approval process for a manufacturing license (Language is Biggest, 2010). Therefore, English communication problems in the work context of industrial pharmacists should be resolved, in order that they can use English effectively and professionally.

A number of researchers have investigated English usage and problems amongst health professionals, based upon a needs analysis framework. Phutirat & Suwannapatama (2007) and Thongtang (2009) reported the use of four English skills in the daily tasks of hospital pharmacists. However, none of these studies focused upon

English communication problems concerning industrial pharmacists. This study aims to identify English use and associated problems concerning Thai industrial pharmacists. The four English communication skills to be investigated are reading, writing, listening and speaking.

#### 1.2 Relevant Scholarship

This section presents a review of relevant literature regarding (a) English for Specific Purposes (ESP), (b) needs analysis, (c) English skills used in the pharmaceutical manufacturing industry in Thailand, (d) problems of English use in a work context, and (e) previous studies.

# 1.2.1 English for Specific Purposes (ESP)

A number of ESP researchers have proposed worthwhile ideas about ESP definitions. Robinson (1980) argued that an ESP course should focus on the learner's success at being able to perform well in the occupational or academic situation. In addition, the course should be tailor-made and based upon careful analysis of learner needs. Robinson's emphasis on learner needs is in accord with Hutchinson & Waters (1987), who described ESP as an approach to English teaching based upon learner needs. They added that ESP teaching contents and methods may vary, depending upon a learner's particular interests. Dudley-Evans & St. John (1998) proposed a comprehensive definition of ESP in terms of absolute and variable characteristics. Hyland (2002) described ESP as a research-based language education with focus specificity, which refers to a distinctive approach to language teaching based upon two main concerns: 1) specifically identifying language features, discourse practices and communicative skills for different target groups of learners, and 2) providing teaching practices specific to the level of expertise and particular needs of learners.

In summary, ESP is an approach to English teaching which focuses upon specific needs of learners from the academic to professional fields. An ESP course is specifically designed for each target group, so that the teaching content and methodology may differ, depending upon the particular interests of the learners.

# 1.2.2 Needs Analysis

# 1) Definitions of Needs Analysis

Needs analysis refers to the processes involved in the collection of information pertaining to the needs of a particular group of learners, in occupational or academic fields. A common purpose of needs analysis es is to identify the learning needs of students. The identified and interpreted data become the basis for further development, such as: teaching materials, learning activities, course evaluation etc. (Brown, 2011). With substantial contribution to ESP, needs analysis is viewed as a cornerstone and the first step before all other decisions are made in the development of an ESP curriculum (Brown, 2011; Dudley-Evans & St. John, 1998; West, 1997).

# 2) Definitions of Needs

ESP researchers defined needs in a number of ways, based upon different philosophies and perspectives. Hutchinson & Waters (1987) defined needs by dividing them into target needs, 'what the learner needs to do in the target situation', and learning needs 'what the learner needs to do in order to learn' (Hutchinson & Waters, 1987, p. 54). The target situation may not adequately reflect the real learning needs in the ESP learning situation, because it can reveal only the destination of language learning. To achieve the course objectives, ESP practitioners must also devote particular attention to the conditions of the learning situation, knowledge, skills, preferred learning strategies and the motivations of the learners.

In conclusion, ESP is an approach to language teaching based upon learner needs which can be identified by needs analysis. These identified needs can be used as a basis for ESP curriculum development.

# 1.2.3 English Skills Used in the Pharmaceutical Manufacturing Industry in Thailand

Thai industrial pharmacists use four English skills (reading, writing, listening, and speaking) in routine work. Based upon the researcher's experience as an industrial pharmacist, and interviews with some Thai industrial pharmacists, these four skills may be used at different frequencies, depending upon responsibilities and level of job position.

Specific work-related documents and work activities illustrate some differences and similarities in language discourse between industrial pharmacists and other similar professions. Hospital pharmacists use English skills to communicate with foreign patients and medical professionals (Phutirat & Suwannapatama, 2007; Thongtang, 2009). In contrast, industrial engineers working in the manufacturing industry communicate with similar groups of people, such as: foreign bosses, colleagues, customers and suppliers. Several previous studies have also shown some similar documents which industrial pharmacists and industrial engineers use, including: emails, letters,

equipment manuals, work instructions, minutes of meetings and certain reports (Chalardsit, 2007; Hart-Rawung, 2008; Kassim & Ali, 2010; Spence & Liu; 2013).

#### 1.2.4 Problems of English Use in a Work Context

All four English skills are believed to be important for industrial pharmacists to function effectively in their daily work. Previous studies (Chaichanasiri, 2007; Chalardsith, 2007; Hart-Rawung, 2008; Phutirat & Suwannapatama, 2007; Rogerson-Revell, 2007) reviewed the problems of English usage in different international workplaces, as follows:

# 1) Reading Skills

Common problems with reading skills are a lack of knowledge of general vocabulary, technical terms, idioms and grammatical structure, difficulty in understanding the details or main ideas of a text and difficulty guessing the meanings of unknown words.

#### 2) Writing Skills

The problems that often occur with writing skills are a lack of knowledge of vocabulary, grammatical and sentence structure, selecting appropriate words and expressing ideas clearly. A particular problem concerning writing skills is difficulty in formatting paragraphs and using correct spelling.

#### 3) Listening Skills

The most common problems of listening skills are: a variety of foreign accents, a lack of knowledge of general vocabulary and technical terms, idioms, comprehending lengthy conversations and rapid speech.

# 4) Speaking Skills

A lack of vocabulary and grammatical knowledge is still an important problem with regard to speaking. Other common speaking skill problems are: pronouncing appropriate stress and intonation, selecting appropriate words and correct sentence patterns, expressing ideas appropriately, providing immediate reaction in a conversation, interrupting or entering into discussions in a polite manner and inhibition.

Problems with English language use in international workplaces are diverse, but they can be grouped into categories according to theoretical frameworks established in the ESL/EFL field for explaining problems with English language learning. Strevens (1980) divided language problems into linguistic and sociolinguistic types. These problems may result from a lack of English competence. According to Canale and Swain (1980), learners should be prepared to achieve a sufficient level of three communicative competence components: 1) grammatical competence, which involves knowledge of lexicons and rules of morphology, syntax, semantics, and phonology, 2) sociolinguistic competence, which involves the ability to know about sociocultural rules in ways whereby learners can produce and comprehend language appropriately and politely in certain social situations, 3) strategic competence, which refers to the ability to use verbal and non-verbal communication strategies, in order to compensate breakdowns in communication due to insufficient competence.

#### 1.2.5 Previous Studies

Several studies have investigated English usage and associated problems within the healthcare professions. Alharby (2005) conducted a study to investigate the English communicative needs of health professions working for three different hospitals located in the Riyadh area of Saudi Arabia by using a questionnaire survey. In this study, the researcher investigated three aspects based on the framework of needs analysis: the extent to which English is used by health professionals in their careers, the level of four English skills required in their work-related activities and their views on English language preparations during their pervious college study.

Thongtang (2009) investigated English usage and associated problems, and strategies used to understand English, amongst the medical personnel of Uttaradit hospital, by focusing upon speaking and listening skills. The findings revealed that medical personnel in the emergency departments most frequently used reading skills, more so than others. Getting the main ideas of verbal messages was the most problematic listening task, whilst appropriate vocabulary and idiom usage were the greatest speaking problems.

Phutirat & Suwannapatama (2007) investigated the problems and needs of hospital pharmacist English skills, in two large private hospitals in Bangkok, focusing upon the four English skills. The results indicated that listening was the most problematic skill, followed by speaking, writing and reading, respectively. The most serious problems were writing pharmaceutical documents and job applications, and listening to foreign patients' general questions. Reading was the least problematic skill. However, the pharmacists expressed that their greatest need was for reading skills.

#### 2. Method

This section outlines the research methodology employed in the present study, including (a) participant characteristics, (b) sampling procedures, (c) research instrument, (d) data collection and (e) data analysis.

### 2.1 Participant Characteristics

The participants of this study were 51 industrial pharmacists who had at least 1 year's work experience in pharmaceutical manufacturing at two pharmaceutical manufacturers: OLIC (Thailand) Limited (36 industrial pharmacists) and Interthai Pharmaceutical Manufacturing Limited (15 industrial pharmacists).

#### 2.2 Sampling Procedures

The participants were selected using the method of purposive sampling based upon two reasons: First, the two companies are the top multinational pharmaceutical manufactures in Thailand. Second, these companies are contractual manufacturers of pharmaceutical products, and have a number of international clients from the USA, Europe and Asia. This provides their employees with plenty of opportunity to communicate in English with their clients.

#### 2.3 Research Instrument

The research instrument in this study was a survey questionnaire. This self-administered questionnaire was developed using a needs analysis framework (Hutchinson & Waters, 1987) by focusing upon an analysis of the target situation. The design of the questionnaire was based upon background information obtained through previous research, and preliminary interviews with some industrial pharmacists during the development process of the questionnaire.

#### 2.3.1 Construction of the Ouestionnaire

The questionnaire construction consisted of several steps. First, the researcher reviewed related literature. The next step was to conduct preliminary interviews with five industrial pharmacists, in order to recognize problems with English usage in their professional careers, and strategies which were useful for handling the problems. The information obtained from the literature reviews and interviews was used in the development of the initial draft of the questionnaire. The initial Thai version was piloted with 15 industrial pharmacists in other pharmaceutical manufacturers to check clarity and comprehensibility. Conbrach's alpha was calculated for the parts which have a rating scale, in order to measure the reliability of the questionnaire. Revisions by deleting some questions may be done to obtain Cronbach's alpha of  $\geq 0.70$ , which Nunnally (1978) offered as an acceptable alpha. Finally, after revisions according to suggestions from the advisor and master project committee, the final version of the questionnaire was employed in the data collection. The reliability coefficients obtained from the pilot test were 0.843 for the part on English usage problems. Finally, the final version of the questionnaire was employed in the data collection.

# 2.3.2 Contents of Questionnaire

A Thai version of questionnaire was used for data collection, to reduce ambiguity and avoid misinterpretation. The questionnaire was divided into five parts.

Part I aimed to obtain demographic data, which included gender, age, years of work experience, educational background and positions held. Part II listed predefined routine tasks in order to allow the participants to rate how frequently they use English skills to perform routine tasks, and which were grouped under four main skills: reading, writing, speaking and listening. This part used a 5-point Likert frequency scale ranging from 1 = least frequent to 5 = most frequent. Part III focused upon determining how frequently the industrial pharmacists encountered problems with English usage. The same rating scale as Part II was used.

Table 1. Mean range and interpretation

Mean Range	Descriptive Interpretation	
4.51-5.00	Very high	
3.51-4.50	High	
2.51-3.50	Moderate	
1.51-2.50	Low	
1.00-1.50	Very low	

Table 2. Demographic characteristics of participants

Types of Demographic Data	Number	Percentage
Gender		
■ Male	16	31.4
■ Female	35	68.6
Age		
■ 21-30 years	25	49.0
■ 31-40 years	24	47.1
■ 41-50 years	1	2.0
■ 51-60 years	1	2.0
Educational Background		
Highest Degree		
■ Bachelor's Degree	35	68.6
■ Master's Degree	15	29.4
<ul> <li>Doctoral Degree</li> </ul>	1	2.0
Types of English Courses Taken During University Study		
■ General English	27	52.9
■ English for Specific Purposes	2	3.9
■ Both types	22	43.1
Work Experience		
Years of Work Experience in Pharmaceutical Manufacturing		
■ 1-5 years	24	47.1
■ 6-10 years	17	33.3
■ 11-15 years	7	13.7
■ 16-20 years	1	2.0
■ 21-25 years	0	0.0
■ 26-30 years	1	2.0
■ 31-35 years	1	2.0
Job Level		
■ Non-managerial level	40	78.4
■ Managerial level	11	21.6
Job Responsibilities		
Quality Assurance	22	43.1
Production	15	29.4
Quality Control	8	15.7
Research and Development	6	11.8
Regulatory affairs	4	7.8
Other	2	3.9

#### 2.3 Data Collection

The survey was conducted by directly distributing copies of the questionnaires to 51 pharmacists working at the selected multinational pharmaceutical manufacturers. The questionnaires were left with the participants for two weeks, in order to provide sufficient time for them to read and respond with care. After the target period of two weeks, the participants were asked to return the questionnaires. The data collected would then be analyzed.

#### 2.4 Data Analysis

The quantitative data from the questionnaires were analyzed using Microsoft Excel. The statistics to be used were percentages, means  $(x\Box)$ , and standard deviation. Percentage was used to analyze the demographic data of the participants. Means  $(x\Box)$  were computed to determine average levels of English skill use and associated problems, by referring to the interpretation of 5-point mean rating from Srisaard (2002), as shown in Table 1. Standard deviation (SD) was also used to determine the spread of the distribution of means.

#### 3. Results

This section presents a summary of the data collected from the industrial pharmacists through the questionnaire survey. The results were divided into three parts: (a) demographic data, (b) the use of English skills, and (c) problems with English usage.

# 3.1 Demographic Data

The demographic information derived from 51 industrial pharmacists. The number of returned questionnaires was 51, representing a response rate of 100%. The demographic data were gathered from Part I of the questionnaire to elicit information regarding gender, age, and years of work experience, educational background, and positions, as presented in Table 2.

Table 2 shows the demographic characteristics of the participants. The number of female pharmacists was twice that of male pharmacists, showing a female predominance. About a half of the participants (49%) were aged between 21 and 30, 47% were aged between 31 and 40, and few of them (4%) were aged over 40.

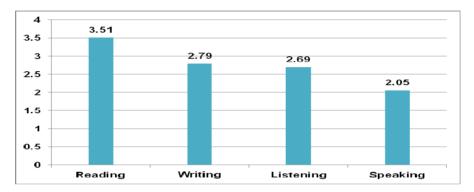


Figure 1. The overall levels of English skills usage

Table 3. Levels of reading and writing skills usage

Skill	Routine tasks	Mea	nS.D Level
Readin	g1. Reading letters or emails	4.20	1.02High
	2. Reading protocols and reports concerning quality assurance and validations	3.92	1.06High
	3. Reading pharmacopoeias and text books regarding pharmaceutical sciences an technology	d <sub>3.63</sub>	1.22High
	4. Reading standard operating procedures or work instructions	3.63	1.04High
	5. Reading guidelines and references on laws and regulations of pharmaceutica manufacturing and product registration	<sup>1</sup> 3.61	0.9 High
	6. Reading manuals of manufacturing machines or laboratory equipment	3.35	1.13Moderate
	7. Reading training materials	3.24	0.97Moderate
	8. Reading minutes of meetings	3.12	0.97Moderate
	9. Reading manuals of software regarding production planning or QC laborator equipment	y <sub>2.86</sub>	1.13Moderate
	Average	3.51	1.05High
Writing	g 1. Composing letters or emails	4.02	1.12High
	2. Writing standard operating procedures or work instructions	3.16	1.12Moderate
	3. Establishing quality assurance/validation protocols and reports	3.04	1.3 Moderate
	4. Preparing presentations for project proposal or progress reports	2.82	1.16Moderate
	5. Writing minutes of meetings	2.69	1.12Moderate
	6. Writing manuals for manufacturing machines or laboratory equipment	2.43	1.08Moderate
	7. Preparing training materials	2.41	0.92Moderate
	8. Writing analytical methods and product specifications	2.41	1.36Moderate
	9. Preparing product registration dossiers	2.16	1.16Moderate
	Average	2.79	1.15Moderate

Table 4. Levels of listening and writing skills usage

Skill	Routine tasks		nS.D Level	
Listenin	1. Listening to colleagues, customers, suppliers or auditors in face-to-fac discussions	e <sub>3.00</sub>	1.02Moderate	
	2. Listening in audit wrap-up meetings	2.73	1.1 Moderate	
	3. Listening in internal meetings	2.69	1.01Moderate	
	4. Listening in seminars, conferences or training courses regarding pharmaceutical knowledge and technology	<sup>9</sup> 2.65	0.84Moderate	
	5. Listening to bosses while discussing work-related matters		1.02Moderate	
	6. Listening to colleagues, customers, suppliers or auditors while discussing work-related matters by phone or teleconference	<sup>9</sup> 2.41	1.13Low	
	Average		1.02Moderate	
Speakin	Speaking 1. Face-to-face discussions with non-Thai speaking colleagues, customers, 2.59 visitors, suppliers or auditors			
	2. Negotiating with non-Thai speaking colleagues, customers, visitors, supplier or auditors	s <sub>2.22</sub>	1.12Low	
	3. Discussing work-related matters with non-Thai speaking bosses		1.05Low	
	4. Discussing with non-Thai speaking colleagues, customers, visitors, suppliers of auditors by phone or teleconference	r <sub>2.16</sub>	1.05Low	
	5. Discussing work-related matters in internal meetings	1.82	0.99Low	
	6. Presenting work progresses or reports in a weekly, monthly or yearly meetings	1.71	0.97Low	
	7. Instructing, explaining, or demonstrating in seminars or training courses	1.67	0.95Low	
	Average	2.05	1.04Low	

The educational background revealed that the majority of the participants (69%) held a Bachelor's Degree as their highest degree. Nearly two-thirds of the pharmacists held a Master's degree, but a very small percentage (2%) held a Doctoral Degree. More than half of them (53%) identified English courses at their university as General English, while a smaller percentage (43%) took courses in General English and English for Specific Purposes.

Almost half of the participants (47%) had 1 to 5 years' experience in pharmaceutical manufacturing. One-third of them (33%) had experience of between 6 to 10 years, whereas some had longer working experiences of between 11 and 15 years. Only a few (4%) had working experience of over 15 years. The majority of industrial pharmacists (78%) took a non-managerial position, nearly four times greater than that of a managerial position (22%). They had different job responsibilities, with the top three categories being Quality Assurance (43%), Production (29%) and Quality Control (16%).

#### 3.2 The Use of English Skills

This section presents the findings of the English skill usage of Thai industrial pharmacists. They were asked to rate the frequency of their routine communicative tasks in four English skills. The mean rating for levels of English use was interpreted as follows: 1.00-1.50 = Very low, 1.51-2.50 = Low, 2.51-3.50 = Moderate, 3.51-4.50 = High and 4.51-5.00 = Very high.

The overall results of English skills usage was first presented in Figure 1. Next, the detailed results for each skill are presented in Tables 3-4. As can be seen in Figure 1, the skill which received the highest mean score was 'reading' (3.48), followed by 'writing skills' (2.79), 'listening skills' (2.69), and 'speaking skills' (2.05). This indicated that the industrial pharmacists used reading skills at work more frequently than writing, listening and speaking skills, respectively.

Table 3 shows the frequency of reading and writing tasks that the industrial pharmacists used. As can be seen, the average mean of reading skills use sits at the highest level (3.51). Five out of nine routine tasks obtained mean scores over than 3.51, indicating that Thai industrial pharmacists used reading tasks more so than other skills. The top three routine reading tasks are reading letters or emails (4.02), reading protocols or plans and reports concerning quality assurance and validations (3.92), and reading pharmacopoeias and text books regarding pharmaceutical sciences and technology (3.63). On average, writing skills were used at a moderate level, with a mean score of 2.79. Composing letters or emails for work-related matters was the only writing task that obtained

a mean score of 4.02, indicating that Thai industrial pharmacists performed writing tasks at a high level. The top three routine tasks are: composing letters or emails (4.02), writing standard operating procedures or work instructions (3.16), and establishing quality assurance/validation protocols and reports (3.04).

Table 4 presents the levels of listening skills usage in routine tasks of industrial pharmacists. On average, the industrial pharmacists used listening skills in their routine work at a moderate level. Five out of six listening tasks obtained mean scores which indicated a moderate level of English use. The top three routine tasks are: listening to colleagues, customers, and suppliers or auditors while discussing work-related matters face-to-face (3.00), listening in audit wrap-up meetings (2.73), and listening in internal meetings (2.69).

The overall findings show that performing routine speaking tasks was at a low level, with an average mean score of 2.05. The top three routine tasks are contact with non-Thai speaking colleagues, customers, visitors, suppliers or auditors in face-to-face discussions (2.59), negotiations (2.22), discussions by phone/teleconference, and discussing work-related matters with bosses (2.16).

The researcher observed a great difference in the levels of oral communication skill usage between managerial and non-managerial pharmacists. As shown in Figure 2, managerial pharmacists had much higher mean scores in oral communication skills. This indicated that managerial pharmacists used oral communication skills much more frequently than non-managerial pharmacists. This reflected that different job position levels might require different levels of English skills needed. Thus, more studies should be conducted to investigate the differences between English skills used, particularly between managerial and non-managerial pharmacists, in order to gain a better understanding of English skill use.

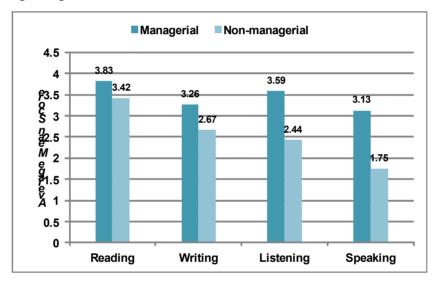


Figure 2. English skills used by managerial and non-managerial pharmacists

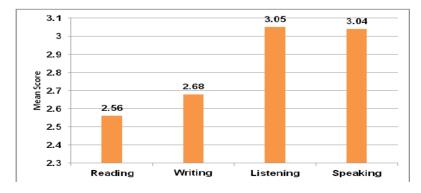


Figure 3. The overall levels of english problems

Table 5. Levels of listening and speaking problems

Skill	Problems	MeanS.D.Level		
Listenin	Listening1. Understanding fast speech			
	2. Understanding unfamiliar accents e.g., Japanese, German, Indian Singaporean English speakers.	or <sub>3.51</sub>	0.99High	
	3. Understanding lengthy speech.			
	4. Getting anxious when listening during having conversations with foreigners	3.04	1.06Moderate	
	5. Understanding details of spoken messages	2.94	0.86Moderate	
	6. Getting the main ideas of spoken messages	2.78	0.88Moderate	
	7. Lacking knowledge of general vocabulary	2.75	0.89Moderate	
	8. Lacking knowledge of technical terminology	2.67	0.84Moderate	
	Average	3.05	0.94Moderate	
Speakin	Speaking 1. Making word choices			
	2. Pronouncing words properly	3.20	1.10Moderate	
	3. Getting anxious in conversations with foreigners	3.16	1.14Moderate	
	4. Entering discussion politely and properly	3.16	1.05Moderate	
	5. Producing complete and grammatically correct sentences	3.04	0.96Moderate	
	6. Responding at a proper time during conversations	2.90	1.04Moderate	
	7. Lacking knowledge of technical terminology	2.88	0.84Moderate	
	8. Lacking knowledge of general vocabulary		0.92Moderate	
	Average	3.04	1.00Moderate	

#### 3.3 Problems with English Usage

The problems with English usage are divided into four skills: reading, writing, listening and speaking. The problem levels were interpreted through a mean rating from 1 to 5 (1.00-1.50 = Very low, 1.51-2.50 = Low, 2.51-3.50 = Moderate, 3.51-4.50 = High, and 4.51-5.00 = Very high).

Figure 3 shows that listening problems received the highest average mean score (3.05), followed by speaking (3.04), writing (2.68) and reading problems (2.56). This indicated that, overall, industrial pharmacists encountered listening and speaking problems within the workplace at a greater level than writing and reading problems.

Table 5 shows the levels of listening and speaking problems which industrial pharmacists encountered in their routine work. Overall, industrial pharmacists experienced listening problems at a moderate level, with a mean score of 3.05. It is also worth noting that understanding rapid speech and unfamiliar accents were the only two problems which denoted a high level. The top three listening problems understood rapid speech (3.55), unfamiliar accents (3.51) and lengthy speech (3.16).

Overall, industrial pharmacists faced speaking problems at a moderate level. The top three speaking problems were: making choices of words and pronouncing words properly (3.20), getting anxious when having conversations with foreigners and entering discussions politely and properly (3.16), and producing complete and grammatically correct sentences (3.04).

Table 6 presents the levels of writing and reading problems which industrial pharmacists encountered in their routine work. Overall, industrial pharmacists encountered writing problems at a moderate level. Making choices of words was the greatest writing problem. The top three writing problems were: making choices of words (3.06), having time constraints (2.84) and lacking knowledge of general vocabulary (2.75). It is worth noting that four out of five top writing problems were semantically-related.

Overall, industrial pharmacists faced reading problems at a moderate level, with an average mean score of 2.56, showing the lowest level of problems. Lacking knowledge of idioms and slang was the biggest reading problem. The top three reading problems were lacking knowledge of idioms and slang (3.35), general vocabulary (2.71) and lacking knowledge of technical terminology (2.69).

Table 6. Level of writing and reading problems

Skill	Problems Mean S		S.D. Level
Writing	1. Making choices of words	3.06	0.81 Moderate
	2. Having time constraints	2.84	0.95 Moderate
	3. Lacking knowledge of general vocabulary	2.75	0.87 Moderate
	4. Lacking knowledge of technical terminology	2.73	1.00 Moderate
	5. Lacking knowledge of idioms and slang	2.71	1.04 Moderate
	6. Linking and organizing a paragraph	2.53	0.83 Moderate
	7. Difficult to appropriately structure ideas in writing	2.45	0.92 Low
	8. Lacking knowledge of subject matter	2.33	0.84 Low
	Average	2.68	0.91 Moderate
Reading	1. Lacking knowledge of idioms and slang	3.35	1.04 Moderate
	2. Lacking knowledge of general vocabulary	2.71	0.86 Moderate
	3. Lacking knowledge of technical terminology	2.69	0.91 Moderate
	4. Lacking knowledge of sentences and grammatical structures	2.61	0.96 Moderate
	5. Having time constraints	2.51	0.90 Moderate
	6. Inability to get the main idea	2.24	0.91 Low
	7. Inability to understand detail	2.18	0.77 Low
	8. Lacking knowledge of subject matter	2.18	0.79 Low
	Average	2.56	0.89 Moderate

#### 4. Discussion

This section presents discussions based upon the findings.

#### 4.1 English Skill Use for Thai Industrial Pharmacists

This survey study shows the four English skills used by Thai industrial pharmacists. The findings show that reading was the most frequently used skill. This can be explained by two plausible reasons. First, the complexity of reference documents which industrial pharmacists use demands industrial pharmacists to use reading skills on a regular basis. The technical documents (e.g., validation reports and procedural documents) which industrial pharmacists produce in their routine operations are scientific-based and technically complex. In order to ensure accurate and updated information, they need to crosscheck and review scientific and technical references, textbooks, guidance, and publications in the pharmaceutical fields which are available in English.

Second, email communication has become the most common channel of reading skill use in the pharmaceutical industry. Industrial pharmacists write emails to exchange technical information with international clients and health authorities for many reasons. First, technical documents are often too complicated to verbally explain face-to-face or on the phone, thus leaving documents in emails for retrospective review is needed. In addition, some technical documents must be exchanged as documentary evidence which is important to prove manufacturer compliance to certain regulatory or client requirements. Along a similar line, Evans (2010), found that emails were the most important communication channels that promoted English use of professionals in Hong Kong's service industries. The findings in this study showed that industrial pharmacists often read and wrote emails in English at work.

Reading skills were vital for professionals at hospitals and for industrial pharmacists. Previous studies on English skill usage of professionals in the hospital context revealed the predominance of reading skills over other English skills. According to Phutirat & Suwannapatama (2007), hospital pharmacists expressed the greatest need of reading skills for routine work. Likewise, Thongtang (2009) found that reading skills were the most frequently used skills in personal and professional life of hospital professionals. Along similar lines, industrial pharmacists in this study rated reading as the most frequently used skill to perform their routine tasks.

However, routine communicative tasks performed by industrial pharmacists were clearly distinct from those performed by hospital pharmacists in three aspects. First, key conversational counterparts of hospital and industrial pharmacists came from different communities and had different social status. While hospital pharmacists communicate with foreign patients, industrial pharmacists communicate with different key conversational counterparts (e.g. colleagues, suppliers, auditors, clients and bosses). Second, oral communicative

events in hospital and industrial contexts are different. While oral communicative events in hospitals are mainly concerned with patient counseling, those in pharmaceutical manufacturers are mainly concerned with face-to-face or phone conversations with various non-Thai speaking people at work. Finally, key written documents of industrial pharmacists (e.g. validation reports and procedural documents) were longer and more complicated, and required higher levels of writing skills.

The identified routine communicative tasks in this study have affirmed the existence of some gaps between ESP curriculums for pharmacy students and the real English needs within the pharmaceutical industry. Most ESP curriculums for pharmacy students at university ("TU English for Health Science Course Outline", 2012; "KKU Pharmacy Course Outlines", 2013) place an emphasis on academic reading and writing, and oral communication in patient counseling. These curricula have not incorporated various routine communicative events typically occurring in the workplace of industrial pharmacists (e.g., writing validations and instructional documents, oral communications with foreign colleagues, suppliers, bosses, and customers at workplaces). A mismatch between university English curricula for engineering students and the real workplace English communication needs have been revealed in previous studies, Mohamed, Radzuan, Kassim, and Ali (2014) suggested a mutual cooperation of engineering employers, universities, and ESP trainers in the revision of the existing English curriculum for engineers. Along the same line, course developers should incorporate specific communicative scenarios in the pharmaceutical industry into the ESP curriculums for pharmacy students, in order to meet the real needs of industrial pharmacists in multinational settings.

#### 4.2 Problems with English Usage for Thai Industrial Pharmacists

Oral communication skills, including listening and speaking skills, were the major problems highlighted for industrial pharmacists. The findings showed that listening skills were the greatest problem, followed by speaking skills. Writing skills were ranked in third place, while reading skills were the least significant problem. In accordance with findings from previous studies, oral communication skills were more problematic for hospital pharmacists (Phutirat & Suwannapatama, 2007) and automotive engineers (Hart-Rawung, 2008) than written communication skills.

The higher occurrence of oral communication problems may result from three plausible reasons. First, oral communication skills have been less developed than written communication skills because industrial pharmacists have fewer opportunities to engage in oral communication in the workplace, leading to a greater level of oral communication problems. This explanation is well supported by an argument of Scarcella (1990) stating that adult learners are often unsuccessful in developing their conversational competence due to limited exposure to the language.

Second, industrial pharmacists can easily complete self-study and have greater success at self-improvement in written communication skills. Basically, language learners can easily practice written communication skills by themselves, anywhere and at any time. For example, learners may practice written communication skills at work by reviewing language use in emails sent by native English speakers and at home by reading English newspapers or articles. By contrast, learners encounter greater difficulties with oral communication skills because this requires listeners and speakers to interact in conversations (Rubin & Thompson, 1994). Therefore, self-practice in oral communication skills is less likely to be successful.

Third, language anxiety may discourage industrial pharmacists from mastering oral communication skills. Stephan & Stephan (1992) noted that people who become anxious when attempting to communicate with different people often avoid interacting in conversations to reduce anxiety. Along the same lines, Tanveer (2007) demonstrated that socio-cultural factors (e.g., social status, cultural differences) may create language anxiety, which is a huge obstacle for the development of oral communication skills in ESL/EFL learners. Thus, it is probable that language anxiety hinders industrial pharmacists in regard to mastering oral communication skills, and this leads to greater levels of oral communication problems.

Industrial pharmacists have both linguistic and sociolinguistic problems. In written communication skill use, the majority of problems result from linguistic issues, such as inadequate vocabulary and grammatical knowledge. By contrast, linguistic and sociolinguistic problems are important issues in oral communication. Apart from linguistic problems, such as trouble with word choice, accents, pronunciation, and rapid speech, industrial pharmacists rated some sociolinguistic problems, such as entering discussions politely and language anxiety, amongst the top three oral communication problems. Likewise, Kardkarnklai (2012) found Thai professionals in international workplace having various difficulties in oral communication e.g., 'resolving communication conflict in multi-cultural settings', 'accommodating different accents and a variety of English', and 'pragmatic competence'. This indicates that industrial pharmacists and Thai professionals need all three components in a

communicative competence framework (Canale & Swain, 1980) which are grammatical, sociolinguistic, and strategic competence.

Based on these findings, university ESP curricula for pharmacy students should be revised to focus more on the oral communication skills employed in the pharmaceutical industry context. Most current university ESP curricula for pharmacy students focused primarily on developing the four skills of language and English use in pharmacist-patient counseling. In multinational pharmaceutical manufacturers, industrial pharmacists needed to use English to communicate with overseas colleagues, suppliers, customers and auditors in a variety of situations, such as email communication, face-to-face and telephone conversations, internal meetings, audit events, and the routine use of technical documents including validation reports and procedural documents. These oral communicative scenarios should be incorporated into ESP curricula so that pharmacy students wishing to work in a multinational pharmaceutical setting can use English appropriately and professionally in their future careers.

In addition to oral communication skills, ESP curricula for pharmacy students should have an optimal balance among the three components of communicative competence. To engage in oral communications in a socially appropriate way, industrial pharmacists cannot only have grammatical competence. To be professional, they should also have adequate sociolinguistic competence and sociocultural knowledge in order to offer ideas in meetings, enter into discussions, and negotiate audit findings with auditors in an assertive yet polite way. Furthermore, industrial pharmacists should be able to use the appropriate English for professional people with higher social status, such as managers, auditors, and customers. Therefore, to overcome oral communication problems and use English appropriately in the industrial setting, industrial pharmacists should acquire all three components of communicative competence.

#### 4.3 Limitations and Recommendations for Further Studies

This study has some limitations and recommendations. First, the present study was rather small. The results may not be generalized across to industrial pharmacists in other multinational manufacturers, and pharmacists in other pharmaceutical sectors (e.g., hospitals and community pharmacies). More research on industrial pharmacists in multinational pharmaceutical manufacturers should be conducted, to provide a better understanding of target English situations in the pharmaceutical industry.

Second, the reliability of the instrument may be limited, due to the use of a self-reporting method which may result in potential sources of bias, including selective memory, telescoping and exaggeration (Brutus et al., 2013). To obtain more reliable data, future research should use different types of instrument to provide other data sources; for example, on-the-job observations and interviews and onsite document reviews.

Third, the findings offer only some insights into necessities, and lacks definition of some parts of the target situation analysis (Hutchinson & Waters, 1987). Unfortunately, this study was still unable to determine learning needs and learner wants, which are remaining parts of the target needs analysis. More research on learning needs should be conducted, to identify teaching and learning methods, in order to obtain more helpful data for improving university ESP courses.

Finally, English usage and associated problems in the same profession may be different, depending upon other situational factors of each individual worker, such as job position, and work experience (Chalardsit, 2007). This study cannot make clear differences between individual pharmacists with different job levels. Thus, more research should be conducted to recognize the difference between English usage and problems of the non-managerial and managerial pharmacists, which may provide helpful data for the pharmacists about relevant English skills needed to advance their professional career and job promotions.

#### 4.4 Conclusion

The findings in the present study reveal authentic use of English, and affirmed the actual existence of English communication problems in the pharmaceutical industry. It is hoped that the pharmaceutical profession benefits, since the study has identified routine tasks which require industrial pharmacists to use the four English skills, and the problems that they still needed to resolve. These findings reflect some gaps in the real pharmaceutical industry needs of English skills, and have provided some inputs for ESP course development. Therefore, it remains challenging for the pharmaceutical educators and the ESP course designers to develop ESP courses which meet the needs of English requirements within the pharmaceutical industry.

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# The Arabic Language Level of Candidates for Malaysia Religion High Certificate (MRHC): Reading and Grammar

Ismail Muhamad<sup>1</sup>, Hazwan Abdul Rahman<sup>2</sup> & Azman Che Mat<sup>3</sup>

Correspondence: Azman Che Mat, Academy of Language Studies, Universiti Teknologi MARA (UiTM), Dungun Campus, 23000 Dungun, Terengganu, Malaysia. E-mail: azman531@tganu.uitm.edu.my

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#### Abstract

Malaysia Religion High Certificate (STAM) examination is a Malaysian student's eligibility to study in the Middle East. STAM was introduced in 2000 as a result of a Memorandum of Understanding Cultural Agreement between the Governments of Malaysia and the Arab Republic of Egypt in November 1999. But many STAM graduates who took the language test at the university had failed to get the level of qualification and had to take Arabic classes at the language center before pursuing studies at the undergraduate level. This study aims to identify the level of text reading in Arabic among STAM candidates and Arabic grammar skills. Therefore, the researchers aim of 52 students who is a STAM candidate to participate in this study. The approach used in this study is quantitative; wherein the information gathered is presented in the Figures. Data collection using a measurement tool based on the study of texts authored by Sheikh Yusuf al-Qaradawi containing 448 words. Comprehension and grammar skills tests were done for collecting data and then presented into numbers. The findings showed that the respondents' reading and grammar level are moderate. Therefore, it is recommended that students who will take the STAM are given proper guidance so that they can improve their Arabic language proficiency before pursuing studies at tertiary institutions.

**Key words:** proficiency, reading, syntax, candidate, STAM

#### 1. Introduction

Generally, language skills are categorized into two types of communication, the received and conveyed communications. Received communications are associated with listening and reading skills. Whereas conveyed communication is related to speaking and writing (Talib, 1993, p. 35). Reading is a language skill activity that aims at understanding any written materials. It is not considered as a language skill activity if the purpose of reading is not to give a solid comprehension (Dawud, 1990, p. 15). Thus, reading skill is one's ability to effectively understand the messages or information that the author presented in writing. Al Ramini (2009, p. 53) further explains that reading is one of the essential skills in the process of teaching and learning, coming in second after listening skill as a mean to gather information, details as well as recognizing people's feelings.

Language proficiency is identified through familiarity and discern of vocabulary particularly in forms and sounds of letters, as well as meanings. Students are also required to master grammatical rules and assimilate them with all four aspects of language skills which cover listening, speaking, reading and writing (Husin, 1988, p. 274; Tu'aimah, 1985, p. 167; Aziz, 1983, p. 138; Lado, 1980, p. 11).

However, the Arabic language is peculiar with variants that are not seen in any other languages of the world and these differences may be seen as unique features that reflect the language of the Quran. The language system of Arabic uses case endings in which certain lines [signs] are attached to the word's grammatical functions. They are  $marf\bar{u}^c$  (nominative),  $mans\bar{u}b$  (accusative), end (justitive) and  $majr\bar{u}r$  (genitive), which also represent word placements in sentences or better known as flexible case (Rahman & Mezah, 2010, p. 82). Therefore, one needs to read Arabic guided by these grammatical cases [signs] on each word to fully understand the meaning of a sentence.

<sup>&</sup>lt;sup>1</sup> Faculty of Social Development, Universiti Malaysia Terengganu, Terengganu, Malaysia

<sup>&</sup>lt;sup>2</sup> Institut al-Quran Terengganu, Kampus Padang Midin, Terengganu, Malaysia

<sup>&</sup>lt;sup>3</sup> Academy of Language Studies, Universiti Teknologi MARA (UiTM) Dungun, Terengganu, Malaysia

Mastery of the Arabic language is determined by students' capabilities in empowering the language through listening, speaking, reading and writing accompanied with the ability to apply all aspects of the language, which includes grammar (*nahu*), root words (*saraf*), vocabulary, and of course the Arabic writing system (Rusoff, 2008, p. 183; Ahmad et al., 2011, p. 385).

Malaysian Religion High Certificate (STAM) was introduced in the year 2000 as a result of an agreement between the Malaysian government and Arab Republic of Egypt in the Memorandum of Cultural Understanding in November 1999 (Rejab, 2001, p. 176). Number of enrollment has increased from 160 students in the year 2001 and up until the year 2007 a total of 670 students had registered. In 2011, 571 students managed to participate in a bachelor's program in Egypt. However, they were required to sit for the qualifying examination (*Imtihān Al-Qabul*) in advance. According to the performance report issued by the Malaysian Examination Board, only two students are eligible to attend lectures at the university whilst the remainder of 569 students had to take the Arabic language course in the Arabic Language Centre. The same report also stated that a number of 6584 students had failed in the exam. Such large number of failure surprised many people, especially examination boards, sponsors and parents of students (STAM Yearly Report, 2012). As such, this study intends to examine the level of Arabic language proficiency of STAM candidates based on these two objectives:

- 1) Identifying the level of reading comprehension in the Arabic language among students of Malaysian Religion High Certificate (STAM) at the Institute of Al-Quran in Terengganu.
- 2) Recognizing the level of Arabic syntax among students of Malaysian Religion High Certificate (STAM) at the Institute of the Al-Quran in Terengganu.

#### 2. Literature Review

Reading is not limited only to the mere process of transferring writing into language but it is also a skill of grasping and interpreting the meaning of written materials as well as verbal symbols (Harris & Sipay, 1981, p. 447; Husin, 1988, p. 157). Reading without comprehension of the written material is not considered as the actual act of reading (Dawud, 1990, p. 15). Abdul Aziz (1989, p. 254) and Lado (1980, p. 177) explained that reading is an act that yields understanding as well as recognition of words and pronunciation. The most important part of reading is the actual comprehension itself even when reader is unable to pronounce each word fluently.

Comprehension means the ability to establish, interpret as well as evaluate anything that relates to what is being read. It is also a process of retrieving meaning via communicative tools, either verbal, written or of specific symbols, at the same time encompassing complex mental processes such as identification, selection of meaning, forming generalization and providing assessment (Rohani, 1987, p. 167). According to Harris and Sipay (1981, p. 8), comprehensive reading is a result of interaction between perception towards graphical symbols that represents an individual's skills in reading and knowledge in grammar. Thus, the act of reading and the ability to comprehend what is being read is a relationship that complements each other. Without comprehension, a reading action is incomplete and is not valid (Yusoff, 1999, p. 85; Zalizan, 1987, p. 115).

There are several sets of skills that need to be mastered in the aspect of reading Arabic. They are:

- 1) Reading speed: the length of time taken by a normal student to form words being read to the next word.
- 2) Intonation: student's ability to style voice tones in accordance with the changes in a sentence and idiolect used.
- 3) Reading has to be parallel with the language's discourse.
- 4) Placements of case endings on each word according to Arabic syntax.
- 5) Proper utterance of each word.
- 6) Recognizing the peculiarity in different letters with similar sounds.
- 7) Pronunciation of phonemes is precisely on makhraj.
- 8) Correct pronunciation of each letters with the character it represents.
- 9) Avoiding speech errors: inaccuracy that stems from defects in speech tools and slow growth rates.

Arabic syntatactic aspects play an important role in reading Arabic. This is because in Malay or English, words are uttered and pronounced based on spelling and syllable (Suhaila et al., 2001). Whereas Arabic words need specific grammatical cases [signs] on each letter to form a word with meanings. Which is why it is crucial to have proper knowledge on every aspect of Arabic syntax so they can be applied into text comprehension. This study focuses on some essential Arabic syntax such as:

# 1) Mubtada' (مبتدأ) Subject

*Mubtada'* refers to Nouns in Arabic (Jinnī, 1988, p. 29) or Derivatives (Hishām, 1997, p. 106). In which the subject is placed with a suffix (*i'rab*) of a nominative case ending (*raf'*) in accordance with its position, which is at the beginning of a sentence. For example:

```
نكى: "The student (he) is smart"
```

The example above shows that the word (الطالب) is a *mubtada*'. It is also known as a noun that is placed at the beginning of a sentence (al-Khammāsh, 2007, p. 109). The nominative case ending seen on the last letter *ba*', denotes the placement of *i'rab*.

#### 2) Khabar (خبر) Predicate

Khabar is an important element in the completion of a sentence along with *Mubtada'*. Three types of *Khabar*, they are *khabar mufad*, *khabar jumlah* and *shibih jumlah*. (Jinnī, 1988, p. 29; al-Maghālasah, 2007, p. 228; <sup>c</sup>Aqil, 1990, p. 175; Mustafā, 2007, p. 252). *Khabar mufrad* consists of the noun *jāmid* and verb *mushtaq*. (Hishām, 1997, p. 109). Placement of *i'rab* is similar to *mubtada'*. For example:

```
"Khalid is a hardworking boy: 'خالد مجتهدٌ: "Khalid is a hardworking boy
```

The sentence above shows that the word (مجتهد) is the adjective *mushtaq* derived from the verb (اجتهد). The nominative case ending on the letter  $d\bar{a}l$  makes it a *khabar*.

```
زوجته قمرٌ: "His wife (is like) the moon"
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Whereas in this second example, the word (قصر) is the noun *jāmid*, which is a noun that does not derive from a verb. (Babitī 1992: 402). Again, the nominative case ending on the letter *ra* makes it a *khabar*.

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3) Fa'il (فاعل) Doer
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Nominative noun that comes after a verb in an active sentence. It refers to a person committing an act or an act deemed on someone (al-Shajrāwi, 2001, p. 165; Ali & Mustafa, 2007, p. 37). *Fa'il* comes in several conditions, such as *ism Sarīh*, *bāriz* or hidden pronouns and invented derivatives (al-Shajrāwi, 2001, p. 166; al\_Bayjūri 2011, p. 100). For example:

```
"Zaid has stood (up): "قام زيدٌ
```

The above example puts Zaid as a fa'il (doer) in the form of Ism Sarīh with nominative case ending as an i'rab.

4) Maf'ūl bih (مفعول به) Object (that follows after the verb)

Nouns denoting something or someone that the verb is being done to. Marked by the accusative case ending as its *i'rab* (al-Qirshī, 2004, p. 94; Ali & Mustafa, 2007, p. 40). It is found in two conditions, firstly, to indicate an act that has already occurred and secondly, an act that has yet to happen (al-Maghālasah, 2007, p. 331). Examples are as follows:

```
"I honored the guests" أكرمت الضيف
```

"The wolf was devouring a goat" أكل الذئب الخروف

#### 5) *Ism majrūr* Nouns preceded by Prepositions

Genitive nouns placed after jar particles or additions (idafah) or tabi' in the previous  $ism\ majrur$  (al-Maghālasah 2007: 431). The nouns being either  $Sar\bar{\imath}h$  or mushtaq in the form of mufrad, the  $i^cr\bar{\imath}ab$  would be of genitive case ending, as shown below:

```
"I walked passed a man" :مررتُ برجلٍ
```

In the sentence above, the word u is classified as u with genitive case ending because it was preceded by the jar particle u.

6) Na't ism majrur (نعت اسم مجرور) Description of Nouns preceded by Prepositions

*Na't* is *tabi'ah* (adjectives) that gives meaning to *matbu'* (objects being described) or taken under *matbu'* (al-Qirshī, 2004, p. 163). It can appear in forms of genitive, accusative as well as nominative after a certain noun to further describe it (al-Maghālasah, 2007, p. 459). Thus, *na't ism majrur* is a *mushtaq* Noun that comes after *ism majrur*. Below is an example of a sentence with the genitive case endings (*kasra*) as an *i*<sup>c</sup>rab:

```
"Prophet Muhammad SAW said in his noble hadith" :قال محمد صلى الله عليه وسلم في الحديث الشريف
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The word الشريف is the *na't ism majrur* with genitive case endings which describes the noun الحديث which is preceded by the *jar* particle في

Based on this discussion, the constructs in the measurement tools were made with the purpose of gathering information needed for this research, which is further explained in the research methodology.

#### 3. Methodology

The format of this study is based on the qualitative approach in terms of data collection and uses quantitive approach to interpret the data. The methodology of this study includes:

#### 3.1 Participants

Participants in this study consisted of all students from the Al-Quran Institute of Terengganu undertaking the Malaysian Higher Religion Certificate (STAM) of 2012. The total number of samples was 52 students, of which 32 are boys and 20 are girls.

# 3.2 Measurement Tools

In assessing the comprehension of the Arabic language, researcher has chosen a text written by Syeikh Yusuf al-Qardawi from the website: islamonline.com. The text consists of 448 words, which is the recommended length by Ahmad Tu'aimah (1985, p. 372).

The same text was chosen to assess the understanding of Arabic syntax as well as identifying the frequency of its errors. And from there, researchers cited a total of 18 sentences from the passage with constructs of Arabic syntax that this study is focusing at.

#### 1) Arabic passage comprehension test set.

In this test, students are given the Arabic text passage with 50 blanks to be filled in. Discussions on this test can be found in chapter two under the sub topic Kloz technique, as a tool to evaluate comprehension and level of general reading. Each blank comes with an indirect multiple choice answer. This is because the objectivity of scoring is higher, at the same time ensuring a consistent method of measurement and total scores which are more reliable in assessing the level of comprehension (Aziz, 1989, p. 307). This test was conducted in silent reading and was carried out on students at the same time.

#### 2) Arabic syntax diagnostic test set.

There are 18 questions in this test which represent all 18 sentences cited from the full passage. These sentences are chosen based on constructed Arabic syntactic which is the main focus of this study. Each sentence is provided with a long blank line with three choices of answers. There is only one correct answer. This test is performed individually and students are required to read aloud.

#### 3.3 Analysis

The collected data in this study is further analyzed with the Statistical Package of Social Sciences (SPPS) 14.0 software. As a result, the coefficient reliability score of the items in the reading comprehension test is .732. Meanwhile the Arabic syntax test scored .788.

#### 1) Comprehension level and stages of general reading.

According to Ta'imah (1985, p. 379), the Kloz technique uses two ways of marking answer sheets, which is when students' answer matches exactly with the original passage or when answers are applicable to the sentences in the passage. However, most researchers are keener on giving marks only when students give the right answer. The rationale in this preference of grading scheme is that it saves more time and prevents biasness amongst examiners.

In analysing Arabic reading comprehension, researchers are leaning more towards the right answer grading in which blanks are filled in with the original words from the passage. Marks are given in percentage by dividing correct answers and the total number of questions/blanks in the passage.

The reading comprehension marks will then be used as criteria to determine the level of general reading as what has been done by Davies and Vincent. There are three stages of general reading, namely, unattended reading, attended reading and the dissatisfactory stage. These three stages of reading comprehension is classified based on the total score in percentage, that is 75% to 100% for unattended reading, 26% to 74% for attended reading and 0% to 25% dissatisfactory. These specific scales are constructed with purposes which are related to students' level of reading comprehension as well general reading stages.

#### 2) Level of Arabic syntax proficiency

The diagnostic test marks obtained will be put into the Table of distribution frequency to facilitate data analysing and interpretation of students' understanding and performances. The scores will then be summed up to get a min

score in the diagnostic test of Arabic syntax. The level of students' competency is determined based on the assessment scale being used by the Malaysian Religion Higher Certificate, Malaysian Examination Board.

#### 4. Findings

Based on analysis, the discussion in this subtopic can be divided into two parts. Specifically, the analysis of reading proficiency and the analysis of syntactic understanding of respondents.

#### 4.1 Reading Proficiency

The distribution of scores obtained from the reading proficiency test is shown below, in Figure 1. The result shows that scores of 54% and 56% had the highest frequency with a total of seven students. Meanwhile, the five scores which rank the lowest are 32%, 68%, 70%, and 76% with only 1 student each. Whereas the maximum score is 76% and minimum is 32%. (See Figure 1).

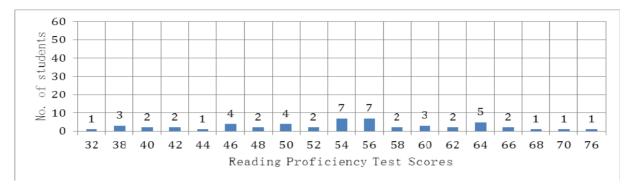


Figure 1. Distribution of reading proficiency scores

Referring to Table 1, only 1 student, representing the 1.92% obtained the score in between 75% to 100%, which means that the student sits at the level of unattended reading. There are 51 students representing the other 98.08% scoring in between 26% to 74% placing them in the level of attended reading. Meanwhile no students were reported to fall into the dissatisfactory level. (see Table 1).

Table 1. Level of reading proficiency by frequency

Range of Scores (x)	Stages of general reading	Frequency (f)	Percentage (%)
75% to100%	Unattended	1	1.92
26% to 74%	Attended	51	98.08
0% to 25%	Dissatisfactory	0	0
N		52	100

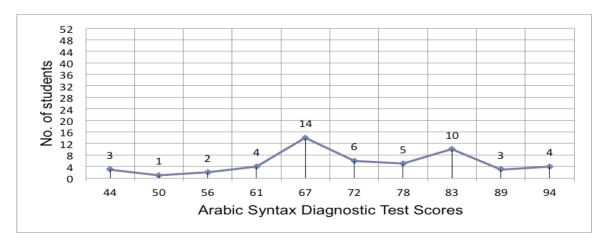


Figure 2. Distribution of arabic syntax diagnostic test scores

#### 4.2 Syntactic Competency

Figure 2 is showing the distribution of scores gathered from the Arabic syntax diagnostic test. Analysis resulted in placing 67% as the score with the highest frequency with a total of 14 students, followed by 83% with 10 students. Whereas the score with the lowest frequency is 50% with only 1 student. The maximum score is 94% and minimum is 50%. (see Figure 2).

Refering to Table 2, 17 students representing 32.69% obtained scores in between of 80% to 100%, which means that they are placed on top in the highest level. Meanwhile 32 students in the other 61.54% scored 55% to 79% putting them in the moderate group. Whilst only 3 students or 5.77% scored 0% to 54% placing them the in all three levels. (see Table 2).

Table 2. Level of Arabic syntax competency by frequency

Range of Scores (x)	Level of Arabic Syntax Competency	Frequency (f)	Percentage (%)
80-100	Excellent	17	32.69
55-79	Moderate	32	61.54
00-54	Weak	3	5.77
N		52	100

Based on Table 3 above, min score for the construction of *Ism Majrūr* is 16.36. Followed by *Mubtada'* which is 15.18. Subsequently, construction of *fa'il* with min score of 12.08 and *khabar* 11.76. Whereas *Na't Ism Majrūr* has the min score of 10.3 and lastly *Maf'ūl Bih* with 7.59. (see Table 3).

Table 3. Min score of diagnostic tests based on construct

Construction	Item	Min Score	
Mubtada	7, 10 dan 14	15.18	
Khabar	8, 11 dan 15	11.76	
Maf <sup>e</sup> ūl Bih	2, 5 dan 16	7.59	
$Far{a}^cil$	3, 6 dan 12	12.08	
Ism Majrūr	1, 13 dan 17	16.36	
Na <sup>c</sup> t Ism Majrūr	4, 9 dan 18	10.3	
Total		73.34	

<sup>\*</sup>Total score of each construct is 16.67

This shows that students' knowledge on the construction of Maf'ūl Bih is much lesser than the other constructions since the obtained min score is the lowest, which is 7.59. Whereas students proved to understand the construction of Ism Majrūr very well, with the min score of 16.36.

## 5. Discussion

In general, the Arabic reading comprehension of students undertaking Malaysian Religion High Certificate (STAM) in the Institute of al-Quran, Terengganu is still at the level of attended reading with an average score of 53.73. It is believed that students are facing some difficulties in reading and comprehension, which means that students need to be given proper guidance and assistance in both aspects such as exposing them to a more effective reading strategy. In a study conducted by Poole (2009), both boys and girls tend to use the same reading strategy but girls seem to be diligent in the pursuit as compared to boys. Mokhtari & Sheorey (2002) also stated in their study that when students get creative in learning a certain foreign language, their grasp of the new language seems to be faster.

In order for improvements to take place, several reading strategies need to be implemented in the Arabic language classes. The study conducted by Morales & Holguin (2009) stated that students are supposed to be given guidance using the right reading strategy based on the reading materials, wherein learning modules have to stimulate students' minds to think and read at the same time, encourage students to learn independently and at the same time ensuring teachers are given adequate trainings so that they will be able to help students develop

their true potentials. Among the reasons which leads to this situation can be referred to students' lack of exposure in the style of language used in writing Arabic as well as limited knowledge of its vocabulary (Suhaila Ahmad et al., 2011, p. 417). Besides that, it can also be caused by incompetent language instructors, subject modules as well as inadequate teaching aids (Huwaydi et al., 2011, p. 705).

At the same time, reading materials need to be suitable and captivating so that students will be more interested to read in Arabic. Wherein this study had chosen a text, which is classified as academic reading that may cause most respondents to lose interest. A study by al-Nafisah & al-Shorman (2010) concluded that students of a Teacher's College tend to choose their literary reading materials based on interest, teacher's recommendations, and characters in the stories, length and quality of the reading materials as well as how much money they will have to pay for them. This can pretty much be related to the abilities in mastering reading comprehensive skills. The same study also mentioned that some respondents believed that reading skills is not as important as improving other language skills.

As for the understanding of Arabic syntax, students from the same institute are placed at the moderate level as the average score of the diagnostic Arabic syntax test is 72.52. Similar to the viewpoint of scholars in past studies stating that the aspect of Arabic syntax is the main problem especially when it comes to Malay students because more often than not, methods of teaching and students' expectations are never in line with each other (Mat & Goh, 2010). This may be caused by the method being used by language instructors teaching syntax depending solely on textbooks curriculum without taking into account students' abilities in the difficulty level of the constructions. Language teachers need to be more sensitive in this matter so that students will be able to comprehend the subject more effectively.

According to Naimah Abdullah (2003), Sulaiman Ismail (1996) did a research on errors in constructions of adjective phrases among high school students while Halim Daud (2001) was focusing more on object phrases in Arabic. Both studies supported research done by Raja Mohd Fauzi, Mowafak & Mohamed Amin (1999, p. 116) which stated that most religious school students in Malaysia do not have a strong command in the Arabic language, either in reading comprehension, writing, speaking or listening. At the same time, most Malaysian students are facing difficulties in mastering Arabic grammar as well (Zaman & Taib, 2011, p. 205). In fact, mistakes are often made in placements of grammatical case endings while reading (Salamiah et al., 2011, p. 389).

University undergraduates majoring in Islamic Studies are facing the same problems. Even though they are widely exposed with the Arabic language via textbooks and lectures, their grasp of the language is still below par. Idris, Siti Saudah & Roziah (2002, pp. 9-10) in their research stated that overall, the 52 students of Islamic Studies from the Islamic National University were still not able to master Arabic with excellence. Most students scored 50% to 62.5% putting them on the moderate level. Not even one student excelled with scores in between 75% to 100%. The most worrying part is that this could implicate things in the future as students' command of the language will deteriorate making it more difficult for them to understand the Quran, Hadiths as well as books of past scholars (Shahrin, 1995, p. 6).

## 6. Conclusion

The Arabic language is known to be the medium or *wasilah* for Muslims in strengthening Islam, faith and worship. Thus, the language holds a significant place in the Muslim community of different race and nations including the Malay Muslims. Teaching and learning of the Arabic language has to be improved from time to time and every party is responsible for it. Rooting from the curriculum makers and sprouting to all learners, each has a role to play in ensuring the level of Arabic language competency gets better towards achieving excellence.

Meanwhile, academicians need to look harder into what are lacking and all sorts of weaknesses students are facing in the process of learning Arabic. Perpetual studies for improvements in the field of Arabic linguistics should be given strong support and encouragement. Language instructors must also seek to find a way in ensuring students' comprehension covers every corner in the Arabic language commands. This is because putting Arabic into practice would require an excellent understanding in all aspects of the language such as syntax, morphology, phonology as well as vocabulary. The main challenge being faced here would be on finding ways to help students master all of them using the language skills approach. Translation approach for Arabic teaching is considered an alternative to enhance student skill in language acquisition. Mat (2011; Mat et al. 2014) suggest that appropriate Arabic to Malay translation process will give more understanding of Arabic structure and syntactic function.

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# Appendix A

Table A1. Scale of general reading criteria

Marks		Stages of General Reading	Description
0% to 25	5%	Dissatisfactory	Student faced a great deal of difficulties in reading and comprehension that led to frustration.
26% 74%	to	Attended	Student faced some difficulties and guidance is needed to help in reading and comprehension.
75% 100%	to	Unattended	Student is competent in reading and understanding what is being read without help or guidance.

Table A2. Scale of grammar (nahw) test marks

Range of Scores	Ranking	Level
	Mumtaz	Excellent
	Jayyid Jiddan	Madarata
	Jayyid	Moderate
	Maqbul	Weak
	Rasib	weak

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# Investigating the Performance of Islamic Banks in Bangladesh

Md. Ibrahim<sup>1</sup>, Kazi Deen Mohammad<sup>2</sup>, Nazamul Hoque<sup>1</sup> & Mohammad Aktaruzzaman Khan<sup>1</sup>

Correspondence: Md. Ibrahim, Department of Business Administration, International Islamic University Chittagong, Bangladesh. E-mail: ibrupom@yahoo.com

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#### Abstract

Around the world Islamic banking system is getting popularity gradually due to its multidimensional benefits. Consequently, many tradition banks have been converted (such as FSIBL and EIBBL) into Islamic Sharia'h based banks for the superiority of Islamic banking system. Thus, it is the curiosity of the investors, depositors, researchers and policy makers to know the performance of Islamic banks operating in Bangladesh. So, taking secondary data from the annual reports of the sample banks, the study has evaluated the performance of six Islamic banks listed at both Dhaka Stock Exchange (DSE) & Chittagong Stock Exchange (CSE) in terms of deposit; investment; foreign remittance collection; earnings per share (EPS); dividend declaration; dividend payout ratio; price earnings ratio (P/E) and net asset value (NAV). The study found that six Islamic banks have performed very well. Especially; Islami Bank Bangladesh Ltd. has shown outstanding performance in terms of every indicator. It is expected that the study will not only help the investors and depositors to make their decisions in more efficient way but also; it will motivate non-Islamic banks to convert their business mode according to Islamic Sharia'h.

**Keywords:** Islamic bank, performance, deposit, investment, earning per share (EPS)

#### 1. Introduction

The Islamic financial law has long history but Islamic banking and finance industry came into existence with profit and loss sharing investment by Egypt's Mit Ghamr Saving Banks in 1963. After official existence Islamic banking has grown in the area of finance, banking, insurance, mortgage, and assets management business with annual growth rate of 10-15%. But actual development in Islamic banking is started after 1970 with new investment techniques, strategies and product development (Steward, 2008). Dubai Islamic Bank (DIB) is known as world first Islamic bank it was formed in 1975. Currently it has 48 branches which great services. DIB offers higher returns than conventional banking system as well they provide auto, home and personal finance products (Platt, 2008).

The commercial banking system dominates Bangladesh's financial sector. Bangladesh Bank is the Central Bank of Bangladesh and the chief regulatory authority in the sector. After the independence, banking industry in Bangladesh started its journey with 6 nationalized commercialized banks, 2 State owned specialized banks and 3 Foreign Banks. In the 1980's banking industry achieved significant expansion with the entrance of private banks. Now, banks in Bangladesh are primarily of two types Scheduled Banks and Non-Scheduled Banks. There are 56 Scheduled Banks in Bangladesh. The Scheduled Banks are composed of 4 State Owned Commercial Banks; 4 Specialized Banks; 39 Private Commercial Banks of which 31 are Conventional & 8 are Islamic Sharia'h based; 9 Foreign Commercial Banks. There are now 4 Non-Scheduled Banks in Bangladesh (Bangladesh Bank, 2014).

Bangladesh has two Stock Exchanges, Dhaka Stock Exchange (DSE), established in 1954 where trading is conducted by Computerized Automated Trading System and Chittagong Stock Exchange (CSE), established in 1995 which is also conducted by Computerized Automated Trading System (SEC). There are 30 Commercial banks have been listed at both Stock Exchange (DSE & CSE) in Capital market of Bangladesh. Among the 30 banks, 23 are conventional and 07 are Islamic banks. At present, all domestic private Islamic banks are listed in capital market of Bangladesh, except Union Bank Limited. Few private commercial banks are yet to be enlisted. Only one State Owned Commercial Banks name as Rupali Bank Limited is listed in capital market of Bangladesh. No Specialized Banks and Foreign Commercial Banks are listed yet now.

<sup>&</sup>lt;sup>1</sup> Department of Business Administration, International Islamic University Chittagong, Bangladesh

<sup>&</sup>lt;sup>2</sup> Department of Quranic Sciences, International Islamic University Chittagong, Bangladesh

Islamic banking is based on Islamic Sharia'h Law which provides all solutions of financial problems as per the Islamic guidelines. According to Islamic law, interest is totally prohibited in Islam because interest has lot of bad effects on society such as it reduces the earning capacity, purchasing power of the interest provider and it also increases poverty, unequal distribution of wealth and credit crisis in an economy. According to Usmani (2005) the main drawback in interest based system is financier has no concern with money when he gives an interest bearing loan to a client. But in Islamic financial contract cash money is not given to client, first of all they purchase the commodity and transfer to client then all profit and loss will be distributed between parties according to agreed terms and conditions (Usmani, 2005). It is concluded by these statements that investment in Islamic financial system is really helpful to economy due to its proper check and balance as well as it is helpful to enhance the businesses of the society.

In Bangladesh Islamic banking started its journey in 1983 with the opening of Islami Bank Bangladesh Limited. Compared to the conventional banks, Islamic banks in Bangladesh have shown relatively better performance in the areas of loan recovery and various other financial measures (Ahmed, Rahman, & Ahmed, 2006; Ahmad & Hassan, 2007). Following such acceptance of Islamic banks in Bangladesh, various private commercial banks and international banks in Bangladesh started offering various financial products/services in accordance with Islamic principles (Hassan, 1999) along with their tradition interest based banking services.

While Islamic banking has gained popularity in Bangladesh, there have hardly been researches that addressed the all Islamic banks taking more comprehensive variables. Most of the studies in the context of Islamic banking in Bangladesh have so far focused on comparative financial performance of banks and legal issues (e.g., Ahmad & Hassan, 2007; Ahmed, Rahman, & Ahmed, 2006; Alam, 2000; Hassan, 1999; Sarkar, 1999) taking a few samples and from narrower perspective. Because, a comprehensive research is required not only for depositors, investors, policy makers and researchers but also for all stakeholders with a view to disseminate the real information. Especially; the knowledge of consumer motivations for choosing Islamic versus conventional banking services is very essential (Dusuki & Abdullah, 2007).

Indeed, In Islam, business is an Ibadah (worship) and is recommended, whereas; riba (interest) is prohibited. From business point of view, Islamic bank is not only a firm but also a moral trustee of the depositors where deposits are trust given to banking firm. It is naturally expected that as a custodian of trust for the depositors' deposits, Islamic bank is likely to be more liquid and become more solvent compared to its counterpart conventional banks (Hassan & Kabir, 1999). According to Islamic ethics, the Islamic bank management is accountable to the depositors in this world and the world hereafter for their failure to keep the trust entrusted upon them. It is, therefore, expected that the liquidity and solvency ratio of the Islamic bank will be higher than conventional banks (Samad & Hassan, 2000). Thus, Evaluation of bank performance is important for all parties: depositors, bank managers and regulators. In a competitive financial market bank performance provides signal to depositor-investors whether to invest or withdraw funds from the bank. Similarly, it flashes direction to bank managers whether to improve its deposit service or investment service or both to improve its finance. Regulator is also interested to know for its regulation purposes (Samad & Kabir, 1998).

Almost all commercial banks in Bangladesh today are under great pressure to meet the interests of their stockholders, employees, depositors, borrowers and customers. Most of the Islamic banks have grown in recent years, more and more of them have been forced to turn to the money and capital markets to raise funds by selling stocks, bonds and other financial instruments and banking products. Besides these, they have been engaging themselves in lots of non-banking activities like brokerage house function and merchant banking. As the numbers of investors in Dhaka Stock Exchange (DSE) are increasing day by day, a huge numbers of investors of capital markets are showing their interest to purchase and sell the share of different Islamic banks. But, there are very few studies which have been conducted on the performance of Islamic banks taking many essential variables so that the stakeholders can get sufficient information for making different types of decisions. Thus, in this paper a thorough investigation is done on the Performance of Islamic banks of Bangladesh in terms of deposit; investment; foreign remittance collection; earnings per share (EPS); dividend declaration; dividend payout ratio; price earnings ratio (P/E) and net asset value (NAV).

#### 2. Rationale of the Study

In any economy, money market and capital is regarded as an economic barometer which are inter related and interdependent. Indeed, without well-functioning money market, capital market also suffers severely (Demirguc-Kunt & Levine, 2001). Therefore, the efficiency of money market in is highly needed to protect the interests of depositors and investors in general and all stakeholders in particular. If money market works as a complete safeguard, it will protect the interest of stakeholders and since banks are the very important members

of money market, the effective roles of banks are highly required. Indeed, on the basis of the performance of money market the vibrant capital market is largely dependent which will ultimately help in expediting the growth of the economy through industrialization (Mamun, Hoque, & Mamun, 2013). Since, Islamic banking system is getting popularity in the world it is the curiosity of the researchers to know the performance of Islamic banks of Bangladesh. The rationality lies in the fact that there is no comprehensive study which is undertaken to know the performance of Islamic banks operating in Bangladesh.

#### 3. Literature Review

A brief review of literature has been conducted to identify factors for analyzing the performance of Islamic banks operating in Bangladesh. Safiullah (2010) said that the performance of interest-free Islamic banks in business development, profitability, liquidity and solvency is superior to that of interest-based conventional banks. Indeed, in today's world, bankers and their competitors are under great pressure to perform well all the time (Roes et al., 2005). But what does it mean by the word perform when it comes to banks and other financial service providers? In this case performance refers to how adequately a bank or other financial firm meets the objectives of stockholders (owners), employees, depositors, and other creditors, and borrowing customers. At the same time, these financial firms must find a way to keep government regulators satisfied so that their operating policies, loans, and investments are sound, protecting the public interest. The success or lack of success of these institutions in meeting the expectations of others is usually revealed by a careful and through analysis of their financial statements. According to Samad & Hassan (2000) the evaluation of bank performance is important for all parties; depositors, bank managers and regulators. In a competitive financial market bank performance provides signal to depositors and investors whether to invest or withdraw funds from the bank. Similarly, it flashes direction to bank managers whether to improve its deposit service or loan service or both to improve its finance. Regulator is also interested to know for its regulation purposes. Generally, better performance of banks mean that the banks are growing from the stand point of investment and deposits along with some other very key indicators like high EPS, lower P/E ratios, dividend payout ratio, Net assets value(NAV), mode(cash/stock) of dividend declaration, stability of share price and performance in foreign remittance collection.

If any bank failed to maintain positive EPS trend, then according to (Samuel et al., 2001), negative returns follow dividend omission. This situation decreases the current market price of the share. Campbell & Shiller (1988) says that long historical averages of real earnings help forecast present values of future real dividends. The total value of a bank's assets less the total value of its liabilities is its net asset value (NAV). For valuation purposes, it is general to divide net assets by the number of shares in issue to give the net assets per share. This is the value of the assets that belong to each share, in much the same way that P/E measures profit per share. NAV is useful for the valuation of shares in sectors where the value of a company comes from the assets it holds rather than the profit stream generated by the business. According to Clayton & MacKinnon (2002) uninformed or noise traders push prices away from NAVs following the initial price moves cause by informed traders.

Indeed, investors consider several factors in investing funds in any particular securities of capital market, of which, the most important factor is the return from the investment in securities that typically depends on the dividend declaration in the stock market (Khan et al., 2011; Mamun et al., 2013). Company declares dividend in the form of cash and/ or stock with in the financial year (quarterly or biannually) to meet the expectations of investors considering the ability and strategy of the company (Mamun et al., 2013). Payout of dividend is important as it informs the investing public certainty about the financial well-being of the company concerned. Furthermore, company's dividend decision on a regular interval that involves with whether to payout earnings to shareholders is important as it helps avoid agency problem (Jensen & Meckling, 1976). On the investors' side, those who are looking to secure current income invest their fund in securities of the companies that are paying high dividend on a regular basis. Companies having long-standing history of dividend payout would be negatively affected by reducing dividend distribution and would positively be affected by increasing the same. Furthermore, companies without a dividend history are generally viewed favorably when they declare new dividends (Jais et al., 2010).

According to Besley & Brigham (2008) regular stock dividend policy decreases the market price. But if the commercial banks frequently offer stock dividend, the negative impact such as decrease in share price, loss of goodwill, dissatisfaction of shareholders, sales of share at discount and increase in internal fund can be arisen in future. According to Rozeff (1982) the investment policy influences dividend policy. The Price to Earnings ratio (P/E ratio) is one of many ratios used by investors to evaluate how expensive or cheap a stock is relative to its historical cost (Hasan & Saimoon, 2011). The P/E looks at the relationship between the stock price and the company's earnings. Basu (1977) said that price-earnings ratios are indicators of the future investment performance of a security. The P/E is the most popular metric of stock analysis. The P/E gives an idea of what

the market is willing to pay for the company's earnings. The higher the P/E ratio, the more the market is willing to pay for the company's earnings. Some investors read a high P/E as an overpriced stock and that may be the case, however it can also indicate the market has high hopes for this stock's future and has bid up the price. Conversely, a low P/E may indicate a "vote of no confidence" by the market or it could mean this is a sleeper that the market has overlooked.

# 4. Objectives of the Study

Following objectives were set for this research paper:

- To evaluate the performance of Islamic banks listed in the capital market of Bangladesh.
- > To make a comparison among different Islamic banks from different variables.
- > To propose some policy recommendations for ensuring good performance of Islamic banks in the capital market of Bangladesh.

#### 5. Methodology

All the listed Islamic banks at DSE & CSE have been selected except ICB Islamic Bank Limited (ICBIBL) for conducting the research. The ICBIB has been dropped from the list of preference due to its association with Z category, which is the clear indicator of its poor operational efficacy (SEC Bangladesh, 1993). Different financial tools and techniques are used in the study. The study also considered some factors like deposit; investment; foreign remittance collection; earnings per share (EPS); dividend declaration; dividend payout ratio; price earnings ratio (P/E) and net asset value (NAV) for analyzing the performance. The study basically depends on the secondary data which were collected from the DSE Publications, library and information division of Dhaka Stock Exchange (DSE), newspapers and other online resources. Data were also collected from the annual reports of the sample banks during the year 2004 to 2013.

Table 1.

Name of the Selected Banks	Acronyms
1. Al-Arafa Islami Bank Limited	AIBL
2. Export Import Bank Bangladesh limited	EIBBL
3. First Security Islami Bank Limited	FSIBL
4. Islami Bank Bangladesh Limited	IBBL
5. Shahjalal Islami Bank Limited	SHIBL
6. Social Islamic Bank Limited	SIBL

#### 5.1 Performance Analysis of Islamic Banks in Bangladesh

For analyzing the performance of Islamic banks in Bangladesh, the study has considered some factors like deposit; investment; foreign remittance collection; earnings per share (EPS); dividend declaration; dividend payout ratio; price earnings ratio (P/E) and net asset value (NAV).

As per SEC rules of Bangladesh (1993) when any company declares dividend at least 10% stock and cash or both annually or interim, the company's share is in A category and declared dividend 5% to below 10% the company's share is in B category and declared no dividend at the year end, the company's share is in Z category. All Islamic Banks are in A-Category Share at DSE, except ICBIB is Z-category.

In terms of paid up capital two banks, namely IBBL and EIBBL are on the top position with authorized capital of Tk. 20,000 million. Among these Islamic banks, IBBL has the highest paid-up capital is Tk. 14,636 million. The important thing is that all listed Islamic banks are the member of Central Depository Bangladesh Limited (CDBL), hence the share of these banks are in electronic or D-mat (De-materialize) format. There is no significant government participation in the ownership of any Islamic bank listed at DSE. Sponsor/Directors ownership is approximately 50% of all Islamic banks except the SIBL. But the public holdings of the share are huge for EIBBL and SHIBL. Institutional participations in the ownership of different Islamic banks are also lower. IBBL has the highest institutional participations among these seven Islamic Banks (Appendix Table 1).

#### 5.2 Performance of Islamic Banks in Terms of Deposit

Deposit is very important for a bank. Indeed, the main source of capital of investment is deposit in a bank. It has been found that the present (2013) deposit all six Islamic banks is TK 111184.2 core of which IBBL has TK

47,314.1 core which is the highest deposit not only among the Islamic banks but also among all the private commercial banks of Bangladesh including traditional and Islamic banks, whereas; the total deposit of all other banks is TK 63870.1 core. It means IBBL lonely has 42.55% deposit and the other five banks all together have 57.45% of deposit (Appendix Table 2). On the contrary, the average growth of deposits of all Islamic banks is 28.02% and AIBL and FSIBL have the highest average growth in deposit with 35.75% and 32.97% respectively (Appendix Table 3).

# 5.3 Performance of Islamic Banks in Terms of Investment

It has been found that the present (2013) investment of all six Islamic banks is TK 96259.7 core of which IBBL has TK 40680.5 core which is the highest investment not only among the Islamic banks but also among all the private commercial banks of Bangladesh including traditional and Islamic banks whereas, the total investment of all other banks is TK 55579.2 core. It means IBBL lonely has 42.26% investment and the other five banks all together have 57.74% of investment (Appendix Table 4). On the contrary, the average growth of investment of all Islamic banks is 27.2183% and AIBL and FSIBL have the highest average growth in investment with 34.92% and 32.16% respectively (Appendix Table 5).

#### 5.4 Performance of Islamic Banks in Terms of Foreign Remittance Collection

It has been found that the present (2013) foreign remittance collection of all six Islamic banks is TK 29872.5 core of which IBBL has TK 28695.6 core which is the highest foreign remittance collection not only among the Islamic banks but also among all the private commercial banks of Bangladesh including traditional and Islamic banks whereas, the total foreign remittance collection of all other banks is TK 1176.9 core. It means IBBL lonely has collected 96.06% of foreign remittance and the other five banks all together have 3.94% of foreign remittance collection (Appendix Table 6). On the contrary, the average growth of foreign remittance collection of all Islamic banks is 58.45%. FSIBL and AIBL have the highest average growth in foreign remittance collection with 123.27% and 64.69% respectively (Appendix Table 7).

#### 5.5 Performance of Islamic Banks in Terms of Earnings per Share (EPS)

Earnings per share are usually considered to be the single most important variable in determining a share's price (Hasan & Saimoon, 2011). It is also a major component used to calculate the price-to earnings valuation ratio. It is also used as a key indicator in measuring the performance of an organization regardless of its types. The table (Appendix Table 8) shows the average earnings per share (EPS) of all Islamic Banks during the year 2004 to 2013 is 3.24%. In the table it is seen that the average EPS of IBBL is the highest having 4.85 which is higher than the average and it is consistent and the average EPS of AIBL is Tk. 3.65 which is also consistent during the year 2004 to 2013 which indicates their continuous better performance. The average EPS of EIBBL is Tk. 4.14, which was inconsistent during the year 2004 to 2013. The EPS of EIBBL is gradually decreasing. This is the basic reason for which the market price of EIBBL has been fallen down. All other Islamic Banks have shown somehow stable EPS. Among the six Islamic Banks, IBBL has shown the highest average EPS Tk. 4.85 during the year 2004 to 2013 as well as IBBL has the highest EPS Tk. 3.45 in the year 2013. That's why the present share price IBBL is comparatively higher than others Islamic Banks.

# 5.6 Performance of Islamic Banks in Terms of Dividend Declaration

It has been found (Appendix Table 9) that among the Islamic banks the dividend declaration of IBBL is consistent. The IBBL declared dividend averagely 25.5% during the year 2004 to 2013 which is higher than that of average 20.08% of all Islamic banks. The IBBL was declared dividend in both stock and cash mode which is considered as the good dividend policy for the both investors and bank. It is the expectation of investors that the bank will give their return in cash. The dividend declaration of AIBL and EIBBL are also consistent. The AIBL declared dividend averagely 23.4% and the EIBBL declared dividend averagely 25.8% during the year 2004 to 2013 which was also higher than the average of all banks. But AIBL and EIBBL declared dividend in stock mode, as a result their EPS & NAV have been decreased gradually over the years. In the previous study it was found that the declaration of dividend in stock mode was profitable for all kinds of investors (Mamun et al., 2013). But we found that the EPS & NAV of those banks decreased who declared dividend only in stock mode. The dividend declaration of SHIBL; FSIBL and SIBL are inconsistent during the period 2004-2013, as a result the share price of these banks were fluctuated. So, in declaring dividend, IBBL has shown more professionalism, as a result the share price of IBBL was consistent.

#### 5.7 Performance of Islamic Banks in Terms of Dividend Payout Ratio

It is seen (Appendix Table 10) that among the six Islamic banks; IBBL has the lowest average dividend payout ratio (0.532) which indicates that IBBL has the highest retained earnings. It is also indicate that IBBL has the

more opportunity to invest their retained earnings in different business sector. As a result, their total profit is gradually increasing over the year and the EPS of IBBL was consistent whereas, no. of shares was increased. On the other hand, SIBL has the highest dividend payout ratio having 0.677 which indicates that SIBL has the lowest retained earnings. It also indicates that SIBL has the less opportunity to invest their retained earnings in different sector. As a result, EPS of SIBL was decreased and inconsistent whereas, no. of shares was increased year by year. Dividend payout ratio of AIBL; EIBBL; SHIBL are also higher.

5.8 Performance of Islamic Banks in Terms of Price Earnings Ratio (P/E)

It is found (Appendix Table 11) that the average price earnings ratio (P/E) of IBBL, AIBL are 12.62 and 11.85 respectively which indicates that the EPS and the share price are more rationale and consistent. The average price earnings ratio (P/E) of EIBBL is 9.86 during the year 2004 to 2013 and the price earnings ratio (P/E) of EIBBL is 6 for the year 2013 which indicates that the EPS and the share price are more rationale but inconsistent. On the other hand the average price earnings ratio (P/E) of SIBL, FSIB and SHIBL are 21.32, 16.82 and 11.61 respectively during the year 2004 to 2013 and the price earnings ratio (P/E) of SIBL, FSIBL and SHIBL are 5.87, 8.03 and 4.52 respectively which indicates that the EPS and the share price was felt down tremendously. That's why most of the investors are loser to invest their money in SIBL, FSIBL, and SHIBL. P/E ratio is one of the important considering factors while making investment decision (Hasan & Saimoon, 2011). Generally, investors choose lower P/E while making investment decisions. The P/E ratios of all Islamic banks are now below 10 which is the lower than the average 14.013. It indicates that the favorable investment opportunity is prevailed in buying the stock of Islamic banks.

5.9 Performance of Islamic Banks in Terms of Net Asset Value (NAV)

In the table (Appendix Table 12) it is seen that the average NAV of IBBL is Tk. 30.47 per share which is consistent and the average NAV of AIBL is Tk. 18.87 per share which is also consistent during the year 2004 to 2013 which indicates their continuous better performance. The average NAV of EIBBL is Tk. 18.75 per share and the average NAV of SIBL is Tk. 16.17 per share during the year 2004 to 2013. But the NAV of EIBBL is gradually decreased. All other Islamic Banks have shown somehow stable NAV. Among the six Islamic banks, IBBL has shown the highest average NAV Tk. 30.47 during the year 2004 to 2013 as well as IBBL has the highest NAV Tk. 29.92 per share in the year 2013. That's why the present share price of IBBL is comparatively higher than others Islamic Banks. The NAV of all Islamic banks are close to the market price of the share. So it simply indicates that the NAV of stock plays roles in determining the stock price.

#### 6. Policy Recommendations and Conclusion

It has been found that from the different dimensions; the performance of IBBL is consistent and very good followed by AIBL. But, the performances of Islamic banks other than IBBL are not satisfactory in case of foreign remittance collection. Indeed, the performance is the outcome of various variables relating to deposit, investment, foreign remittance collection and dividend policy. It is found that the overall performance of all Islamic banks is satisfactory. It simply indicates that the future of Islamic banking system in Bangladesh is very bright. But for exploiting the market opportunity the Islamic banks must develop market driven strategy. Indeed, interest based banking system has created many problems in the society like economic discrimination and economic recession. Only Islamic banking system can create social and economic justice. For doing that, the policy makers should come forward in providing policy support and the bankers should gain the more trust of the depositors and investors through their transparent transactions. Indeed, trust is the foundation of business.

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**Appendix A**Table A1. Integrated Information about all Islamic banks in the year 2013

Acronyms	Listing Year	Market Category	Electronic Share	Authorized capital (BDT mn)	Paid up Capital (BDT mn)	Face Value	Market Lot	No. of Securities
AIBL	1998	A	YES	15,000	9,470	10	250	946,958,501
EIBBL	2004	A	YES	20,000	11,566	10	100	1,156,634,782
FSIBL	2008	A	YES	10,000	4,114	10	100	411,438,720
ICBIBL	1990	Z	YES	15,000	6,647	10	500	664,702,300
IBBL	1985	A	YES	20,000	14,636	10	100	1,463,627,880
SHIBL	2007	A	YES	10,000	6,679	10	50	667,898,301
SIBL	2000	A	YES	10,000	7,031	10	250	703,141,564

Source: Created (based on different websites) & annual reports.

Table A2. Deposits of Islamic banks during 2004-2013 (Tk. in core)

Acronyms	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		
AIBL	923.7	1164.4	1677.5	2300.9	2969.0	3835.6	5388.3	8218.7	11868.3	14098.1		
EIBBL	1907.8	2831.9	3503.2	4154.7	5758.7	7383.5	9494.5	10788.1	14037.0	16573.3		
FSIBL	1126.4	1401.2	1759.2	2350.4	2585.4	4242.3	5,634.4	7814.5	10990.6	13952.1		
IBBL	8784.1	10777.9	13241.9	16632.5	20034.3	24429.2	29,193.5	34185.4	41784.4	47314.1		
SHIBL	1276.4	1532.6	1809.0	2261.8	3428.0	4745.9	6296.5	8335.0	10217.6	9648.1		
SIBL	1346.0	1434.2	1604.7	1870.6	2206.6	2766.4	3983.3	5666.1	8109.1	9598.5		
	Total de	Total deposit										

Source: Created (based on DSE Websites) & annual reports of the sample banks.

Table A3. Growth of deposits of Islamic banks, during 2004-2013

Acronyms	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	SD	
AIBL	26.06%	44.07%	37.16%	29.04%	29.18%	40.48%	52.52%	44.41%	18.79%	35.75%	0.107	
EIBBL	48.44%	23.71%	18.60%	38.61%	28.21%	28.59%	13.62%	30.12%	18.07%	27.55%	0.109	
FSIBL	24.40%	25.55%	33.61%	9.99%	64.08%	32.81%	38.69%	40.64%	26.95%	32.97%	0.148	
IBBL	22.70%	22.86%	25.61%	20.45%	21.94%	19.50%	17.10%	22.23%	13.23%	20.62%	0.037	
SHIBL	20.07%	18.06%	25.03%	51.56%	38.45%	32.67%	32.38%	22.59%	-5.57%	26.13%	0.158	
SIBL	6.55%	11.89%	16.57%	17.96%	25.37%	43.99%	42.25%	43.12%	18.37%	25.12%	0.144	
Average of deposit growth of Islamic Banks												

Source: Created (based on DSE Websites) & annual reports of the sample banks.

Table A4. Investment of Islamic banks during 2004-2013 (Tk. in core)

Acronyms	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
AIBL	874.7	1147.4	1742.3	2290.6	2774.3	3613.4	5358.3	7771.5	10665.1	12571.5
EIBBL	1933.3	2604.6	3264.1	4019.5	5363.8	6861.0	9329.7	9969.9	11822.0	14384.7
FSIBL	964.8	1072.2	1364.6	1861.6	2509.5	3872.6	5212.4	6946.7	9630.4	11460.2
IBBL	7585.9	9364.4	11357.5	14492.1	18005.4	21461.6	26322.5	30584.1	37292.1	40680.5
SHIBL	1195.4	1367.3	1551.5	2061.7	3291.9	4395.8	6144.0	8059.2	9618.5	8570.6
SIBL	1288.7	1509.6	1531.3	1644.0	1995.1	2658.1	3668.0	5390.9	7602.5	8592.2
Total invest	ment									96259.7

Source: Created (based on DSE Websites) & annual reports of the sample banks.

Table A5. Growth of investment of Islamic banks during 2004-2013

Acronyms	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	SD
AIBL	-	31.18%	51.85%	31.47%	21.12%	30.25%	48.29%	45.04%	37.23%	17.88%	34.92%	0.117
EIBBL	-	34.72%	25.33%	23.14%	33.44%	27.91%	35.98%	6.86%	18.58%	21.68%	25.29%	0.092
FSIBL	-	11.13%	27.27%	36.42%	34.80%	54.32%	34.60%	33.27%	38.63%	19.00%	32.16%	0.123
IBBL	-	23.44%	21.28%	27.60%	24.24%	19.20%	22.65%	16.19%	21.93%	9.09%	20.62%	0.054
SHIBL	-	14.38%	13.47%	32.88%	59.67%	33.53%	39.77%	31.17%	19.35%	-10.89%	25.93%	0.198
SIBL	-	17.14%	1.44%	7.36%	21.36%	33.23%	37.99%	46.97%	41.02%	13.02%	24.39%	0.160
Average of i	Average of investment growth 27.											<b>6</b>

Source: Created (based on DSE Websites) & annual reports of the sample banks.

Table A6. Foreign remittance collection of Islamic banks, during 2004-2013 (Tk. in core)

Acronyms	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
AIBL	37.8	45.6	134.7	184.4	267.2	283.2	443.2	687.6	2312.1	704.3
EIBBL	11.3	22.3	34.4	71.0	142.8	245.2	303.6	374.4	577.1	288.9
FSIBL	46.4	62.2	4.9	33.1	55.7	55.9	84.3	101.2	473.2	71.3
IBBL	2366.9	3694.8	5381.9	8414.3	14040.4	19471.6	21462.9	23660.7	30091.5	28695.6
SHIBL	256.2	311.6	356.4	429.5	949.8	1047.8	615.8	534.0	292.7	112.4
SIBL	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF
Total										29872.5

Source: Created (based on DSE Websites) & annual reports of the sample banks. (NF=Not Found)

Table A7. Growth in remittance collection of Islamic banks, during 2004-2013

Acronyms	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	SD	
AIBL	20.63%	195.39%	36.90%	44.90%	5.99%	56.50%	55.14%	236.26%	-69.53%	64.6%	0.944	
EIBBL	97.35%	54.26%	106.40%	101.13%	71.71%	23.82%	23.32%	54.14%	-49.94%	53.5%	0.498	
FSIBL	34.05%	-92.12%	575.51%	68.28%	0.36%	50.81%	20.05%	367.59%	84.93%	123.%	2.104	
IBBL	56.10%	45.66%	56.34%	66.86%	38.68%	10.23%	10.24%	27.18%	-4.64%	34.0%	0.247	
SHIBL	21.62%	14.38%	20.51%	121.14%	10.32%	-41.2%	-13.2%	-45.19%	61.60%	16.6%	0.513	
SIBL	-	-	-	-	-	-	-	-	-	-	-	
Average growth of remittance of Islamic banks of Bangladesh												

Source: Created (based on DSE Websites) & annual reports of the sample banks

Table A8. Earnings per share (EPS) during 2004-2013

	• •		` ′	_								
Acronyms	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	SD
AIBL	2.64	3.88	5.02	3.01	4.83	4.78	4.14	3.38	2.38	2.46	3.65	1.020
EIBBL	6.08	6.32	4.35	4.36	4.16	4.99	5.33	2.19	1.98	1.63	4.14	1.684
FSIBL	n/a	n/a	n/a	n/a	0.74	1.42	2.33	1.71	2.04	1.88	1.69	0.556
IBBL	5.19	4.88	4.86	3.76	5.63	5.51	6.05	4.62	4.49	3.45	4.85	0.812
SHIBL	n/a	n/a	n/a	3.46	3.64	3.91	6.05	2.62	3.13	1.96	3.54	1.289
SIBL	1.43	0.24	0.98	1.76	1.72	1.84	2.14	1.72	2.29	1.78	1.59	0.594
Average EPS	S											3.24%

Source: Created (based on DSE Websites) & annual reports of the sample banks.

Table A9. Dividend (Stock & Cash) during 2004-2013

Acronyms		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	SD
AIBL	Stock	15.5%	26%	35%	20%	30%	30%	26%	21%	17%	13.5%	24.3%	0.069
AIDL	Cash	-	-	-	-	-	-	-	-	-	-	24.370	0.009

Acronyms		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	SD
EIBBL	Stock	40%	30%	25%	25%	26%	35%	35%	14%	10%	11%	25.8%	0.107
EIDDL	Cash	-	-	-	7%	-	-	-	-	-	-	23.670	0.107
FSIBL	Stock						10%	12%	10%	10%	-	10.4%	0.009
FSIDL	Cash	NL	NL	NL	NL		-	-	-	-	10%	10.470	0.009
IBBL	Stock	20%	25%	10%	25%	30%	20%	35%	25%	17%	10%	25.5%	0.055
IDDL	Cash	-	-	15%	-	-	-	-	7%	8%	8%		
SHIBL	Stock	NL	NL	NL	20%	22%	25%	30%	25%	20%	10%	21.71%	0.062
SHIDL	Cash	NL	NL	NL	-	-	-	-	-	-	-	21./170	0.062
CIDI	Stock				17%	10%	11%	14%	-	10%	-	12.79%	0.026
SIBL	Cash				-	-	-	-	10.50%	5%	12%	12%	0.026
Average												20.08339	<b>%</b>

<sup>\*</sup>NL= Not Listed.

Source: Collected from banks' declarations

Table A10. Dividend payout ratio during 2004-2013

Acronyms	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	SD
AIBL	0.587	0.670	0.697	0.664	0.621	0.628	0.628	0.621	0.714	0.549	0.638	0.050
EIBBL	0.658	0.475	0.575	0.734	0.625	0.701	0.657	0.639	0.505	0.675	0.624	0.083
FSIBL	n/a	n/a	n/a	n/a	n/a	0.704	0.515	0.585	0.490	0.532	0.565	0.085
IBBL	0.385	0.512	0.514	0.665	0.533	0.363	0.579	0.693	0.557	0.523	0.532	0.104
SHIBL	n/a	n/a	n/a	0.578	0.604	0.639	0.496	0.954	0.639	0.510	0.652	0.157
SIBL	-	-	-	0.966	0.581	0.598	0.654	0.610	0.655	0.674	0.677	0.132

Table A11. Year-end price earnings (P/E) ratio during 2004-2013

Acronyms	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	SD
AIBL	11.61	5.76	4.88	14.62	11.96	14.61	20.30	13.55	12.36	8.84	11.85	4.529
EIBBL	6.25	8.08	7.74	9.00	9.95	10.13	15.41	14.48	11.56	6	9.86	3.188
FSIBL	n/a	n/a	n/a	n/a	23.74	16.93	25.22	16.97	10.00	8.03	16.82	6.961
IBBL	9.86	9.32	7.59	22.08	14.03	12.87	17.86	14.73	11.15	6.74	12.62	4.761
SHIBL	n/a	n/a	n/a	10.58	10.43	12.24	17.05	15.48	10.92	4.52	11.61	4.045
SIBL	13.62	64.94	18.09	28.79	12.49	16.74	28.09	15.23	9.33	5.87	21.32	16.972
	Averag	14.013										

Source: Created (based on DSE Websites) & annual reports of the sample banks.

Table A12. Net asset value (NAV) during 2004-2013

Acronyms	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean	SD
AIBL	17.86	20.60	23.26	19.67	19.55	19.82	16.42	16.69	17.46	17.38	18.87	2.115
EIBBL	22.30	21.76	18.16	21.37	16.63	19.91	18.22	15.69	15.74	17.72	18.75	2.460
FSIBL	n/a	n/a	n/a	n/a	11.03	12.45	12.81	13.23	15.15	15.65	13.39	1.733
IBBL	30.80	29.72	29.96	31.15	29.59	32.55	31.72	27.59	31.70	29.92	30.47	1.421
SHIBL	n/a	n/a	n/a	16.89	16.05	17.98	19.76	17.78	17.36	16.42	17.46	1.229
SIBL	15.65	15.78	25.90	16.57	14.26	13.20	14.05	14.64	15.88	15.78	16.17	3.571

Source: Created (based on DSE Websites) & annual reports of the sample banks.

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# The Relief of Higher Education Loan through Islamic Waqf Bank

Muhammad Ridhwan Ab. Aziz<sup>1</sup>, Mohd Asyraf Yusof<sup>1</sup>, Fuadah Johari<sup>1</sup>, Asharaf Ramli<sup>1</sup> & Hisham Sabri<sup>1</sup>

<sup>1</sup> Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia (USIM), Nilai, Malaysia

Correspondence: Muhammad Ridhwan Ab. Aziz, Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia, Nilai, Malaysia. Tel: 60-6-798-6410. E-mail: ridhwan.aziz@usim.edu.my

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#### Abstract

Islamic waqf bank is a special designed financial institution in Islam. This bank will benefit the students and also their parents, due to its unique structure that could finance student's education in term of fees and cost of living. Islamic waqf bank use the concept of cash waqf in terms of funding the education. The gifted capital or cash waqf was "transferred" to borrowers for certain period, which was then spent for all sorts of pious and social purposes inclusive for the investment objectives. It is recognized that there is no ample study in the area of cash waqf especially for managing Islamic waqf bank institution. Therefore, the study for managing cash waqf fund through Islamic waqf bank is essential in order for the fund to be use efficiently. The objective of this article is to explore the relief of higher education loan through Islamic waqf bank.

Keywords: waqf, Islamic waqf bank, cash waqf

#### 1. Introduction

# 1.1 Introduction to Waqf

Waqf which (pl. Awqaf) is called Boniyad in Iran and Habs (pl. Ahbas) in North and West Africa. However, by taking its different meanings into consideration, waqf can be applied to non-perishable property whose benefit is extracted without consuming the property itself. Although waqf is not specifically mentioned in the Holy Quran, the concept of wealth distribution is strongly emphasized therein (Chowdhury et al., 2011). In fact, in the Quran, there are many verses which discuss and encourage Muslims to donate and give charity such as in Surah al-Baqarah (2: 261), al-Baqarah (2: 271), Ali Imran (3: 92), Ali Imran (3: 134), al-Lail (92: 18-21) and al-Hadid (57: 18) (Aziz, 2012).

From Shariah point of view, waaf may be defined as holding a mal (an asset) and preventing its consumption for the purpose of repeatedly extracting its usufruct for the benefit of an objective representing righteousness or philanthropy. This definition also covers several new forms of waqf that were not discussed in the classical literatures, such as the waqf of financial rights and waqf of usufruct (Kahf, 1998). The contemporary jurists also justify the validity of the cash waqf, because it is in the interest of the waqif (the donor), its beneficiaries and the society (Tahir, 2011). In addition, wagf assets can also be immoveable or moveable. In cash wagf, al-Wagif (donor) endowed cash instead of real estate. Cash waqf begin in primeval Mesopotamia, Greece and the Roman Empire. In fact, in the eighth century, Imam Zufar had approved cash waaf in the Islamic World for the first time. According to him, cash waqf would be invested through Mudarabah and profits would be spent for charity. Nevertheless, cash waqf did not expand and mature until the 16th century and after that century; it became popular, especially among the Ottomans. Many Muslims did not get chance to participate in waqf endowment because there is a wrong perception among Muslims that there may be waaf endowment through only land not in cash. They believed that land can fulfill the three conditions of waaf such as perpetuity, irrevocability and inalienability. However, land may be subject to demolition, destruction due to the natural calamity and waaf will only last till its value exist (Mohammad, 2008). Through proper cash waaf management, it is easily possible to hold waqf value as well as value enhancement. As a result, those who do not have land can participate in endowment through cash waqf. Nowadays, people have more choices for waqf by including cash into waqf.

Furthermore, cash *waqf* is far more important since it is more productive compared to land, buildings, books, cattle and so on, as it is testified by the existing research studies and have been found profitable in the practices of modern Islamic financial system (Chowdhury et al., 2011).

#### 1.2 Higher Education Funding Issues in Malaysia

The sustainability issue of the government fund to maintain higher education expenditure has been greatly debated in Malaysia especially in the post-period of Asian economic crisis that occurred in the late nineties. Malaysia's economy was greatly affected by the crisis which resulted in twin deficits of annual budget and huge depreciation of the currency that forced the authority to reduce public sector spending including higher education (Foong, 2005; Wilkinson & Yusof, 2005). Prior to the crisis, the provision of higher education totally relied on public fund for the establishment and maintenance of operational cost of public universities as well allocation of financial aid to the students (Ahmat, 1987).

The policy of public fund spending for Malaysian higher education sector can be traced back to the establishment of New Economic Policy (NEP) launched in the 2<sup>nd</sup> Malaysia Plan ranging from 1971-1975. NEP was introduced as a mechanism to restructure socio-economic condition of multi-ethnic country badly affected by the infamous racial riot occurred in 1969. The paramount task of restructuring the socio-economic condition of the people through NEP required the government to transform the public sector, including the higher-education sector. Under NEP, ethnic quota admission policy is implemented in public universities whereby the enrolment of students into public universities is based on ethnicity the majority of who are Malays (Sharum, 1980; Morsidi, 2009; Kamogawa, 2003). The enactment of The Universities and University Colleges Act (UUCA) 1971 on the other hand empowers the Ministry of Education as the sole provider of higher learning institutions in the country (Chang Da, 2007). In this regard, the Malaysian government has a vital role to ensure the unique characteristic of developing higher education for achieving balanced economic under NEP.

The government has subsidized a total of ninety percent of public universities expenditure (MOHE, 2007) that enable these institutions to charge low fee admission for the students. The method of channeling the fund is through negotiation between the universities and the Ministry of Education; once agreed the fund will be transferred to public universities (Ahmad, 2012; Albrect & Ziderman, 1992). Scholarship scheme on the other hand, have been given to students studying locally and abroad subject to academic excellence and strong co-curriculum activities (Mehmet & Hoong, 1985). These two methods of funding higher education, namely; macro and micro, have contributed to the expansion of public universities and subsequently produced knowledgeable human capitals for the development of the country.

However, the economic crisis that occurred in the nineties is among the main factors that contributed to higher education funding reform (Foong, 2008; Tham, 2010). The crisis affected public spending on the government sectors including higher education sector which resulted in the reduction of expenditure allocated to the public universities and scholarships to the students. Public universities were unable to accommodate the high demand of school leavers pursuing tertiary education certificates in the global economic transition into k-economy (Kamogawa, 2003; Ho, 2008; Molly, 2005). The depreciation of the national currency coupled with the imposition of high admission fee for international student's enrolment into universities in US, UK and Australia had distracted the government and parents to send students to study abroad. It was reported that before the crisis around fifty thousand Malaysian students studying abroad especially in USA and UK were either sponsored financially by the Government or self-sponsored.

The method of funding higher learning institutions and students has changed dramatically in the late nineties through the liberalization of higher education and the establishment of educational loan scheme managed by National Higher Education Fund popularly known as PTPTN. The promulgation of PHEA in 1996 has changed tertiary education system in Malaysia into two main category; public and private. This vital policy change has dramatically increased the supply of higher education places and eased the burden of the government expenditure in developing the sector. The formation of PTPTN in 1997 on the other hand, offers educational loans for students studying at higher learning institutions with the condition that the program must be accredited by Malaysia Quality Assurance (MQA). These two new policies have contributed to the growth of students which recorded the highest number of one million in 2012 (MOHE, 2013).

Nevertheless, the sustainability of educational loan managed by PTPTN has become a debatable issue partly on economic factor and another on political factor. The economic factor relates to an increase of students enrolments couple with a huge number of defaulters as of 2007 only fifty percent of the borrowers repaid the loan ((Shafinar & Serguieva, 2009; Shafinar et al., 2011; S. Benjamin et al., 2011: Elistina et al., 2006). According to Morshidi (2010), the implementation of higher education policy is also subjected to political debate especially in the post period of 12<sup>th</sup> General Election in 2008. Currently, during the pre-election of 13<sup>th</sup> General Election among the debatable issues were the abolishment of PTPTN and the establishment of free education at the level of tertiary education (Harian, 2013; Utusan Malaysia, 2013).

The launching of National Higher Education Plan Beyond 2020 (NHEP) in 2007 is another strategic plan to develop higher education sector in Malaysia (Ahmad, 2012; Morsidi, 2010). NHEP outlines two main strategic plans; to transform higher education sector as a hub of higher education and to decrease public spending allocated to public universities. The transformation of higher education sector into a hub of higher education in the region is expected to generate revenue for the country through international students' admission charges (Mok, 2008, 2010, 2011; Morshidi, 2010; Tham, 2010). As of 2010 the number of international students' enrolment into Malaysian higher learning institutions stood at eighty thousands and the figure is expected to increase into two hundred thousand by 2020 (MOHE, 2012). Under NHEP, public fund expenditure allocated to public universities which currently covers ninety percent of public universities' expenditure will also be reduced to seventy percent in 2020. Public universities are given greater autonomy to cover another thirty percent of the expenditure through various income generating activities such as venturing into business activities, consultation and setting waqf fund for higher education purpose (Ahmad, 2012; Morsidi 2011).

Based on the previous discussions, the challenges in public funding of higher education in Malaysia can be divided into two main factors; internal and external. An influx of enrolments for tertiary education which subsequently increase the amount of educational loan, large number of loan defaulters, large number of public universities currently stand at twenty institutions nationwide, and, the high cost incurred for purchasing materials and equipment for teaching and learning as well as conducting research activities are identified as the main internal factors. Meanwhile, global economic uncertainty is considered to be the main factor that undermines the public fund directed into higher learning sector. Among the funding alternatives suggested for public universities to cover their expenses are venturing into business activities, consultation and the creation of *waqf* fund.

#### 2. Literature Review

The study of cash waqf was done by several researchers in recently time. Murat Çizakça (1998) explains that historical evidence indicates that the real exiting potential lies in the cash waqf. The waqf system has provided throughout Islamic history all the essential services at no cost to the state and a successful modernization of the system implies a significant cut in government expenditure and all the associated benefits including downsizing the state sector and a reduction or elimination of riba. Cengiz Toraman et al. (n. d.), conclude that in a society where health, education and welfare were entirely financed by gifts and endowments, the cash waqf carried serious implications for the very survival of the Ottoman Empire.

Islahi (1992) stated that the internationalization of the voluntary institution of *waqf* is needed nowadays, by setting up a non-government Muslim foundation which should provide public goods on large scale and attempt to combat illiteracy, sickness and lack of technical know-how. Monzer Kahf (1998) explains the importance of *waqf* for socioeconomic development, which is consists of creating and developing a third sector distinct from the profit-motivated private sector and the authority-based public sector, and changing this third sector with the responsibility of performing a group of tasks whose nature will make them better achieved. This third sector assigned in education, health, social and environmental welfare. Furthermore, it can provide defense services and public utilities in many instances.

Chowdhury et al. (2011) explain that cash waqf would also help to reform the present institutional setup and their networking throughout the country with a view of increasing their performances. According to Muhammad Ridhwan Ab. Aziz (2012), waqf in education is not a new development in Islam. Looking at the history, it can be observed that since the beginning of Islam, in the early seventh century, many educational activities were financed by waqf and voluntary contributions. It is a historical fact that Muslim society depended considerably on waqf for the funding of education at all levels. For instance, it is reported that, under the Islamic rule, the island of Sicily had 300 elementary schools. All of them are built by waqf and all of them are provided with waqf revenues for payment of teachers and school supplies.

In fact, the provision of *waqf* for education is probably responsible for the usually common independent mentality noted in scholars that kept them away from being influenced and manipulated by certain quarters. This has contributed in enhancing the integrity of the scholars and academia as a whole and also contributed to reduce the socio-economic differences by offering education to those who can take it in merit basis, rather than on ability to pay educational services. Therefore, the economically poor people in the society will be assisted to reach the socioeconomic pathway faster. In order to advance in the educational field and revive the glory of the Muslim society, the International Islamic University Malaysia (IIUM) for instance, has established the IIUM Endowment Fund (IEF) since 1999 (Aziz, 2012).

Wafa (2010) explains that the impact of developing waqf for education in Malaysia not only promoting the significant rule of waqf towards the country, but also will (1) promote the third sector of Islamic economic, (2)

establish economic activities through several projects, and business, (3) complement the government aid, benevolent and educational programs, and (4) promote the oneness of society.

In addition, Muhammad Ridhwan et al. (2013) explain about the *waqf* bank models that can be apply for Islamic *waqf* bank and also conclude that there is possible structure for *waqf* model and instrument that can be implemented in the future for the financing in education.

Other than that, Mohd Asyraf et al. (2013) conclude that there is strong willingness to contribute for *waqf* bank from any level of income despite the low income level as well the high income level. The only reasons that they did not want to contribute for Islamic *waqf* bank is lack of knowledge about *waqf* and lack of trust for the people who represent as an agent for Islamic *waqf* bank to collect *waqf* donation. Thus the study about *waqf* collection instrument has to be made in order to solve the problem. Also institute of higher learning have to provide reading material regarding *waqf* for public to understand the concept of *waqf*.

Moreover, Muhammad Ridhwan et al. (2013) stated that students will be more motivated if they get free education from Islamic *waqf* bank thus it will ease the burden of their parent. Islamic *waqf* bank is an alternative for education loan and a replacement for PTPTN. Also, there is high demand on the establishment of Islamic *waqf* bank among Muslim public and student.

#### 3. Method

The research methodology used by the researchers is quantitative method. The method used throughout the research is through the questionnaires since the use of questionnaires allow us to get information in the most accurate manner. The questionnaires are randomly distributed among Muslim students in selected university in Selangor and Negeri Sembilan. Each questionnaire is distributed directly to each respondents amounting to 250 students. Random sampling is the purest manifestation of probability sampling. Every part of population has an equivalent chance of being chosen. At the point when there are huge populaces, it is difficult to distinguish each part of the populace, so the pool of accessible subjects gets to be predisposition.

The researcher would randomly choose assigned respondents from various related parties. After a thorough survey, data from respondents' answers are analyzed statistically through the use of SPSS version 20. This study will analyze the frequency of each variable in the survey questions, since each respondent has their own evaluation on the issue, which is useful in this analysis. Results of the analysis will determine the level of assessment of each respondent on various aspects of this study. The reliability of the scale was tested using the Cronbach Alpha.

Table 1. The relief of higher education loan through Islamic Waqf bank

No	Item Cronbach Alpha = 0.670
1	Source of Fund
2	Exempted From Loan Repayment
3	Islamic Waqf Bank is an Alternative for Education Loan

#### 4. Discussion

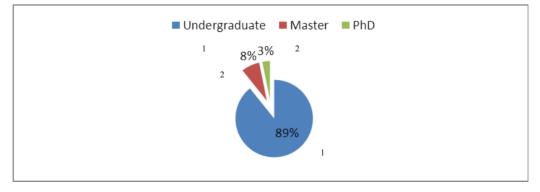


Figure 1. Students level of education

The above pie chart shows the demography of the study. Three levels of education were taken into sample for the findings within the research. Three of them were undergraduates, Masters and PhD students. There are about three percent of PhD students, eight percent of Masters and eighty nine percent of undergraduates who were involved. These students were sampled from four different Universities in Selangor and Negeri Sembilan for this particular study.

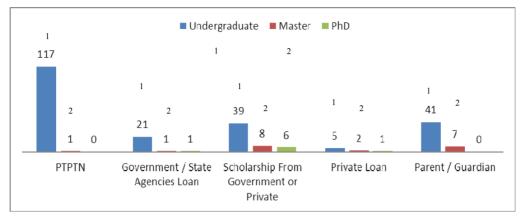


Figure 2. Source of fund

Figure 2 shows the source of funds for each level of study. There were 117 undergraduate students, 1 master student and none PhD student taking PTPTN as their source of funds. Next, there were 21 undergraduate, 1 master and 1 PhD student taking government or state agencies loan. After that, there were 39 undergraduate, 8 masters and 6 PhD students taking scholarship from government or private institution. Moreover, there were 5 undergraduate, 2 master and 1 PhD students taking private loan as their source of funds for education. And lastly, there were 41 undergraduate, 7 master and none of PhD students who sponsored by their parents or guardians.

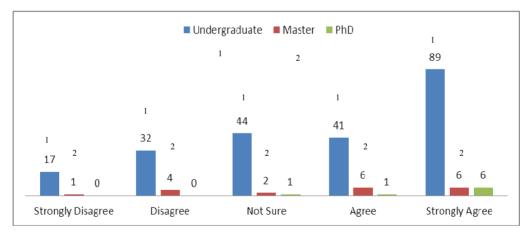


Figure 3. Exempted from loan repayment

Figure 3 shows the student's desire to waive for loan repayment. There were 17 undergraduates, 1 master and none of PhD students who strongly disagreed with the statement. There were 32 undergraduates, 4 masters and none of PhD disagreed with the same statement. Next, there were 44 undergraduates, 2 masters and 1 PhD students not sure with this statement. After that, there were 41 undergraduates, 6 masters and 1 PhD students were agreed with this statement. Lastly, there were 89 undergraduates, 6 masters and 6 PhD strongly agreed with loan repayment exemption. In general, most of the respondents agreed that free education is the most possible method for furthering their studies.

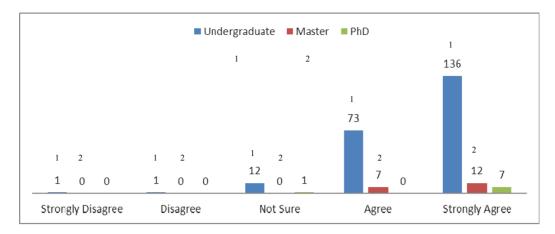


Figure 4. Islamic *Waqf* bank is an alternative for education loan

According to figure 4, the result shows 1 undergraduate student strongly disagreed, 1 undergraduate student disagreed, 12 undergraduate students were not sure, whereas 73 undergraduate students agreed and 136 undergraduate student that strongly agreed with the statement above. There were, no master student strongly disagreed, none of master student disagreed, none master students were not sure, while 7 master students agreed and 12 master students that strongly agreed with the statement above. No PhD students strongly disagreed, none of PhD students disagreed, 1 PhD students were not sure, none of PhD students agreed and 7 of them strongly agreed with the same statement. Therefore, most of the students agreed that there is a need for the establishment of Islamic *waaf* bank as an alternative for new financing mechanism for education.

#### 5. Conclusion and Suggestion

To conclude, the establishment of Islamic waqf bank is timely as showed from the survey. The students are inclined to have Islamic waqf bank for their educations' financing. Islamic waqf bank as an alternative to loan is apparently the best solution for them. They will no longer have to worry about paying back the loan because of the huge commitments in the future. The majority of the undergraduate students took PTPTN as their source of education fund, while most Master and PhD students took scholarship from government or private institutions. Thus, the process of establishing Islamic waqf bank requires ample study in order to be a new alternative for educational financing and indeed a relief for most of the students.

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# Speaking of Socio-Economic and Political Processes in the DPRK under Kim Jong-Un and Their Influence on Russian-North Korean Communication

Ekaterina Veka<sup>1</sup> & Vladimir Pecheritsa<sup>1</sup>

Correspondence: Ekaterina Veka, Far Eastern Federal University, Vladivostok, Russian Federation. Tel: 79-1-4321-5632. E-mail: ekaterinaveka@mail.ru

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#### Abstract

The article analyzes North Korea domestic policy processes, such as socio-economic and political ones, under KIM Jong-un. The article shows that there are no signs of regime transformation which many experts prefer to declare. The survey proves that all processes initiated by KIM Jong-un within the country are neither more nor less than continuity with his predecessors' policy. At the same time KIM Jong-un protects his hard line in foreign policy, his course appears to be even more severe than his father's one at times. He is ready to show his will to the USA and even to Beijing. But relations between the DPRK and the Russian Federation are modifying. The last two years are characterized with appearance of the new touch to Russian-north Korean relations-they turn to economics keeping the political relations format. Two countries are seems to have even similar foreign policy concept in the face of common enemy.

Keywords: KIM Jong-un, domestic policy, North Korea, Russia

#### 1. Introduction

It's been more than 2 years since KIM Jong-un came to power. All this time, despite experts' evaluations, the changes, showing no signs of weakening or liberalization of the political regime, do not stop. The young leader reinforces his authority, demonstrating that he is the one to determine country's course. KIM Jong-un stays Kim, his father's son, his grandfather's grandson; he maintains their policy and is guided by their principles. He is still supported by the elite KIM Jong-il created, carefully putting his own people in the administration circles.

#### 2. Discussion of Topic

After coming to power KIM Jong-un aspires for economical reformations, the basis of which was founded by KIM Jong-il. For example the experiments are conducted in agrarian sphere in order to overcome food crisis. In April 2012 KIM Jong-un said: "Not a single North Korean citizen will have to tighten his belt anymore"...

For ideological basis of food program implementation the so called "instructions 6.28" were used, in which it is spoken about significant reduction of the size of work cells-up to 6 persons, and that makes legal the work of separate peasant family. And besides, farmers now are hugely motivated to work hard-they are allowed to leave about 1/3 of the crop yield for themselves.

The measures are taken in order to provide financial support for economical and agricultural sectors. According to South Korean Ministry of Unification, North Korean 2014 Budget is estimated at around \$7.1 million. According to North Korean Rodong Sinmun (Sinmun, 2014) the government had assigned 45.2% of budget resources for economic development in 2013.

The South Korean Central Bank's data shows economic growth in North Korea in 2012 of 1,3% which is 0,5% more than in 2011 (The Bank of Korea, 2013). 2013 GDP of the DPRK was at 1.1% (The Bank of Korea, 2014). That data is not official, but even the estimates are rather impressive.

In his New Year's speech KIM Jong-un appeals to the North Korean people with an unconventional statement: "With that very energy, that very enthusiasm that we entered the outer space with, we are to open up the new era in which the DPRK will be the mighty state with prosperous economy".

<sup>&</sup>lt;sup>1</sup> Far Eastern Federal University, Vladivostok, Russian Federation

The DPRK leader also pointed out the need of mechanization of agriculture, intensive use of agricultural chemicals and modern effective irrigation. These very directions were defined by KIM Il-sung in his work entitled "Theses on socialistic agrarian issue in our country".

At the same time during more than 2 years there're still staff rotations in the party, military and government, which some experts consider to be the "trimming" of unfavorable people and preparation for the regime transformation. Gradually introducing his men to the elite circles and shifting inner political weight from military staff to the ruling Party representatives, 30-year old leader demonstrates who runs this show. However he does not forget his father's testaments and relies on people, taught and raised by his father KIM Jong-il.

Noticeable difference from his predecessors is KIM Jong-un's behavior or so called format of representation leader's image to the people. The DPRK's leader tries to show him as being more open, more accessible for a regular citizen. He has already, unlike his father, given a number of public speeches. He'd also become the first North Korean ruler in 19 years to congratulate his compatriots with the New Year off the TV screen.

So, in the interview after the visit to DPRK on KIM Jong-un's invitation KIM Jong-il's former chef Kenji FUJIMOTO (The New York Times, 2012) notes that current head of State "appears a magnanimous leader to his people, as well as the chef", "the people have become lively and bright, and not afraid to show more cheerful faces".

"Mr. KIM seemed much more relaxed and cheerful than his aloof father ever was... The comrade general listened to everything I said and nodded even when I urged him to open up the republic to the world. KIM Jong-il never would have sat still and listened to views like that",-Kenji FUJIMOTO underlined.

Even his wife RI Sol-ju contributes to the maintenance of North Korean leader's new "democratic" style. For example, Kenji FUJIMOTO was surprised when young woman strode in the room next to KIM Jong-un. "She took a prominent role, because Mr. Kim's father had rarely taken any of his three known wives to such functions".

RI Sol-ju feels free when takes "the Shining Sun" KIM Jong-un's arm, everywhere accompanies him, each time appears in new stylish dresses, even in famous designers' ones. New leader' predecessors didn't take their wives to official meetings, even the image of the first ladies remained a mystery. Some experts suggest that the DPRK leader made revolution when he showed his wife to the world.

At the same time new leadership style of KIM Jong-un attains popularity among North Koreans (The Nautilus Institute for security and sustainability, 2012).

"He was first regarded as "young and inexperienced", but now as "young but able". Kim Jong-un's imitation of his grandfather's style also appears to have given people hope for a better future, reminding them of «those old good days» of the KIM Il-sung era versus the KIM Jong-il's. To deal with popular demands and legitimate his rule, he will have to be more accommodating and adaptive to new changes and opportunities than his father was".

In the recent times there're seen some signs of changes in social sphere in North Korea, which in conjunction with changes in other areas look like the regime transformation. These are the emergence of popular entertainments like waterpark, amusement parks, dolphinarium, riding club, luxury ski resort. World mass media are actively reporting how leader of immovably closed for the western culture country was congratulated by Disney cartoon characters and visited by famous American basketballer. Western press publish information about renovation Pyongyang's residential areas, new hospitals, gyms (Ryall, 2013), Google Maps detailing the DPRK cities maps (Seo, 2013), foreign tourists allowed to carry their cellphones. Witnesses say that there appeared more cars including foreign ones, a taxi, tents with drinks and ice cream. The great popularity in the country was received by the only pop group created on the personal instruction of KIM Jong-un. The female collective "Moranbon" for the first time appeared in short skirts and began to dance on a scene.

At the same time the new "democratic" behavior of the North Korean leader, his western interests and modern social structure can hardly be the signs of the country's facade breaking. The regime easing is unlikely to happen soon, no matter how the western media want it and announce it.

Some media, comparing KIM Jong-un with his predecessors, recall that KIM Jong-il was also attracted to the various western entertainments. He was an inveterate cinephile and had a huge movie collection, including digital media, enjoyed computer games, was "hanging out" in the Internet, preferred French cognac and snails. And even after that one could hardly call him a fan of the West, leading his country to the new life.

Maintaining gradual changes in the DPRK, KIM Jong-un is determined to protect his hard line in foreign policy.

The North Korean leader had manifested him enough in more than 2 years. Pyongyang stirred up the world with its missile and nuclear manipulations, announcement of the "Holy War" with South Korea. His course appears to be even more severe than his father's one at times. KIM Jong-un unlike KIM Jong-il is ready to show his will even to Beijing.

Under KIM Jong-un's governance the DPRK becomes not just a small, unapproachable and discomforting country that needs to be sanctioned disarmed and broke down. It begins to be treated seriously. North Korea becomes a hard nut to crack for the Great Western Democratizer. "Pyongyang carefully studies American foreign policy, considering its past actions against Yugoslavia, Iraq, Afghanistan and Libya" (Klingner, 2013).

At this time relations between the DPRK and Russia are modifying. Both states have experienced many years of cooperation, share the border and, excluding the 90s period, good dynamics of relations and understanding in politics. For many years Russia and North Korea supported each other in majority of issues in the UN Council. Moscow does not appeal to Pyongyang's nuclear-demonstrative approach to international politics, but it won't allow the West to bend North Korean regime to western will. It happened that Moscow joined the sanctions against North Korea but never had conversation on closing and limiting Russian-North Korean communications.

In 2012 when KIM Jong-un just started to get used to new role, Vladimir Putin promised to "continue active dialogue with the DPRK administration, develop neighborly relations, guiding Pyongyang towards the resolution of the nuclear problem at the same time (Putin, 2012).

However economic relations of two countries can hardly be called successful. The last two years are characterized with appearance of the new touch to Russian-north Korean relations-they turn to economics keeping the political relations format.

One of the signs of Russian-North Korean relations strengthening was the resolution of the debt problem. Russian government wrote off 90% of the DPRK debt. \$9.87 million to be precise. 10% that's left North Korea will be paying for the next 20 years. According to bilateral agreement all the payments send for the North Korean debt will be invested back into the DPRK's economy (Orlov, 2014).

Besides wide prospects for bilateral economic cooperation had opened up thanks to the recent decision of Intergovernmental Commission on trade-economic and scientific-technical cooperation between the Russian Federation and the DPRK, that was held at Vladivostok, that set the accounting mechanism using Russian rubles starting in June this year (Ministry for Development of Russian Far East, 2014).

According to DPRK Foreign Trade Minister RI Ryong Nam, these measures allow an increase in bilateral trade. It is suggested that Russia and North Korea will raise it to \$1 billion by 2020.

Pyongyang also provided new prospects for Russian business by facilitating the visa regime for Russian investors and employees of Russian companies that work in North Korea. As Aleksandr Galushka, the head of the Ministry for Development of the Russian Far East, had stated, Russian investors will get unique conditions for realization of their projects in the DPRK-the commission is ready to escort them and individually lead to a logical conclusion and practical result. Interesting that such conditions are provided for Russians only, even Chinese do not get such an approach.

All in all, recent visits of Galushka, delegation of far eastern governors headed by residential Envoy to the Far Eastern Federal District Yury Trutnev (KCNA of DPRK, 2014) and Intergovernmental Commission are all serious steps in reinforcement of friendly and economical communications of Russia and North Korea. The Far East as a border zone between the two countries may become a platform for further development of their relations

In his message to the Federal Assembly of December 12 2013 the Russian president Vladimir Putin (kremlin.ru, 2013) announced an upturn of the Russian Far East to be the nation's priority for the whole XXI century, remarking that "tasks to solve are unprecedented in their scale", so the steps taken by the Russian authority "has to be nonstandard".

Why then one of the steps could not become an adjustment of closer relations with neighboring North Korea?

"I am sure that the Russian Pacific pivot, the dynamic development of all our eastern territories will not just open the new possibilities in economy for us but also will give us additional tools for conduction of foreign policy"-the President kind of confirms these thoughts.

"I want to point out again: Russia is ready for the teamwork with all the partners to provide common, equal and undivided security"...

Even in the 90s notably, the period of certain stagnation of bilateral relations associated with the breakup of

USSR, the regional connections were kept intact which was welcomed both on the level of the Russian federal center and Pyongyang authority.

That way for example Russian Primorsky Krai and the DPRK North Hamgyong Province have state land border of 17 kilometers. The regions are connected through a railway bridge called "Friendship". Here is the only pass gate through Russian-North Korean border.

As the main directions for cooperation wood processing, house building, agriculture, mining, medicine, trade, communication, mariculture and light industry are emphasized. Primorye-North Korean trade is characterized with positive dynamics-in 2013 it has been increased up to 70% in comparison with 2012 and estimated at \$23.4 million. Export was increased on 78% to \$21.5 million, import-on 10% to \$1.9 million (The Primorsky Krai Administration, 2014). An increase in trade was made possible largely due to an increase in oil and oil products exports to the DPRK. An import from the DPRK to Primorye consists mainly of machines, equipment and its parts.

Currently there's around 15-20 North Korean foreign trade agencies, companies, affiliates of economic ministries and departments in Primorsky Krai. Companies in Primorye are motivated to develop relations with the DPRK. Experts are discussing the offers of Rason trade zone authorities that were announced during November 2013 visit to Vladivostok, including the issues of tourism and transport logistics.

Also the Korean counterpart in august 2013 raised the issues of practically stopped since 2008 agriculture cooperation and the opening of specialized representation of it in Primorsky Krai. These days' North Koreans run an experienced agrarian manufacturing in Dalnerechensk municipal district.

Traditionally the main form of cooperation between Primorye and the DPRK is the usage of Korean work force in house building and agriculture due to the high work capacity and law abidance of the DPRK citizens.

Interstate agreements and projects are at high importance for Primorsky Krai and DPRK relationship. These are mainly trilateral projects offered by Russia on laying the gas pipe and high voltage lines through the DPRK's territory and connection of railways of Russia, the DPRK and Republic of Korea.

Realization of these projects providing developed infrastructure of a state border will have a positive effect on socio-economic situation in the border areas of Primorye and North Korea.

At the moment Hasan-Rajin railway stretch reconstruction project has been realized, being the part of Trans-Korean and Transsib railways connection project (The Primorsky Krai Administration, 2013).

The pier №3 in Rajin port was reconstructed to provide transit of Russian Siberian coal to eastern China ports at volume of 4 million tons.

Development of vehicle communication between Primorye and the DPRK may become a real step towards Korean business. The offer announced by Korean counterpart during the June Intergovernmental Commission meeting suggests an increase in cargo transit between two regions. However the need in additional railway bridge between Hasan and Tumangan arises (The Primorsky Krai Administration, 2014).

Along with economic cooperation the friendly relation between Russia and North Korea are reinforced with a "soft power"-cultural and sports relations development.

That way since 2004 supported by general consulate of the DPRK there're exhibitions of the DRPK's arts and crafts held in all the municipal areas of Primorsky Krai, 6-12 times per year (PrimaMedia.ru, 2014).

The DPRK's filmmakers take part in international Pacific Meridian festival, a "visiting card" of Vladivostok and Primorsky Krai (RIA Novosti, 2012).

Primorsky Krai regularly holds international taekwondo tournaments with the DPRK athletes participating. In March 2014 another Plan on sports exchanges for the current year between two sides was signed.

In 2012-2013 on the Far Eastern Federal University basis 27 North Koreans were studying. 11 students, 1 graduate student, 15 trainees. In 2013 25 the DPRK citizens entered FEFU.

Cooperation in a cleric sphere has also been set. Since 2006 the clergy of Vladivostok diocese regularly visits the DPRK invited by Orthodox Committee to participate in Pyongyang Holy Trinity Church festivities and celebrations. This church was built by a personal order of KIM Jong-il. According to the DPRK's ex-leader's plan it was a memorial to Russian-Korean friendship.

Speaking of Russian-North Korean relations development in a context of Primorye and the DPRK cooperation one should consider 30 thousand Russian Koreans living on Primorsky Krai territory. They are likely to be interested in deeper relations between Russian and both states of the Korean peninsula.

Russia and North Korea notably in the light of recent events on the international arena have similar foreign policy concept. Warming of relations between two countries has increased after escalation of tension between Moscow and the West. Common enemy makes you better friends, as everybody knows.

In his message to the Federal Assembly made after Crimea joined Russia, the president Vladimir Putin made it clear that Russian state is able and ready to withstand western permissiveness (kremlin.ru, 2014). Talking about Crimea situation the state leader implied Russian-American relation for the past 2 decades.

"Our western partners lead by the USA prefer ... to be guided not by international right but the right of the powerful one. They had believed in them being chosen and exclusive, believed that they are allowed to decide the fate of the world... They act as they please-using force here and there against sovereign states...",-the President announced.

These very actions of the Russian leader were met with approval in North Korea. In his message the DPRK ambassador in Moscow KIM Yong-jae remarked that Ukrainian events are the evidence of western countries ignoring the international law principles (Interfax, 2014).

"The last alarming events in Ukraine provoked by the USA and Western countries according to their prearranged conspiracy scenarios, persuasively show who is the reason for all the planet's troubles, who seeks to overthrow sovereign state and cruelly denies people's right for self-determination",-ambassador said.

The diplomat also remarked that North Korea is happy with Russian intent "to stand for national interests and sovereignty and building strong state".

Another words, in the eyes of the North Koreans Russian authority stands out for proper account of legitimate security interests and economic development of all counties. And in particular it does not put the blame on the DPRK for tensions on the Korean peninsula but condemns the West.

For North Korea such announcements from the President Putin are the signs of Russia being comprehensive and maybe even a little close to Juche ideology, calling for people of each country to fight not only against aggression and enslavement but also for consistent protection of their independence.

Interesting fact in 2008 then the Russian President Dmitry Medvedev addressed the Federal Assembly with these words-"the basis for our policy has to be an ideology with a person in its center" (kremlin.ru, 2008). And that's practically word to word citation of the article 3 of Socialistic Constitution of the DPRK-"the DPRK is guided in its actions by the ideas of Juche-world view with a person put in the center..." (VKPB, 2014).

That way the USA's ideological confrontation is another key factor in quickening of Russia and the DPRK rapprochement.

Besides now Moscow is offered a great chance to move Beijing and go forward in relations with the DPRK not only in politics but in economic sphere as well. In its turn Pyongyang is suited to step a little aside from "elder brother's" overwhelming custody.

JANG Sung-taek's execution that occupied the post of the DPRK vice-chairman of the National Defence Commission and was the uncle of North Korean leader, made Beijing to rather cool down to his "little brother". Being one of the most influential political figures JANG Sung-taek was Chinese henchman and had been illegally selling it the DPRK natural resources for pennies.

Moreover China authorities were abruptly dissatisfied with Pyongyang's manipulations in the end of 2012-beginning of 2013, related to long range missile test and the 3<sup>rd</sup> nuclear test.

#### 3. Conclusion

In spite of the internal changes North Korea remains to be closed country relying on its own forces and ready to counter the West permissiveness. At the same time the country is ready to strengthen its relations with Russia and, first of all, the economic ones. One of the most important steps towards the DPRK and Russia rapprochement may become a visit of KIM Jong-un. It will be symbolic and indicative if Russia would become the first country for him to go to for the first time of his 2 year rule.

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## The Moderating Role of Business Growth on the Relationship between Business Development Services Provided by Islamic Microfinance Institutions and Customer Satisfaction: A Study on the SMEs in Yemen

Fahmi Shaaban Fararah<sup>1</sup> & Abdullah Kaid Al-Swidi<sup>2</sup>

Correspondence: Fahmi Shaaban Fararah, Seiyun Community College, Yemen and Kulliyyah Muamalat, Insaniah University College, Alor Setar, Kedah DarulAman, Malaysia. E-mail: fahmi2002fa@yahoo.com

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#### **Abstract**

This paper aims to investigate the moderating role of business growth on the relationship between Business Development Services (BDS) and SMEs owners' satisfaction on the Islamic Microfinance System in Yemen. Specifically, this paper showed the effectiveness of the business development services provided by Islamic microfinance system to satisfy the SMEs customers and how this relationship is contingent on the business growth opportunities. In examining the hypothesized model, the quantitative methodology was employed. Out of 532 questionnaires distributed, 346 ones were returned out of which only 320 were usable for the data analysis stage. The results confirmed the direct effect of BDS on SMEs owners' satisfaction and the moderating role of business growth on the said relationship.

**Keywords:** SMEs, Islamic microfinance system, business development services, customer satisfaction, partial least squares, Yemen

#### 1. Introduction

One of the main objectives of the Islamic Banking and financial system is to help the poor people to improve their living standards and fairly distribute the wealth. Through the actual economic activities, Islamic financial products can help the poor people of different levels to enhance their productivity and subsequently better their life standards. Therefore, Muslims, as a part of their duty, are required to effectively contribute to reduce the poverty amongst the poor people and that is praised by Allah as the essential part of stewards (Ebadah). As the prophet Mohammad said "He who sleeps on a full stomach whilst his neighbor goes hungry is not one of us (Note 1)" (Shahinpoor, 2009). Over the last few decades, the Islamic financial industry has been growing globally not only in the Islamic world but also in the Western world such as in the United States of America, United Kingdom, France ... etc. Islamic Banking and financial system is competing aggressively with conventional financial system which relies on strong roots of popularity among people. To carry on the strong position in the market, Islamic finance providers have to improve service quality to satisfy their customer. Islamic financing providers are trying to offer high quality products and services to retain the loyalty of their customers and to attract more customers (Rehman, 2007).

Small financing which is known as microfinance is defined as the financial services such as saving, loans and micro insurance provided to lower income people, poor entrepreneurial who can't access to the formal banks (Consultative Group to Assist the Poor CGAP, 2011b). From this definition, customers of Microfinance institutions are at poverty level, vulnerable, non-poor, upper poor, poor and very poor. It has been widely acknowledged that the financial sector growth contributes significantly to the growth of the income. Galilean and Kirkpatrick (2001) argued that 4% increase in the growth rate of poor people's income is due to the 10 % increase in the development of the financial sector. In the Islamic world, the poverty level has been rising due to the global financial crisis and this situation increased the responsibility of Islamic Banking and financial system to

<sup>&</sup>lt;sup>1</sup> Seiyun Community College, Yemen and Kulliyyah Muamalat, Insaniah University College, Alor Setar, Kedah DarulAman, Malaysia

<sup>&</sup>lt;sup>2</sup> College of Business and Economics, Qatar University, Doha, Qatar

significantly contribute to the development of all Muslim countries. The role of Islamic Banking and finance system is not only to fulfill the emergent and immediate needs of the poor people, but also to maintain their lives and enhance their productivity to ensure sustainable incomes. In other words, the Islamic Banking and financial system should enhance the self-employment opportunities and productivity of the working class to achieve better life standards.

Therefore, one of the main objectives of the Islamic Banking and financial system is to help the poor people to improve their living standard and fairly distribute the wealth. The activities of Islamic financial products can help the poor people of different level. Mughal (2012) reported that "the current researches have agreed that Islamic microfinance has an excellent option to decrease the level of poverty in both Muslims and non-Muslims societies through offering the required financial resources.

Globally, it has been acknowledged that the Islamic Banking and financial system has an annual growth rate of 10% to 15%. This growth is, in part, due to the increment of Muslim populations. Historically, the Islamic Banking and financial system have been introduced after the conventional banking and financial system had been in operation for many years. Therefore, the Islamic banking and finance system has been going through stiff competition to acquire a share in the already established market. In addition, the development of SMEs can be seen as a primary solution that helps in reducing the poverty level (MOPIC, 2004).

As it is the case in other countries, in Yemen, the number of SMEs constitutes a very high percent of all businesses and their contribution in GDP is still low that reflects the lack of attention given to develop the SMEs sector. As mentioned earlier, the difficulties of SMEs to have an access to external financial resources is consider the major obstacle.

Digging deeply, the statistics showed that Islamic Microfinance system has been only supporting 11% of the SMEs in Yemen (Fararah & Al-Swidi, 2013). This low coverage reflects that there have been many issues regarding the operations of Islamic microfinance system. One of these issues is due to the recent introduction of the Islamic microfinance system so that the business development service to be offered to the SMEs is not seen as an advantage since the Islamic microfinance has to undergo through a long process to be able to provide business development services to their SMEs clients. This factor may affect the satisfaction of SMEs owners who started their business and lack the financial resources. Similarly, the effect of business development services and the financial requirements to the SMEs satisfaction is still lacking in the literature. Despite the fact that some researchers tried to investigate the impact of business development service (Ellahi, Bukhari, & Naeem, 2010; Mahmood, 2011; Mazanai & Fatoki, 2011), the effect of the business development service on clients' satisfaction is almost absent in the literature. While discussing customer satisfaction from the SMEs perspective, finance system and Islamic Microfinance are still waiting for more research to be conducted. This study contributes to the literature by investigating other determinants of the level of satisfaction towards the products and services offered by the Islamic Microfinance institutions in Yemen from the SMEs owners' perspective.

#### 2. Microfinance System and SMEs Development

Accessing financial services is the most important driving factor of SMEs development. It is thought to increase the income levels, decline the rate of poverty level and to increase the employment opportunities. It is supposed that having access to financial credit assists the poor people to grow up their liquidity constraints and take on some investments such as the enhancement of farm technology inputs that can lead to an increase in agricultural production (Heidhues, 1995). The key purpose of microfinance based on Navajas et al. (2000) is to offer smaller loans to the poor people to improve their productivity through uplifting the life standards. The high repayment rate set up by the financing providers is the main indicators of success of microfinance program, the financial sustainability and outreach has not taken into consideration what effect has made on operations of micro enterprise and only focusing on evangelism of microfinance.

Moreover, Diagne and Zeller (2001) documented that the lack of microfinance credit offered for the below or just above the poverty line may affect negatively the SMEs overall income and welfare. However, increasing of SMEs risk-bearing abilities enables consumption smoothing overtime and coping strategies. Therefore, microfinance aims to improve the income and welfare of poor people. It is agreed that Microfinance institutions have a positive impact on SME development because they guarantee sustainable access to credit for the poor entrepreneurs (Rhyne & Otero, 1992).

In addition, Zeller and Sharma (1998) documented that microfinance can support the improvement or the establishment of the family enterprises. This, therefore, potentially make the difference between alleviating poverty and economically securing a good standard life. This fact was corroborated by Berger (1989) who indicated that microfinance tends to stabilize the income level rather than to increase the income and tends to

preserve rather than to create jobs.

#### 3. Research Framework and Hypothesis Development

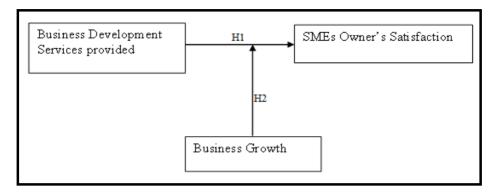


Figure 1. The research framework

#### 3.1 Business Development Services Provided by the Microfinance Institutions (BDS)

In a key study conducted by Ellahi, Bukhari, and Naeem (2010), business development services (BDS) was defined as the services provided by the microfinance institutions such as training, technology transfer, business advice, marketing assistance, monitoring, and information aimed to improve the performance of SMEs. Moreover, the Committee of Donor Agencies for Small Business Development (CDASBD) (2001) defined the BDS to "include training, consultancy and advisory services, marketing assistance, information, technology development transfer, and business linkage promotion". BDS help to increase the performance of the enterprises, to enhance the market access and to improve competition ability. In addition, BDS considered serving group and individual businesses, as different to the community of larger organizations. The International Finance Corporation IFC (2006) defined business development services as "those non-financial services and products offered to entrepreneurs at different stages to meet their business needs". Moreover, IFC adding, BDS do not offer guarantees and direction to SMEs start-up success. However, BDS providers could offer information to SMEs start-up to get guarantees for their funding. In line with that, Brijlal (2008) documented that, traditionally, BDS had been referred to as "the non-financial services". In addition, BDS may be offered together with financing services.

Further, the International Finance Corporation (2006) reported that BDS are vital elements that support entrepreneurs to run their businesses successfully if applied correctly. In other words, BDS are the enhancers of access to finance and as an alternative form of guarantee in a situation where tangible guarantee may be is an obstacle to meeting traditional security requirements. The primary focus of BDS services provision is to facilitate skills transfer and to provide business advices. According to SFD (2012), BDS would provide all the support needed for the development of enterprises through studying ways of supporting them technically by gaining experience from similar experiences, and encouraging innovations that would lead to the diversification and growth of enterprises. Therefore, the following hypothesis can be empirically tested.

 $H_1$ . There is a positive significant effect of business development service provided by IMFI on SMEs owners' satisfaction.

#### 3.2 Business Growth

The most important goal for business organizations is to increase the profit and growth while a nonprofit organization aims to have a significant growth and outreach. Penrose and Pitelis (1995) defined each firm or institutions as "an administrative organization whose legal entity or frame work may get bigger in future with the group of both physical resources and tangible resources such as human". Relatedly, the business growth is defined as "an increase in the size of organization or other aspects that can be a measured or a process of improvements and changes". The size of each organization reflects the growth of firm according to the period of time. Also it has to be recognized that the growth is a procedure while firms have to follow. Moreover, the firm growth can be indicated by many factors such as the increase of the capital, the increase of number of labors and the investment opportunities pursued. Similarly, the government of Canada and SMEs Financing Data Initiative, (2002) defined size as "an element related to the growth rate and specific activities that significantly effect on SMEs' external financing needs".

Improving the sustainable income of the poor is the main economic goal behind the introduction of the microfinance institutions. In developing countries such as Yemen, the level of living standards is very low especially in the rural areas. However, the poor people could obtain the required financial resources for their SMEs and subsequently improve the level of income. In general, the function of MFIs is to help the poor people by offering financial services with low cost. The main purposes of any microcredit program, according to Navajas et al. (2000), is to deliver an excellent access to microfinance services that are not offered by formal financial institutions. This will lead to improve the quality of life of the poor and increase their welfare. Diagne and Zeller (2001) documented that, offering microfinance services to the poor may have a positive effect for SMEs and overall welfare. It is confirmed that MFIs have to offer sustainable microfinance services and high outreach in society. In addition, MFIs may have a positive impact on SMEs development sector by providing sustainable guarantees that facilitate their access to finance.

The growth of the SME makes a difference in appreciating all the programs and policies offered by the Islamic microfinance system. In this study business growth factor is expected to moderate the effect of business development services on the satisfaction of the SMEs owners. Thus the following hypothesis is introduced for empirical test.

*H*<sub>2</sub>. Business growth has a moderating effect on the relationship between BDS provided by IMFI and SMEs owners' satisfaction.

#### 4. Research Methodology and Statistical Data Analysis

#### 4.1 Measurement and Instrumentation

The measures of the study were adapted from the past literature. Specifically, the measurements of Business Development Services (BDS) were taken from the associated researches in the financial sector related to the satisfaction literature of customer. Moreover, the study used deployed measure and it has been taken from (Ellahi et al., 2010; Mazanai & Fatoki, 2011). The measurement related to Business Growth was replicated from (Heaney & Goldsmith, 1999) and the overall satisfaction measure was taken from (Angelova & Zekiri, 2011).

#### 4.2 Population and Sample

The population of the study encompasses the total number of SMEs in Yemen which deal with Islamic microfinance institutions is 34124 (Fararah & Al-Swidi, 2013). To test the model of the study and to examine the developed hypotheses, a simple random sample as probability technique was used to select the data form the list of beneficiaries of the Islamic microfinance providers. Based on that, 532 questionnaires were distributed out of 346 questionnaires were returned. Among the returned questionnaires only 320 questionnaires were complete, useful, and usable for the analysis stage.

To examine the model of the study, Partial Least Squares Structural Equation Modeling (PLS-SEM) approach was employed utilizing the SmartPLS package 0.2. The analysis was detailed in the following sections.

#### 4.3 The Measurement Model

The first step was to confirm the validity and reliability of the measurement model following the Partial Least Square Structural Equations Modeling (PLS SEM). The SmartPLS 2.0 package was used.

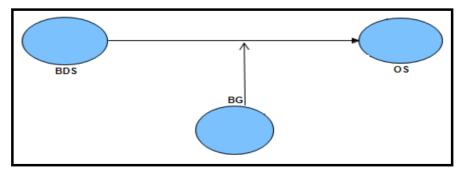


Figure 2. The research framework

Before testing the hypotheses of the study, the measurement model was assessed first using partial least squares structural equation modeling (PLS-SEM). Two steps were followed to confirm the model's goodness of fit. In so

doing, construct validity, which include factor loadings, composite reliability, Cronbach's alpha and convergence validity, was ascertained. Also, the discriminant validity using the Fornell and Larcker (1981) criterion was examined and confirmed.

Table 1. Factor loading

Variables	Items	BDS	OS	BG
BDS	BD38	0.765	0.542	0.568
	BD39	0.829	0.572	0.508
	BD40	0.838	0.595	0.483
	BD41	0.766	0.490	0.488
	BD42	0.787	0.516	0.466
	BD43	0.746	0.476	0.495
	BD44	0.663	0.424	0.338
Overall Satisfaction	OS51	0.465	0.721	0.402
	OS52	0.555	0.813	0.495
	OS53	0.523	0.804	0.400
	OS54	0.598	0.835	0.439
	OS55	0.469	0.719	0.404
Business Growth	BG34	0.470	0.424	0.800
	BG35	0.494	0.393	0.781
	BG36	0.551	0.490	0.846
	BG37	0.434	0.414	0.712

Table 2. Convergent validity

Variables	Items	Loading	Cronbach's Alpha	Composite Reliability	AVE
BDS	BD38	0.765	0.886	0.912	0.597
	BD39	0.829			
	BD40	0.838			
	BD41	0.766			
	BD42	0.787			
	BD43	0.746			
	BD44	0.663			
Overall Satisfaction	OS51	0.721	0.838	0.885	0.608
	OS52	0.813			
	OS53	0.804			
	OS54	0.835			
	OS55	0.719			
<b>Business Growth</b>	BG34	0.800	0.793	0.866	0.618
	BG35	0.781			
	BG36	0.846			
	BG37	0.712			

Note: <sup>a</sup> Composite Reliability (CR) =  $(\Sigma \text{ factor loading})^2/\{(\Sigma \text{ factor loading})^2) + \Sigma \text{ (variance of error)}\}$ 

#### 4.3.1 Construct Validity of the Measurements

Construct validity refers to the degree to which the items generated to measure a construct can appropriately measure the concept they were designed to measure (Hair et al., 2010). More specifically, all the items designed

<sup>&</sup>lt;sup>b</sup> Average Variance Extracted (AVE) =  $\Sigma$  (factor loading)<sup>2</sup>/( $\Sigma$  (factor loading)<sup>2</sup> +  $\Sigma$  (variance of error)}

to measure a construct should load higher on their respective construct than their loadings on other constructs. This was ensured by a comprehensive review of the literature to generate the items that already have been established and tested in previous studies. Based on factor analysis, items were correctly assigned to their constructs. The items showed high loadings on their respective constructs when compared with other constructs as showed in Table 2 and all the items have significantly loaded on their respective constructs (Chow & Chan, 2008).

#### 4.3.2 Convergent Validity of the Measurements

Table 2 shows that the composite reliability values ranged from 0.860 to 0.964. These values exceeded the recommended value of 0.7 (Fornell & Larcker, 1981; Hair et al., 2010). The average variances extracted (AVE) values ranged between 0.593 and 0.931, indicating a good level of construct validity of the measures used (Barclay et al., 1995). These results confirm the convergent validity of the outer model.

#### 4.3.3 Discriminant Validity of the Measures

The discriminant validity of the measures was confirmed by employing the method of Fornell and Larcker (1981). As illustrated in Table 3, the square root of average variance extracted (AVE) for all the constructs were placed at the diagonal elements of the correlation matrix. As the diagonal elements were higher than the other elements of the row and column in which they were located, this confirms the discriminant validity of the outer model.

Table 3. Discriminant validity

Constructs	1	2	3
1) BDS	0.773		
2) Business Growth	0.622	0.786	
3) Overall Satisfaction	0.673	0.550	0.780

#### 4.3.4 Prediction Relevance of the Model

Results pertaining to the prediction quality of the model are illustrated in Table 4, which indicated that the cross-validated redundancy of Overall Satisfaction was 0.264 and the cross-validated Communality was 0.608. These values were more than zero, indicating an adequate predictive validity of the model based on the criteria suggested by Fornell and Cha (1994).

Table 4. Prediction relevance of the model

Constructs	R Square	Cross-Validated Redundancy	Cross-Validated Communality
Overall Satisfaction	0.481	0.264	0.608

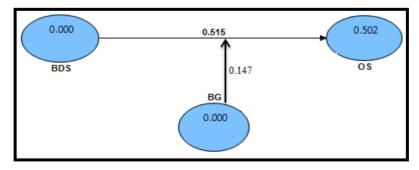


Figure 3. Path model results

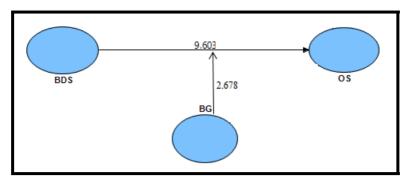


Figure 4. Path model significance results

#### 4.3.5 Hypotheses Testing

After the goodness of the measurement model had been ascertained, the next step was to test the hypothesized relationships among the constructs. Using the SmartPLS2.0, the hypothesized model was tested by running the PLS algorithm. The path coefficients were then generated, as illustrated in Figure 2 and Figure 3.

As illustrated in Figures 2,3 and Table 5 the BDS has a positive and significant effect on the levels of satisfaction of IMFI customers at the 0.001 level of significance ( $\beta$ =0.515, t= 9.188, p<0.001).

Table 5. Hypotheses testing

Hypotheses	Path Coefficient	Standard Error	T value	P value	Decision	
BDS -> OS	0.515***	0.056	9.188	0.000	Supported	
$BDS * BG \rightarrow OS$	0.147***	0.052	2.832	0.002	Supported	
t > 1.65* (p < 0.10); t > 1.96** (p < 0.05); t > 2.58*** (p < 0.01)						

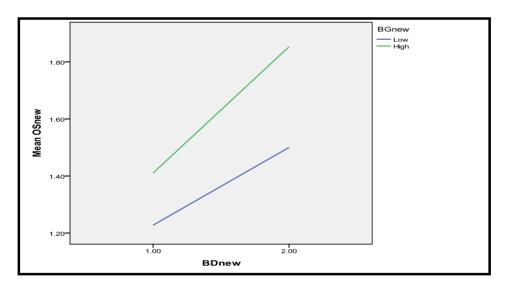


Figure 5. The moderating effect of BG on the relationship between BDS and overall satisfaction (OS)

Apparently, the results of the study supported the hypothesis of the study H<sub>1</sub>. This finding indicated the importance of business development services provided by the financing institutions to higher the level of SMEs owners' satisfaction.

The next step was to examine the moderating effect of business growth on the relationship between business development services (BDS) and the overall Satisfaction (OS). Based on the moderating definition, business growth (BG) is said to be a moderator on the relationship between business development services (BDS) and overall satisfaction (OS), if the direct effect become stronger or changed the form when the moderating variable is

accounted for (Hair et al., 2010). The results, as illustrated in Table 5 and Figure 4 confirmed the moderating effect of the business growth on the relationship between BDS and SMEs owners' satisfaction at the 0.01 level of significance ( $\beta$ =0.147, t= 2.832, p<0.01), thus hypothesis H<sub>2</sub> was confirmed.

The graph in Figure 5 showed that although the BDS provided by the financing organizations, as a construct, has a positive effect on the satisfaction of SMEs owners, the rate of change in the high business growth situation will be higher than that of the low business growth situation. This signifies the moderating effect of business growth and how much difference it could affect the sensitivity of the SMEs owners' satisfaction.

#### 5. Discussion and Conclusions

This study aimed mainly to investigate the effects of BDS provided by the Islamic Microfinance institutions in Yemen on the satisfaction level of the small business owners as well as the moderation role of business growth.

SMEs are the building blocks of each economy, these business entities are run by fresh people who need consultation from the micro credits' providers. That is, the new enterprises or SMEs should be offered the business consultation services so that they could be able to survive, grow and be able to repay the money back to the banks and microfinance programs. That is why the BDS, as a factor, is one of the main determinants of the satisfaction of SMEs owners and drive them to a fruitful interaction with the provided program.

Due to the importance of the business development service (BDS) provided by Islamic Microfinance Institutions (IMFI) to the SMEs owners' satisfaction, hypothesis H<sub>1</sub> was tested and the results confirm the stipulated hypothesis. This result indicated that the business development service provided by the IMFI is considered to be one of the most important determinants of SMEs owners' satisfactions. This result is in line with some previous studies such as, Ellahi et al. (2010); Mazanai and Fatoki (2011), Mahmood (2011) and Fararah et al. (2014). As well as this result consistent with the Social Exchange Theory (SET), however, this finding explained to what extent the BDS can determine the satisfaction of SMEs' owners.

In examining the moderating effect of business growth on the relationship between business development services provided by IMFI and SMEs owners' satisfaction, the results confirmed the articulated hypothesis as in H<sub>2</sub>. This result imply that in the situation of high perceived business growth opportunities, IMF providers should intensify the provided business development services to ensure the feasibility and survival capabilities of the SMEs.

The results of the paper might be very useful to academics and Islamic bankers who concern about the compatibility and success of the microfinance system and the factors that could affect the connection with their individual and corporate partners.

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#### Note

Note 1. Reported by Bukhari and Muslim.

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# Superstructure Analysis in News Stories-A Contrastive Study of Superstructure in VOA, BBC, and NPR News

Xinyue Zhang<sup>1</sup>, Yujiao Pan<sup>2</sup> & Mengmeng Zhang<sup>2</sup>

Correspondence: Yujiao Pan, School of Foreign Languages, Dalian University of Technology, China. E-mail: 1295097218@qq.com

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#### Abstract

In news discourse, it is necessary to conclude the general feature of news discourse. It is supposed that there is a standard structure or news schemata to organize the news report. As we all know that the beginning of the news is headline or lead, in the following, there are main event, comment, previous event, aftereffect, situation and so on. The author of this paper chose 60 pieces of news from VOA, BBC, and NPR. The author used news schemata to analyze each piece of news. The purpose of this paper is to find out whether the structure of news fits the schemata or not and further describe the writing features of each news station. Moreover, different news stations have different characteristics in writing styles. BBC news emphasizes the role of comment while reporting the event, but it pays little attention to introduce the situation or background information. VOA news has no distinct feature in comment and main event; however, it spends more words on introducing background information. There is one point the author wants to remind: though verbal reaction does not as important as other elements, BBC and NPR indeed contain this item; VOA news has no verbal reaction at all. VOA reporters do not prefer to quote the exact opinion from news actors. NPR prefers to pay more attention to main event, and pay little attention to aftereffect. From concluding news schemata, it is not only helpful to know reporting features of the stations, but also helpful to study news discourse in a more clear, systematic and interesting way.

Keywords: news discourse, radio news schemata, superstructure, VOA, BBC, NPR, discourse analysis

#### 1. Introduction

Discourse analysis is a mixed branch of discipline, which develops from linguistics, anthropology, semiology, psychology and so on. It emerged in the early 1970s. In the first period of its development, a number of important studies published: Brown and Yule (1983), Stubbs (1983) and Van Dijk (1983), among whom Van Dijk is an outstanding scholar for his effort and contribution in discourse analysis. In the process of its history, a great number of new and emerging research fields have been of benefit to the systematic analysis of the linguistic features and patterns. Many researchers have expanded the scope of discourse analysis, ranging from fixed and written form to conversation under various circumstances.

#### 1.1 Language Data

This paper concentrates on the development of discourse analysis and its relevant theories; it takes news analysis as the example. Moreover, the author chooses 60 pieces of news from VOA, BBC and NPR to conclude the feature of news.

#### 1.2 News Analysis

It will be rather difficult to cover the whole range of discourse analysis in a single article, for it is a complicated and broad discipline. The author therefore focuses on news discourse. From analyzing that news, we might get the rule or pattern of news writing, which helps the writers and readers further and better understand the situation. For example, people want to 'situate' medical discourse in a hospital, educational discourse or conversations in schools or universities, and political discourses in parliament. After getting the context model, when the reader reads a story about domestic violence, his understanding of such a story forms a model of that event. In this way, the reader builds a bridge between knowledge and news models.

<sup>&</sup>lt;sup>1</sup> School of International Education, Dalian University of Technology, China

<sup>&</sup>lt;sup>2</sup> School of Foreign Languages, Dalian University of Technology, China

#### 1.3 Purpose

The main purpose of this paper is that from news analysis of those 60 pieces of news, finding news schemata and deciding which element plays a more important role in news writing. On one hand, such a schemata helps the journalists to finish the news writing in the first time, on the other hand, it helps the readers to understand the news as quick as possible, for they have already had a news model in their minds.

#### 1.4 Method

The author collected 20 pieces of news from each radio station (VOA. BBC, NPR). Those 60 pieces of news are all chosen stochastically. For each piece of news, the author researched its pattern from the macrostructure angle. As for the research part, the author got the percentage of each element over the whole passage. In this way, it is easy to find which kind of writing pattern the journalists prefer.

#### 2. The Literature Review

#### 2.1 Discourse Analysis

Discourse analysis, merged in the early 1970s. The modern history of written discourse is perhaps span 40-50-year. In the first period of its development, a number of important studies published: Brown and Yule (1983), Stubbs (1983) and Van Dijk (1983). Discourse analysis is the field, which deals with the organization of texts, ways in which parts of texts are connected, and the devices used for achieving textual structure.

Discourse analysis is a multidisciplinary field. It draws form anthropology, applied linguistics, autonomous linguistics, English, education, law, psychology, rhetorical studies, sociology and technical communications. These approaches have a common concern: they stress the need to see language as a dynamic, social, interactive phenomenon---whether between speaker and listener, or writer and reader

#### 2.2 Macro-structure

Not all-textual analysis starts with small units and works, some approaches aim to make very general statements about macrostructure of a text. For example, psycholinguistics attempts to analyze narratives into schematic outlines that represent the elements in a story that readers remember. These schemata are called 'story-grammars'. (David crystal. the Cambridge encyclopedia of language. Cambridge university press, n. d., p. 119). In one such approach, simple narratives are analyzed into four components: setting, theme, plot, and resolution. The setting has three components: the characters, a location, and a time. The theme consists of an event and a goal. The plot consists of various episodes, each with its own goal and outcome. Using distinctions of this kind, simple stories are analyzed into these components, to see whether the same kind of structure can be found in piece of news.

As reducing the complexity of such environments in complicated stories, they deal with news report or novel in the same way: they use the general category of a schema, representing local information at macro-level. Therefore, they summarize the social environment at the macro-level of their context models. *Van Dijk* (2005) states that it is in this way that they are able to control the local situation variables and their information, and control discourse at the same time at the micro and macro levels. And the reduced situational information not only is suitable for the constraints of context models, but fit the semantic macrostructures of discourse, which are necessary to produce globally coherent discourse. Thus the macro-level information in the context models well controls both the local and the global appropriateness of the discourse.

There are two different models of the same structure --- a micro and a macro model. As for the current situation, language users may foreground or background the global level information. This level-dependent processing of situational information is not limited to contexts, but also well known in discourse processing itself: language users are able to express and understand meaning at various levels between micro and macro structures (Van Dijk, 1980)

#### 2.3 News Discourse

Among various discourse analyses, Dutch scholar----Van Dijk's study of news discourse has his peculiar feature. He believes that discourse is a kind of social control power, which represents the willpower of authority, and reflects special power structure. Such as developed countries and developing countries, celebrities and common citizens, parents and children, teachers and students, white men and black men. The people who control and spread discourse are news journalists, writers, artists and scholars. These people are called "symbolic elites". The powerful people are entitled to control all kinds of discourse, while common people are only able to control daily conversation. The aim of Van Dijk's study is to observe in what ways the powerful people implement, express, describe or conceal their ambition through context and discourse. In particular, he pays much attention to the role of ideology; he had made amounts of media discourse surveys, such as news report, TV program, and

advertisement. His purpose is to illustrate how western authorities control the form and content of discourse, and further control the belief and ideology of society.

Since from 1980s, Van Dijk used discourse analysis to study news report, and made new progress. In his opinion, to vast majority people, news report is the most common type of written discourse, and news text plays an important role in mass communication. Therefore, making discourse analysis to news is not only helpful to understand other media discourse, but also helpful to know social function of mass communication. Firstly, he analyzed the internal structure of news discourse; the idea of this analysis is derived from demonology. The same to other discourse, news report also has its systematic structure; he called it "superstructure" which consists of conventional categories. It is supposed that superstructure is a tall building, conventional categories is the rooms of the building. Though each room is different, the basic architectural principles are the same. Therefore, it is quite easy to distinguish which are news reports, which are not, because they have the same form.

Journalists have to deal with those conventional categories, for example, in order to fill in verbal reactions, reporters need to interview important news actors: in order to introduce background, reporters have to refer to historical literature or cyclopedia. In the process, the journalists add their emotion and ideology to the report. For example, whose opinion should be quoted, whose should not, in what forms quote the verbal reactions. These elements control the news text and news orientation.

Like many other discourse genres, making extensive use of reference to the places and periods of events, these also require conceptualization about the place and time frame of the speaker or writer.

Some of this global information may be more accessible than other information: We usually have direct access to the information about the city or country we are in. People probably do have Macro representations of agency in context models not only feature identity, but also information about roles and relationships for collective agents. Thus, the newspaper may discursively self-represent itself as opponent of the government or as critic of industrial environmental practices, as would typically be the case in editorials.

This paper tries to see whether the news, which the author chose, is belonging to the radio news schema. The notion of schema implies the consideration of sociocultural conventions that exist around texts or discoursal units, and it should be taken into account when measuring the readers' comprehension.

There are two elements affected reading comprehension: one is reader' prior knowledge; another is the notion of the reader as an active subject whose mental background is activated in every act of learning. In top-down reading comprehension models, readers are envisaged as interacting with texts, in that they interpret the text and infer its meaning with the help of their own knowledge, so that every act of reading is different even if the text is the same.

#### 3. The Examples of Macrostructure

The term of macrostructure was firstly put forward by Konstanz. Van Dijk had said that German linguist Bierwisch used this term in 1965. Another term opposed to macrostructure is microstructure. Microstructure is the basic proposition to describe the detailed event or state. The process of transform microstructure to macrostructure is shrink several basic proposition into more general proposition. For example, "the man walked to his car, got in and drove off" can be shrunk into "the man drove off". Because readers want to know that the man drove off, not the process how he drove off. Generally speaking, there are three kinds of macro rules: deletion rule, generalization rule and construction rule. In the following, the author will give readers some examples for each rule:

#### a) Deletion

The above example belongs to this category

- b) Generalization
- "My daughter likes kittens and puppies" can be substituted by "my daughter likes small pets."
- c) Construction
- "Jack went to the station, bought a ticket, walked to the platform and got on board the train" can be changed by "Jack took a train."

Those are short sentences, for paragraphs, three rules can be used at the same time. Here is an example of the paragraph:

Yesterday afternoon Mary was at her bank round the corner. Suddenly, one of the clients took a gun out of his pocket. He shot a couple of times in the air and then aimed at the cashier. He said that he wanted all the cash she

had in her desk. She was frightened and gave the money to him. Then he ran away. The police have not ye caught him.

The first round:

Yesterday afternoon Mary was at her bank round the corner. A client threatened the cashier. He wanted all her cash. She gave in and he escaped.

Here" shot a couple of times in the air and then aimed at the cashier" using construction rule. Therefore, the sentence is substituted by "threatening"

The second round:

Yesterday morning at our bank, a client threatened the cahier. He wanted all her money. He succeeded.

The third round:

Somebody robbed our bank yesterday.

In the first round, construction rule was used, that is why the macrostructures "a client threatened the cashier" and "she gave in" come out. The proposition "he wanted all her money" using deletion rules.

It is certain that different people have different ways to deal with macro rules and get different result. Generally speaking, each way is done under these three rules.

In news analysis, similar method is used. The difference is that in news schema, each sentence is categorized into more general element.

#### 4. Radio News Schemata

#### 4.1 Introduction of Radio News Schema

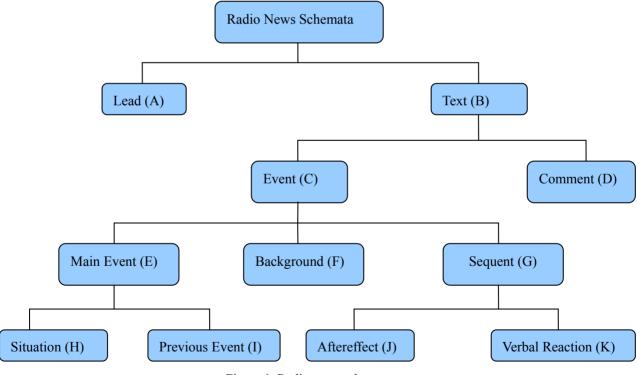


Figure 1. Radio news schemata

As a discipline of discourse analysis, news analysis is the best example to illustrate macrostructure. In news report, the journalist will have to produce the news in the first time; one feature of news is its prompt in report. Therefore, the journalists should have certain rules or patterns to follow. In this way, they do not need to create new style or way of writing in the spot. Different from novels and prose, readers care little about whether the news has the polished language or not, they really care about what kind of information the news confers. If some patterns of news report are concluded, on one hand, it is convenient for reporters to organize the text of news. On

the other hand, with the help of background information and common sense, it is easier for readers to understand the event, both of national event and international event.

It is certain that different radio stations and newspaper offices have different writing styles. For example, some stations pay more attention to the relationship between many events; others concentrate on verbal reaction to increase reliability. Thereby, the author chose 60 pieces of news from 3 different radio stations. (VOA, BBC, NPR). All of them are famous foreign stations. It is hoped that from analyzing their news, the author could find the radio news schema, to prove whether or not fit Xiongxueliang's schema. Of course, it is impossible that each piece of news includes every element, the purpose of this paper is to find out which elements are frequently used, which elements play the important role in composing the news.

The author chose 60 pieces of news from 200 pieces of news to make the research more reasonable. All the news is from January to March 2006. There is one point to emphasize: all 60 pieces of news are random samples.

#### 4.2 Elements of News Schemata

There are seven parts of the news schema: lead, main event, comment, situation, previous event, caused result and verbal reaction.

Lead is a necessary part of news schema. Of course not all the news has lead. The function of lead is generalizing the news content so that readers will know the central idea easily. It is a good way to attract readers' attention and interest. The function of the lead is to tell the readers what had happened in one or two simple sentences. Judging from the lead, readers are able to decide whether this piece of news is worth reading or not. Therefore, many people have the habit of scanning the news leads, they only curious about the events, not the detail of the events. To some extent, this is timesaving. After reading the lead line, other readers care about the exact detail of the matter.

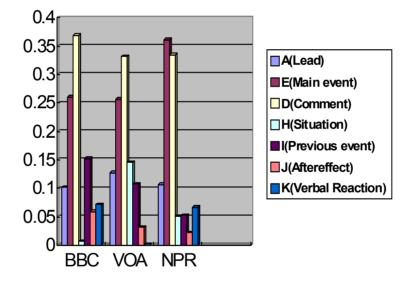


Figure 2.

News schema contains comment on the news background and news itself. In majority situation, background situation appears in the last part of the news, which is after reporting the main event. Background situation includes historical reason of the present event. In some cases, it is difficult to classify background and previous event. Reporters often remind readers what had happened by presenting previous event.

Aftereffect frequently appears in the news schema. For social and political events, the serious level of aftereffect determines their news value. Discussion towards real or potential sequence may increase causal coherence to the report. Sometimes, aftereffect is more important than event itself.

In most cases, after reporting significant news event, important participants and prestigious politicians are invited to present opinions on the event. The reason for making such arrangement is simple: journalists have the opportunity to expound impersonal facts, which do not necessarily equal to their own opinion, because these opinions are expressed as they are. Reporters only record what participants said. However, it may not objective

to choose what kinds of people to make comment and publish which parts of their opinions.

Though many editors and journalists agree that facts should not mix with opinion, comment indeed exist in the news report, sometimes in indirect form. Comment contains appraise and prediction. Appraise on the value and meaning of the event; prediction to the political aftereffect and other aftereffect, or potential sequent. It is not enough if the passage only has lead line and main event, because if the reporters write everything of their own, it is not persuasive for it will evitable add the reporters' opinion. So the better way is quote others' words in the passage, using others' opinion to increase reliability as well as reduce the responsibility of conveying false information. On the condition that the news deliver wrong information, perhaps news station has no intention to do that, it is coincidence. The station has enough reason to avoid shouldering responsibility.

It can make the best of both worlds. From the study of 60 pieces of news, it is concluded that all of those 60 passages have the comment, the comment from the officers, police, government and United Nations

#### 5. Results and Discussion

#### 5.1 Analysis of the Statistics from News Study

Looking at the graph, it is obvious that E (Main event) and D (comment) have the highest percentages in the graph. Compared with two other stations, BBC news station has comment element in the highest level. It is proved that in reporting news, BBC news pays more attention on comment, comment from reporter, authority, and official. Meanwhile, the percentage of situation of BBC news is very small. VOA news has the highest level of situation element. It means that VOA spends more words on the introduction of situation, which includes historical background, present international surrounding. By contrast, VOA news has no oral reflection item, though BBC and NPR news have very low percentage of K item, they indeed have this item. All of 20 pieces of VOA news do not have oral reflection from participants. Therefore, there is no blue mark in the graph. NPR news focuses on reporting main event,

From the graph, it is quite easy to know the reporting features of each station. All of these stations have their own focuses and characteristics.

- 5.2 Analysis of News
- 5.2.1 Examples from BBC News

(BBC 2006-03-01)

- (A-1) At least 18 people have been killed in continuing violence in Iraq.
- (E-2) The heaviest casualty has come in motor attack of a Shiite/in southern Baghdad.
- (D-3) Meanwhile, for the second time in a week, insurgence has attacked the Shiite muslin shrine.
- (E-4) A bomb exploded at the/shrine in the southern city of Basra. John brand reports from Baghdad
- (D-5) The motor-attack at door inside Baghdad/marked the tide of sectarian violence which is plaguing Iraq.
- (I-6) A train was parked into a shrine enclave within a mainly Shiite neighborhood.
- (D-7) It was just one of a series of acts of violence across the country.
- (I-8) In Bakuba two men were killed in a drive by shooting as they're playing football, several children with them were injured.
- (I-9) And in Basra, a bomb exploded in a Shiite shrine.
- (J-10) The device detonated prematurely injured the men who planted it and failing to damage intended targets.
- (D-11) But despite another dark day in Iraq, there has been a glimmer of light on the political front.
- (D-12) The biggest Shiite bloc said they had prepared to consider resuming negotiation to form new government.

In the news, A, E, D, I, J represent (1). (2-4). (3-5-7-11-12). (6-8-9). (10). This passage contains five elements of schema. It is obvious that lead, event and comment are the basic elements; almost every passage contains those elements. The author classified the third, the fifth, the seventh, the eleventh and the twelfth sentences into comment group. Sometimes, it is acceptable for reporters to air their opinions because their comment is based on research and interview.

In the lead, reporter should state clearly 5W and 1H, which is what, happened, when it happened, where did it happen, who did it involve and how did it happen. For this lead, the reporter states many elements: who (18 people), what (have been killed), when (---), where (in Iraq), why (---). There is a tendency that the method of reporting has been simplified, not all the items are included in the lead. It depends on the situation.

- (1) Lead: 18 people were killed
- (2) Comment: motor attack was the heaviest casualty.
- (3/4) Main event: introduce the violence.
- (5) Comment: comment on the motor attack.
- (6) Previous event: the detail of the attack.
- (7) Comment: motor attack is just one of the violence.
- (8/9) Previous event: the casualty of the attack.
- (10) Aftereffect: the device injured a man.
- (11) Comment: reporter's comment on Iraq situation.
- (12) Comment: Shiite blot prepared to form new government.

In this passage, there is no direct comment from authority. The case is that the reporter told the readers when and where a series of violence happened, of course he got the statistics from the authority, but he did not use others' words.

(BBC 2006-01-25)

- (A-1) The Ford Motor Company has unveiled plans to lay off up to 30,000 workers and shut down 14 plants in North America as part of an attempt to turn around its loss-making operation.
- (E-2) The cuts will hit nearly a quarter of Ford's North American workforce.
- (D-3) The Chairman Bill Ford has described the restructuring plan as a last resort.
- (D-4) Our business correspondent Th.L. said the US car industry is facing huge competition from Asia.
- (I-5) For years and years, they had everything in their own way.
- (I-6) They dominated their home market.
- (I-7) They also exported cars around the world.
- (I-8) American cars were the best.
- (D-9) That simply isn't the case anymore.
- (H-10) And the Japanese have invested time and money into building cars that people want to buy.
- (J-11) And gradually, they've been making inroads into the US market.
- (E-12) And what's really sparked the thing off now is that the American carmakers were focusing on building big, powerful off-road cars.
- (H-13) But then with rising oil prices, the cost running those went up, people became a little less enthusiastic about them.
- (J-14) And they've started to find that the products the Japanese offering have more appeal.
- A (1), D (3.4.9), J (2.11.14), I (5.6.7.8) H (10.13) E (12)

In the lead, reporter presents many items: who (the ford motor company), what (lay off workers and shut down plants.), when (---), where (North America), why (turn around its loss-making operation).

- (2) Caused result: the plan will hit nearly a quarter of its workforce.
- (3/4) Comment: get affirmation from two person, chairman and correspondent.
- (5/6/7/8) previous situation
- (9) Comment: the situation changed
- (10) Situation: USA facing competition from Japan.
- (11) Previous event: Japanese cars inroad to USA
- (12) Main event: the disadvantage of US cars
- (13) Situation: external reasons
- (14) Aftereffect: the sequence of competition.

This news includes more elements than others: lead, main event, comment, previous event, aftereffect, and

situation. There is no oral reflection only. In fact, the vast majority of news does not have this item, except the report need to record the spot situation vividly. The passage focuses on the reason why Ford Motor Company failed in the competition against Japan. It recalls the history, states the present and points out the weak points of Ford. Therefore, the news has more words on previous event and situation.

(BBC 2006-01-01)

- (D-1) The head of the United Nations Refugee Agency Antonio Guterres has expressed shock at the loss of life during an operation by Egyptian police to remove Sudanese migrants from a makeshift camp in Cairo.
- (E-2) Egyptian government says at least 20 people are known to have died.
- (D-3) As Bethany Bell reports from Cairo, the Egyptian Foreign Ministry stressed that attempts to end the protest peacefully had failed.
- (D-4) The Egyptian Foreign Ministry said that it had done all it could to trying convince the Sudanese to end their three-month long protest peacefully.
- (E-5) But it said the migrants had rejected all offers and it has become necessary to end the protest.
- (I-6) Earlier on Friday, thousands of Egyptian riot police moved in with water-cannon and truncheons to break up the camp where up to 3,000 Sudanese have been living.
- (E-7) The protesters have been demanding to be resettled in the west, something the UNHCR said it was unable to guarantee.

D (1.3.4) E (2.5) I (6)

This passage is relatively simple and only has three elements; particularly there is no lead. The first sentence said the authority expresses shock at the loss of people.

- (1) Comment: UN comment on the event.
- (2) Main event: What had happened?
- (3) Comment: Egyptian authority's comment.
- (4) Comment: Further illustrate the comment.
- (5) Main event: Migrant rejected the request.
- (6) Previous situation: Egyptian police try to prevent them.
- (7) Main event: the authority could not guarantee their demand.

There are mainly two types of comment: first, reporter states clearly the name and occupation of reviewer. Such as "the head of the UN refugee agency Antonio Guterres", "the president-elect of Bolicia Evo Morales", "prime minister Ariel Sharon" and so on. Second, without stating name, "UN officials", "Turkey's health minister", "the Libyan government".

5.2.2 Examples from NPR News

(NPR 2006-03-1)

- (D-1) India's Prime Minister has said talks with the United States about an agreement that would end the international moratorium on exporting nuclear technology to New Delhi have been difficult.
- (D-2) The issue is expected to dominate this week's visit to India by President Bush. NPR's Philip Reeves reports from New Delhi.
- (E-3) The proposed deal requires India to separate its civilian nuclear plants from its military ones.
- (E-4) The civilian instillations will then be opened to inspection by the UN's monitoring body, the IAEA.
- (H-5) Yet deciding which plants should be listed as civilian and which should remain secret, has proved a sticking point.
- (D-6) The Indian prime minister today sought to quell concerns in India that the agreement intended to curtail India's nuclear weapons program.
- (D-7) He told parliamentarians that his country's nuclear deterrent would not be compromised, now or in the future, and nor would research and development in that field.
- (D-8) Both sides hope to seal a deal in time for President Bush's visit, which begins Wednesday, though a final agreement will ultimately need approval from the US Congress and the Indian Parliament. Philip Reeves, NPR

News. New Delhi.

D (1.2.6.7.8) E (3.4) H (5)

(1) Comment: India's attitude towards talks with the US.

(2) Comment: expectation to this week's visit.

(3/4) Main event: requirement to India.

(5) Situation: the sticking point.

(6/7) Comment: India's prime minister's opinion to the agreement.

(8) Comment: the expectation to Bush's visit.

There is no lead in this passage; the first sentence is prime minister's comment on the talks. Reporter uses authority's opinion instead of writing lead. It is obvious that comment appears 5 times; therefore, the feature of this news is stating both sides' opinions and attitudes to the issue. It includes US's requirement to India and India's reaction. Once more, it proved that in order to make news sound more reliable, writer prefers to use other's opinion instead of have a comment of his own.

(NPR 2006-01-31)

- (A-1) 72 miners have survived a fire at a mine in the Canadian province of Saskatchewan.
- (E-2) As C.M reports, the miners retreated to emergency safety rooms and waited out the blaze.
- (E-3) The miners came to the surface a day after fire broke out in the mine about 130 miles northeast of Regina, the provincial capital. (E-4) The workers retreated to what they described as safe rooms, which are sealed off from the rest of the mine.
- (H-5) These rooms are equipped with food, water, beds, blankets and enough oxygen to last 36 hours.
- (I-6) They were trapped in these rooms since early Sunday morning when fire broke out in polyethylene piping more than half a mile beneath the surface.
- (D-7) A mine official says the pipe burned like a wick.
- (E-8) The miners managed to avoid both the flames and the toxic smoke, which made firefighting a problem.
- (H-9) Officials had to wait for the fumes to clear before giving miners the okay to leave the rooms and walk to the surface.
- (D-10) There are no reported injuries among the miners.
- (H-11) What caused the fire is under investigation.
- (H-12) The miners harvest potash, which is used as a main ingredient in fertilizer and other agricultural products. For NPR News, I'm C.M.
- A (1) E (2.3.4.8) H (5.9.11.12) I (6) D (7.10)
- (1) Lead: 72 miners have survived in a fire.
- (2) Main event: the miners are sent to safety rooms.
- (3/4) Main event: the present condition of miners.
- (5) Situation: their living condition
- (6) Previous event: since Sunday morning they were there.
- (7) Comment: police described the burnt.
- (8) Main event: what had happened in the spot?
- (9) Situation: situation in the spot.
- (10) Comment: no reported injuries.
- (11) Situation: the reason of fire is under investigation.
- (12) Comment: introduction of potash.

This passage has 5 elements of news schema, the first sentence is lead, and then describes the main event, at the same time, give readers detail information about the fire. Therefore, this news has the normal order: lead, main event, previous event and comment from different sides.

#### 5.2.3 Example from VOA News

(VOA 2006-03-25)

- (A-1) Pakistan has accused Afghan forces of killing sixteen Pakistani civilians earlier this week.
- (D-2) A spokeswoman for Pakistan's foreign minister said ministry officials met with the Afghan ambassador and protested the killings. (D-3) She said Pakistan is demanding an independent investigation of the incident.
- (E-4) An Afghan commander had said his soldiers killed 16 suspected militants after they crossed the border from Pakistan on Tuesday.
- (E-5) Pakistani officials say the victims were civilians traveling to a religious observance.
- (E-6) Afghan officials say a police officer shot and killed a local police chief Thursday in Southern Afghanistan.
- (E-7) A local official says a police guard shot and killed his supervisor, the police chief in the Musa Qala area of Helmand province.
- (E-8) Other policemen then shot the guard.
- (E-9) In the Afghan province of Uruzgan, Afghan soldiers aided by coalition forces killed 6 suspected Taliban rebels.
- (E-9) Coalition forces say the target was a Taliban command group. The forces also said they seized materials for making bombs.
- A (1) D (2.3.10.11) E (4.5.6.7.8.9)
- (1) Lead: the reason why Pakistan accused of Afghan forces.
- (2) Comment: Pakistan official protested the killings.
- (3) Comment: Pakistan demanded the investigation of the incident.
- (4) Main event: Afghan soldiers have killed 16 suspected militants.
- (5) Main event: the victims were civilians.
- (6/7/8/9) Main event: the detail of the incident.
- (10/11) Comment: comment made by coalition forces.

There are only lead, main event and comment in the passage. Most content using official's opinion from sides, even the event part, and the reporter also used official's opinion to describe the detail of the event. Therefore, the schema of this passage is quite simple, only three elements.

#### 6. Conclusion

From discourse analysis angle, this paper introduces to readers about the theories in this field, which includes discourse analysis, superstructure, macrostructure and examples of macro rules. All the above theories are the root of news discourse, for news discourse is a perspective of discourse analysis. The emphasis of this paper is analyzing 60 pieces of news by the author. It is certain that the conclusion of research is not that objective, because different people have different standards to the same passage. For example, to the same sentence, some people regard it as comment, but others treat it as main event. In spite of it, by analyzing the radio news schemata, rules in writing and organizing news can be found, therefore, it is convenient for both reporters and readers, for reporters have a clear mind how to write the news, that is put the most important information at the beginning; and readers could easily understand what kind of information the reporters want to confer.

After having a study on that news, the author finds that not all the journalists are objective about the event, some use emotional words, such as "Egyptian riot police", "defiant crowds", "iron-fisted incumbent" and so on, those words imply the author's emotion, his likeness or hatred towards certain countries and some people.

Each news station has their characteristics. BBC news prefers to quote others' opinions to prove that those words and facts are true, for readers can know who have said that. Reporters do not make up facts. VOA news pays more attention to the introduction of the background information. The reporter prefers to connect this event with other relevant information. In this way, the readers will know more detail about some hot issues. Meanwhile, NPR news stresses main event itself. Instead of quoting others' words, NPR journalists prefer to tell readers what have happened in some countries. It is obvious that the main event is based on interviewing, interviewing authority, participants, and eyewitnesses. In most cases, one piece of news only contains several items; some even only have three items. However, finding common schemata of radio news is helpful to the study of news pattern and news value.

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### Contemporary Issues in Takaful (Islamic Insurance)

Syed Ahmed Salman<sup>1</sup>

<sup>1</sup> Institute of Islamic Banking and Finance, International Islamic University Malaysia, Malaysia

Correspondence: Syed Ahmed Salman, International Islamic University Malaysia, Kuala Lumpur Malaysia, Malaysia. E-mail: salmaniium@gmail.com

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#### Abstract

Takaful business is a kind of insurance activity within the framework of *Shari'ah*. To be *Shari'ah* compliant Takaful operator, it needs to consider not only on the conventional aspect like conventional insurance, but also must take into account the *Shari'ah* requirement. Some of the *Shari'ah* requirement is avoiding interest, uncertainty, gambling and prohibited elements. Thus, the operating activities of Takaful operators are not straight forward and simple, compared to the conventional counterpart. Thus, the objectives of this paper are to highlight the current issues in Takaful industry and to provide the recommendation for future research. The contemporary issues in Takaful are due to the combined nature of profit-motivation and religious motive. The issues highlighted in this paper will be the interest of all the related parties, especially to the regulators for the development of future rules and regulation.

Keywords: insurance, Shari'ah and Takaful

#### 1. Introduction

Nowadays, Takaful becomes a popular term in the insurance market all over the world. It has been acknowledged as an alternative to conventional insurance and is offered in both Muslim and non-Muslim countries. Takaful products can be offered in other different names such as Islamic insurance, Halal insurance, ethical insurance, Islamic mutual insurance, co-operative insurance and community insurance (Noordin et al., 2014). Similar to insurance companies, almost all of Takaful companies are business entities and they are offering similar products. Thus, they need to compete with the well-established insurance companies and have to be profit oriented entities while operating within the framework of *Shari'ah*. In other words, Takaful operators have two motives, i.e. earning profit and complying with *Shari'ah*. In reality, it is not easy to achieve both objectives ultimately. There is a tendency that Takaful operators might engage in the prohibited elements in order to maximize profit (Noordin et al., 2014).

Due the rapid growth of Takaful industry, regulations and guidelines are introduced as fast as the development of Takaful market. In addition, different schools of thought and variation in the opinions of *Shari'ah* scholars lead to non-standardization on the practices in Takaful industries (Noordin et al., 2014). For instance, sharing surplus is allowed in Malaysia while it is not allowed in Middle East. Consequently, there are some issues raised by the contemporary researchers regarding Takaful industry. This paper is presented in four sections. Second section explains Takaful. Third section discusses issues and the last section concludes.

#### 2. Takaful

Insurance concept is very beneficial for us since it can provide financial assistance when we face misfortune. As rational decision makers, most of the people prefer to pay premium rather than taking unnecessary risks. In most of the developed countries, the insurance is already integrated in the daily life activities and it becomes unavoidable in most of the cases. Unfortunately, when the insurance practice is reviewed, it has Islamically prohibited elements such as interest, uncertainty and gambling. These items are strongly opposed from the Islamic teachings since the end results of involving in these elements will not provide the fairness to all the involved parties. There are three different views on the validity of insurance. First group believes that insurance is totally prohibited regardless of any circumstances. Second group supports that if insurance is necessary, it is allowable. Third group supports that conventional insurance needs modification in order to be in line with *Shari'ah* (Dikko, 2014).

Thus, Muslims scholars introduced Takaful as an alternative to conventional insurance. According to Dikko

(2014), Salman & Htay (2013) and Noordin (2014), *Takaful* is based on the concepts of *Tabarru* (i.e. voluntary donation) and *Ta'a wun* (i.e. mutual cooperation). Currently, these two concepts are premises on which contractual relationships between participants and Takaful operators are built. Currently, there are a few different Takaful models are adopted by Takaful operators and the most common Takaful models are Cooperative (*Taa'wuni*) Model, Pure *Wakalah* (Agency) Model, Modified Wakalah Model (*Wakalah* with Incentive Compensation), Pure *Mudarabah* (Investment Profit-Sharing) Model, Modified *Mudarabah* Model, Hybrid *Wakalah-Mudarabah* Model and *Waqf* Model. The available Takaful products are general Takaful products and family Takaful products. Examples of general Takaful products are for motor, fire and marine while that of family Takaful products are health, investment planned and education.

When the current development of global Takaful industry is reviewed, there are 174 Takaful operators in the key Takaful markets comprising of 34 in Saudi Arabia, 11 in Malaysia, 43 in GCC countries (excluding Saudi Arabia), 29 in ASEAN (excluding Malaysia), 12 in South Asia, 36 in Africa and 9 in the Levant. Among the Takaful products, family and medical Takaful are the main products because 80% in South Asia, 50% in ASEAN and 47% in MENA belongs to family and medical Takaful. In addition, it is predicted that Saudi Arabia, ASEAN, GCC, Africa, South Asia and Levant will be the key Takaful markets in 2014 and 2015 with the rapid growth (Ernst & Young, 2013).

#### 3. Contemporary Issues in Takaful Literature

Prior researchers have conducted research in Takaful from various angles. This section discusses the issues raised by the prior researchers and provides the opinion on each issue.

#### 3.1 Charity or Business Entity?

Altuntas et al. (2011) examine whether Takaful can be a business or charity since Takaful is based on the concept of mutual assistance and contribution. Based on the semi-structured interviews, they found that Takaful can be an alternative to insurance and it can be a business entity, not charity. Since Takaful can be a business entity, it is not immune to risks and risk management becomes part of its daily activities.

Takaful can be profit oriented as well as non-profit oriented entity. It depends on which type of Takaful model implemented by the entities. For instance, the models such as *Mudarabah*, *Wakalah* and Hybrid are intended for profit motive but the model like waqf can be for the non-profit oriented organization.

#### 3.2 Risk

According to Aris and Tapsir (2012), the Takaful operators are facing risks, namely, credit risk, liquidity risk, legal and fiduciary risk, financial supervision and transparency and supervision risk. Thus, they suggest that the risk management strategies of Takaful operators should be able to protect the Takaful fund, to have enough funds to pay for claims, to maximize the investment return, to stand and create the backup plan for the possible liquidity problem and to sustain the business. Yusop et al. (2011) examine the risk management efficiency of conventional life insurers and Takaful operators. Data is collected from the annual reports of 22 industrial players for the period of 2003-2007. RAM-DEA is used as a frontier efficiency technique to assess the efficiency of risk management. They found that both life insurers and Takaful operators have high scores for risk management efficiency and it is hard to confirm whether there is a positive or negative relationship between firm size and risk management efficiency.

One of the fundamental concepts of Takaful is risk sharing, not risk transfer. In my opinion, regardless of risk sharing or risk transfer, Takaful operators cannot run away from the risk management. It is a known fact that the participants contributes to the Takaful operators to minimize the risks might be faced by them in the future. Similarly, Takaful operators are taking the risks imposed by the participants and consequently, they need to find the way to manage the risks. If they do not manage the risks in the prudent way, Takaful operators will be facing problems and finally, the public will lose confidence in the Takaful industry. Additional responsibility of Takaful operators is the *Shari'ah* non-compliant risk. *Shari'ah* compliance is the main distinguishing factor between Takaful and conventional insurance. Thus, in order not to impair the reputational risk, Takaful operators should have precautionary and preventing way of managing the risks, rather than making corrective actions after the damage has incurred.

#### 3.3 Performance

Abdou, Ali and Lister (2014) look at the performance levels of Takaful and conventional insurance industries in Malaysia. They find that conventional insurers perform better than *Takaful* companies in terms of profitability and risk measurement but *Takaful* outperform conventional insurance when the ratio of premium to surplus is used. *Takaful* operators have prudent underwriting practices to reduce information asymmetry. Ratio of the net

premiums to contributions as macro-economic variable does not have any impact on the growth of Takaful operators. However, net investment income has statistical significant impact on both industries. This is indicative of the fact that both industries efficiently utilize their funds to generate the desired return on their investments.

Miniaoui and Chaibi (2014) compare the technical efficiency of Takaful industry Malaysian and the Gulf Cooperation Council (GCC) countries. Data Envelopment Analysis (DEA) is used in their study for the period of 2006 until 2009. The sample includes three takaful operators in the UAE, two in Saudi Arabia, two in Qatar, one in Bahrain, and four in Malaysia. They find Takaful operators in GCC countries are more efficient than Malaysian Takaful operators.

Kader et al. (2010) examine the cost efficiency of Takaful insurance companies. Sample is obtained from the World Islamic Insurance Directory and it consists of a balanced panel data set of 78 firm-years for the period 2004-2006 comprising 26 Takaful non-life insurance companies. They use non-parametric data envelopment analysis to calculate cost efficiency scores and a second-stage logit transformation regression model is used to examine the impact of corporate governance variables on cost efficiency. Their findings show that non-executive directors and separating Chief Executive Officer and Chairman do not improve cost efficiency. However, board size, firm size and product specialisation have positive effects on the cost efficiency of Takaful operators. The regulatory environment is not significantly improving the cost efficiency.

Efficiency is one of the aspects to look at the performance of the company. It is excellent measurement of performance since Takaful operators are in the service industry. Due to the recommendation of the corporate governance codes, the companies have separate leadership structure and majority of the board with non-executive directors. However, in terms of board size, most of the guidelines do not specify the optimal number of board members. Hence, when the impact of corporate governance variables on cost efficiency is examined, only board size has significant impact, but separate leadership structure and the role of non-executive directors do not. Corporate governance guideline alone cannot encourage or force the companies for the better performance of the Takaful operators. It should be supported by the serious enforcement by the relevant authorities and other legal and regulatory frameworks.

#### 3.4 Financial Accounting and Reporting

Annuar and Abu Bakar (2010) studied two Takaful companies, namely, Syarikat Takaful Malaysia Berhad and Takaful National Sdn. Bhd. regarding the choice of accounting practices. They found that the differences in the choice of accounting policies are due to Sharī'ah variation. According to the view of Shāfi'ī, management expenses should not be charged against the mudarabah capital or its realized profit because it will involve uncertainty. Consequently, uncertainty will render the *mudarabah* contract null and void. However, other schools of thoughts view that expense can be charged against mudarabah capital or its realized profit depending on the nature of expenses. Hanafi and Maliki schools confirm its permissibility to the case of journey where both lodging and food cost of the managers are covered. The Hambali school of thought says that it is not necessary to limit the manger's expense related to the journey only and he, as a mudarib, can deduct his management expenses such as food, cloth, lodging, salaries of the employees from the account even if he is staying in his home town. However, how much and which type of expenses should be according to the social or industry norms. Syarikat Takaful Malaysia Berhad follows the view of Shāfi 'ī and thus, all the management expenses are born by the company. On the contrary, Takaful National Sdn. Bhd. deduct portion of management expenses which are directly related and traced to the Takaful funds and commission for agent from the Takaful fund and the rest which are not related to the Takaful funds are born by the company through shareholders' funds. In addition, its marketing strategy relies on the agents and hence, there is a tendency that its profit will be higher than Syarikat Takaful Malaysia Berhad. No uniform guideline on the deducting the amount allocated to the Takaful risk fund from the contribution creates another issue. Starting from the first month, Syarikat Takaful Malaysia Berhad deducts 15% for Takaful risk fund and the balance 85% for the participant account. Hence, when the participants surrender earlier, they can get 85% of their contribution. However, in the case of Takaful National Sdn. Bhd., for the first three years, more than 50% of the contribution goes to the Takaful risk fund and the balance is allocated to the participant account and after three years only, at least 25% of the contribution goes to Takaful risk fund and the balance goes to the participant account. Thus, if the participants surrender early, they are at the disadvantage compared to the participants of Syarikat Takaful Malaysia Berhad. In sum, they recommend to have standardization for accounting policy by passing the fatawas so that it will be fair and just to the participants.

Financial reporting and accounting is the tool used by the management to discharge their fiduciary duty towards the shareholders and other stakeholders. Fairness and justice is required in Islam and all the participants should

be treated fairly. Since Takaful operators have more knowledge in the operational aspect, compared to the participants, the operators should not take advantage on the Shari'ah variation. This is the time for the regulators to synchronise all the possible variations for the betterment of the whole industry.

#### 3.5 Awareness on Compliance

The study conducted by Akhter and Hussain (2012) examines the compliance of Takaful standards by the Takaful operators in Pakistan. Takaful standards are risk assessment and management standards, corporate governance standards, reporting standards, internal controls, fraud detection and prevention standards, capital adequacy and solvency standards and Shari'ah compliance standards. From the questionnaire response of CEOs of three Takaful operators, the level of the observance of Takaful operators in Pakistan towards the reporting standards and internal control is very low.

Takaful has been offered widely all over the world including both Muslim and non-Muslim countries. Among the Muslim countries, Malaysia has come out with Shari'ah governance framework and Islamic Financial Services Act 2013 for Islamic financial institutions. And the Central Bank of Malaysia is regulating and monitoring the Takaful operators. One of the main reason for it is Malaysia is trying to be the hub of Islamic finance. Compliance with the prevailing rules and regulation is mandatory for the industry to improve to the next level and to get the confidence from the investors. There are Takaful operators which are operating in non-Muslim countries and in Muslim countries where no *Shari'ah* standards are available. In this kind of situation, Takaful operators should have their own *Shari'ah* advisory board at the company level. Compliance is essential regardless of where Takaful operators are operating. It is believed that strict enforcement from the regulators is the most effective mechanism to ensure that they are operating in line with *Shari'ah*. In addition, board of directors and the person-in-charge should be regularly updated the knowledge by sending them to the training. There should be some clauses in the Acts to penalize the Takaful operators if they do not comply with the regulatory requirement.

#### 3.6 Shari'ah and Legal

Noordin (2014) and Dikko (2014) question the practices of Takaful are still in line with the concept of *Tabarru* and *Ta'a wun*. According to Dikko (2014), different Takaful models bring different issues that question the compliance with the fundamental Takaful concepts. Some of the issues are in *Mudarabah* model, it involves profit making and in all the models except pure *Wakalah* and pure *Mudarabah* models, surplus sharing is practised. Although participants make the contribution according to the concept of *Tabarru*, they can claim and get compensation. Under the concept of *Tabarru*, the contributors do not expect any return. The worst scenario is involvement with reinsurance companies due to the inadequacy of *Retakaful* operators. Noordin (2014) inserts that some of the *Shari'ah* scholars suggest a more specific Takaful contract which includes *Hiba* (gift), *Hiba Bi Shart'iwad* (gift with reward), *Al-Nahd* (co-operative partnership), *Waqf* (endowment) and *Sadaqa* (voluntary charity) to represent two main concepts of Takaful. The main issue of these models is due to the commercialization of Takaful industry and hence the profit becomes an important factor for the Takaful operators.

Shari'ah interpretations from various schools of thought bring variation not only in the accounting practices but also in the practices of nomination and hibah. According to Salman and Htay (2013), in the case of family Takaful, the participants can give the nominee and the purpose of nomination is that if the participant dies, the nominee will become the beneficiary and the Takaful benefits will be given to the nominee. Nominees can be anyone whom the participant chooses and it is not necessary that the nominee must be his or her legal heirs. Thus, the Takaful benefit might not be distributed according to Fara'id and it brings the attention of the Shari'ah scholars. One view supports that the nominee must be his or her heirs while the other view is that the nominee can be anyone and the Takaful benefit received by the nominee is the Hibah from the participant. The decision from court case like Re Ismail Binti Rentah in 1940, it has been decided that nominee is just an executor and the benefits must be distributed according to Fara'id. However, in other cases such as Re Man Bin Mihat in 1965 and Re Bahadun Bin Haji Hassan in 1974, the nominee is the sole beneficiary. In Malaysia, the majority of the Takaful operators prefer to treat the nominee as the executor. The Shari'ah Advisory Council from Bank Negara Malaysia makes a resolution that Takaful benefits can be given away as Hibah and the operators should provide the standardized form which is a clear contract to state the status of nominee as whether the nominee is the beneficiary or an executor. The distribution of the Takaful benefits should follow the contract. This resolution leads to other Shari'ah compliant issues since Takaful benefit treated as Hibah is a gift and it can be given away during the lifetime of the participants. In the case of Takaful benefits, it can be distributed after the participant passes away. One view believes that if the nominee is receiving the benefits, it is against the nature of *Hibah*.

Another view expresses their opinion that the distributed benefit should not be more than one third of the total wealth and the distribution to the nominee is in the form of *Wassiyah* (trust), not as *Hibah*. In addition, Takaful benefit given out of the participant risk fund brings another issue since it does not belong to the participant during his lifetime and hence, the benefit portion from that risk fund should be distributed according to *Fara'id*. So far, no clear-cut ruling on this matter has been reached. Thus, it is expected that *Shari'ah* scholars should examine all these issues for the betterment of all involved parties. The findings show that there are rooms to improve in order to have standardized resolutions.

Htay et al. (2013) examines the opinions of the *Shari'ah* scholars on the factors used in the underwriting process in Takaful operators. This study adopts the Delphi technique and the interview from the five *Shari'ah* scholars show that most of the *Shari'ah* scholars are not exposed to the underwriting and risk rating practices of family Takaful. However, they opine that the underwriting process is not against the *Shari'ah* but some of the determinants used in the process should be revisited.

Since the Takaful industry is relatively new compared to the conventional insurance industry, the adequacy of the Islamic laws governing the Takaful industry is sufficient to cater for all the issues in the Takaful industry. In addition, due to colonization, the common law is still influential in Malaysia to a certain extent. Lambak and Mohd Tahir (2013) explore the applicability of common law in Malaysia Takaful Act 1984 and their findings confirm that the common law is applicable as long as it does not contradict the *Shari'ah*.

Due to the rapid growth of the industry, the regulatory framework is relatively slow compared to the market growth. Hence, there is no choice except to speed up coming out with the relevant rules and guidelines to mould the industry.

#### 3.7 Current Insurance Market

Htay and Salman (2014) examine the acceptability and possibility of offering Takaful in India and propose the most suitable Takaful model for the Takaful operators. Based on the findings from 216 Muslims and 117 non-Muslims respondents show that the acceptability of *Takaful* is very high regardless of Muslims or non-Muslims and it is possible to introduce it in India. From the interviews from 10 *Shari'ah* scholars, 7 Takaful operators and 5 consultants, hybrid model, i.e. combined concept of *Wakalah* and *Mudarabah* seems to be the best Takaful model in India.

The research conducted by Samad and Siddiqui (2014) has highlighted the prospects and challenges of *Takaful* in India. The interviews were conducted in Hyderabad, Bangalore, Chennai and Mumbai and the respondents chosen were mostly Muslims between the age group of 25 to 45 years old having the monthly income over INR 10,000 per family member, focusing on the people who are likely to pay for the insurance services. The findings show that 95% of Muslims are taking the insurance policy for vehicle due to the government rule and only 5% of Muslims are taking it willingly. Only 2% of the respondents are aware about *Takaful*. 20% of non-Muslim respondents are willingly to have *Takaful* products if they are similar to the mutual and cooperative insurance and if the *Takaful* products are not more expensive than conventional ones. However, in the case of Muslim respondents, 20% of them are willingly to go for *Takaful* products even if they are more expensive than conventional products. Some of the future *Takaful* products can be offered in India are general *Takaful*, motor *Takaful*, fire *Takaful*, fire consequential loss *Takaful*, burglary *Takaful*, family *Takaful* products and mortgage *Takaful*.

Rahman & Daud (2010) examine the behaviour of participants of medical and health Takaful in Malaysia. Based on 300 respondents, they found the existence of an adverse selection since most of the claims are rejected due to discoveries of some irregularities by the management care organizations.

When the history of Takaful is examined, it can be seen that the motivating factor to introduce Takaful is due to the religious factor. This is evidenced by the findings of Maysami and Williams (2006). Based on 84 Muslim respondents by using Chi-square test, they found that the awareness of Takaful is associated with belief about Islamic fundamentals on religious and social goals. They further suggest that in order to start offering Takaful, it is necessary to have a large Muslim population.

By reviewing the findings of prior research, it can be suggested to the Takaful operators that Muslim population should be the first step they should focus on promoting the product and then try to convince the non-Muslims by explaining the attributes of the product like ethicality, benefits. At the same time, awareness of Takaful should be created by the right marketing strategy.

#### 3.8 Prospects and Challenges in Takaful Industry

Prospects of Takaful industry are rising in the oil price causes Muslim investors to think of investing in the

Middle East and South East Asia where the Islamic finance industry is booming, increasing awareness among educated Muslims and Muslim demand in Western countries and low level of penetration of density of conventional insurance. Moreover, the Muslim population in Europe is around 15 million and thus, they are the potential markets for Takaful. In addition, Takaful can be introduced if the Muslim population is 10 to 15% of the total population in the non-Muslim countries and then it can attract the non-Muslims later. Takaful products are ethical and hence, it can be accepted regardless of the religion (Alamasi, 2010; Maysami & Kwon, 1999; Ali (n. d.).

Although the Takaful industry has much potential, it does not mean that there is no challenge. Prior researchers have highlighted the possible challenges of the Takaful industry and some of them are uneasiness to compete with the well-established conventional insurance and reinsurance companies, limited experience and competent human resource, not having a framework for corporate governance, *Shari'ah* compliance, legal and regulatory, taxation and international accounting standards which suit with the Takaful industry, need heavy investment in research and development to innovate Takaful products which are competitive with conventional insurance products, limited number of *Shari'ah* advisors and industrial experts, limited number of Re-Takaful operators to support the Takaful industry, low level of awareness of Takaful and limited *Shari'ah* compliant investment (Hanif, 2014; Ahmad et al., 2010; Alamasi, 2010; Maysami & Kwon, 1999).

In sum, the prospect of *Takaful* is tremendous due to the raising of oil prices, awareness of *Takaful* among the educated Muslims in non-Muslim countries, acceptability of *Takaful* by non-Muslims and the population of the Muslims all over the world. It is also necessary for the *Takaful* operators to overcome the challenges.

#### 4. Conclusion and Area for Future Research

This paper has provided the contemporary findings by the prior researchers. It can be summed that Takaful concept can be used for the profit and non-profit oriented entities. Takaful operators should have proper risk management system and performance assessment. To attract the investors and to gain their confidence, financial reporting should not be ignored and compliance with the prevailing standards is mandatory. In the case of market, awareness is very important and hence, marketing will play an important role for the success of the industry. Finally, this paper discusses the prospects and challenges of the Takaful operators.

Most of the prior research has raised the issues however, proper solution is not mentioned. Hence, the regulators should play the role to lead the research projects, survey and discuss with the industrial players and *Shari'ah* advisors to come out with new regulations or modify the existing ones to cater the current issues in Takaful industry.

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# Investigating the Effects of Involvement on Consumer Decision Process

Seyed Fathollah Amiri Aghdaie<sup>1</sup>, Farhad sanaei<sup>2</sup> & Ali Akbar Abedi sharabiany<sup>1</sup>

Correspondence: Seyed Fathollah Amiri Aghdaie, Departement Of management, University of Isfahan, HezarJarib, St. Darvazeh Shiraz, Isfahan, Iran. Tel: 98-311-793-5251. E-mail: s.aghdaie@ase.ui.ac.ir

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#### **Abstract**

The purpose of this study is to examine the effect of involvement on the consumer decision process. In this study, involvement includes individual, social, and behavioral factors. The statistical population of this study includes the customers that have purchased from BALL chain stores in the city of Isfahan in 2013. A sample of 300 customers has been selected for survey through random sampling method. Data-collecting instrument is a questionnaire. The results of this study indicate that there are significant positive relationships between involvement and consumer decision process. Also significant positive relationships have been observed between personal and behavioral factors with consumer decision process, but any significant relationship has not been observed between social factors and consumer decision process. The results of this study help the marketers to understand the consumers' behaviors so that implement appropriate strategies for their products and help their company to achieve its goals and survive in the nowadays competitive world.

Keywords: involvement, consumer decision process, consumer behavior

# 1. Introduction

Growth and development of markets in the nowadays competitive world leads to supply different products in the markets. The marketing managers need to develop strategies and provide marketing opportunities in order to deliver these products to their customers. In order to this, recognizing consumer behavior especially in purchase decision has effective role in promoting these strategies. The customers and buyers decision process for cheaper and everyday products is simple, but they should decide seriously for buying the expensive products which requires complex decision making process (Kotler, 1988). This process consists of five steps that includes recognizing need and identifying problem, exploring information, evaluating alternatives, purchasing, and after purchase behavior (Miniard et al., 1993; Puccinelli et al., 2009). The consumer facing different environmental factors in every step that includes (1) goals, schema, and information processing, (2) memory, (3) involvement, (4) attitudes, (5) affect, (6) atmospherics, and (7) consumer attributions and choices. (Puccinelli et al., 2009). The involvement is one of the important factors in the consumer buying decision (Goldsmith, 2002; Maoz & Tybout, 2002; Mittal, 2004; Sengupta & Fitzsimons, 2004; Shamdasani et al., 2001). Involvement is defined as an invisible mode of motivation, internal mobility, and interest (Rothschild, 1984) and refers to the extent that consumers interest on the products information (Zaichkowsky, 1985). The authors investigate the involvement in three sets including situational involvement, sustainable involvement, and responding the involvement. Situational involvement refers that the consumers concentrate on the impersonal factors about the objects and things that there are in a particular situation. Sustainable involvement refers to attracting the consumer's attention to the things and objects that are related to long term periods and also concentrate on the personal characteristics. Finally, responding the involvement refers to the mental condition that combine the situational and sustainable factors and then reflect as consumer decision process that is based on the cognitive and behavioral processes (Houston, Michael, & Rothschild, 1978).

Zaichkowsky (1986) divide the involvement factors into three sets that include personal, motivational, and situational factors. The personal factors are about the needs, interests, and values of a particular subject. The motivational factors are related to the stimulus characteristics such as solutions differences, communications resources, and communications extent. The situational factors are related to the product purchase situations that

<sup>&</sup>lt;sup>1</sup> Departement Of management, University of Isfahan, HezarJarib, St. Darvazeh Shiraz, Isfahan, Iran

<sup>&</sup>lt;sup>2</sup> Department of management Payam-e-noor University, Varamin, Iran

lead to involvement. For example, the consumer attends the advertisements about car more than other products advertisements if he/she decides to buy a car. Zaykoski (1986) believes that each of the factors is related to the different involvements such as product, product purchase, and advertisements (Zaichkowsky, 1986).

Therefore, the purpose of this study is to examine the effect of involvement on the consumer decision process. Several studies have been done about involvement independently, but this study seeks to examine the involvement from three dimensions including personal, social, and behavioral factors. Each of these dimensions consists of different factors. For example, jealously is one of the social factors dimensions that has been examined in the social factors hypotheses. All in all, 17 factors are derived from these three factors that all of them have been examined in three secondary hypotheses.

# 2. Conceptual Framework and Hypotheses

#### 2.1 Consumer Decision Process

Engel et al. (1968) developed the EKB model. This model assumes that the consumer decision process has a continuous process that leads to problem solving (Lin, & Chen, 2006). Engel et al. (1993) report that, the center concept of the EKB model means consumer purchase decision processing, which is also problem-solving processing to consumer decision processing and includes five stages: demand confirmation, search for information, evaluation of alternatives, purchasing, and purchasing result.

The purchase type is effective in involvement. Involvement in the complex purchases situations is high, because these purchases force the consumers to acquire more information about product and then decrease their perceived risks (Grant, Clarke, & Kyriazis, 2010). The buyers pass a process with five steps in their purchases decision (especially in the complex situation) so that purchase the product. The buyers recognize their needs or problems in the first step. They use different resources for acquiring information (such as personal, commercial, public, and empirical resources). They also evaluate the information in the third step. A purchase is done in the fourth step. Finally, the buyer or consumer may satisfy or dissatisfy with his/her purchase in the fifth step (Kotler, 1988).

#### 2.2 Consumer Behavior and Involvement

It is not easy to understand the consumer behavior and customer recognition. The customers may express their needs and wants in a way and do in another way. They may do not understand their main motivations or respond the effective factors that can change their attitudes in the purchase time. Regardless of this, the marketers should examine their customers' wants, perceptions, purchase, and after purchase behaviors (Kotler, 1988). In the consumer behavior frame, involvement is a step that involve in different aspects that are related to the products, advertisements, and purchase (Zaichkowsky, 1986; Broderick & Mueller, 1999). The empirical evidences show that the involvement level is indicator of the consumers' behavior diagram (Josiam, Kinley, & Kim, 2005). High involvement in a product leads to high motivation in the consumer purchase behavior (Lianga, 2012) and also the product involvement has significant positive relationship with customer purchase decision (Lin, & Chen, 2006). There are different factors that may have role in the consumer decision making. These include personal, social, and behavioral factors that can be examined in three hypotheses.

# H1: involvement influences the consumer purchase process.

**Personal factors:** individuals' decision is influenced by their personal characteristics. These characteristics include buyer age, life cycle, occupation, income, educational level, personality, and personal perception. The young consumers' needs and wants are different from old ones and also involvement is more among young consumers than elders (Ocass, 2000). On the other hand, women's purchase is different from men's purchase in terms of conventional modes costs (Pentecost & Andrews, 2010). The female consumers with low income are involved in common purchases and have not high loyalty to the household products (Gbadamosi, 2009). The educated consumers' preferred products and purchase are completely different from illiterate ones.

# H1-1: the personal factors influence the consumer purchase decisions positively.

**Social factors:** the consumer behavior is influenced by different social factors such as reference groups, family, role, and status. The social influences are effective in the product involvement and also involvement level is influenced by social factors (Kuenzel & Musters, 2007). Family members also influence each other's purchase perspective. The reference groups are effective in choosing the product such as relatives, friends, social organizations, and professional institutes. The customers that have high involvement with a particular product seek to purchase their products from which centers that offer them more information about the product (Kim, Kim, & Park, 2010). Also because there are different alternatives for their choices and they have less time to evaluate their choices, they may listen to the opinion leader's viewpoints and also consider their attitudes and

preferences in the purchase (Tammy, Bharath, & Lockett, 2010, Tejavibulya & Eiamkanchanalai, 2011). Everyone's position in every group depends on his/her social status. Buyer choices which products and services for purchasing that can reflect their social status and position. Additionally, some consumers (especially women) may do not attend the modes and also the empirical findings indicate that female consumers have high involvement in the dress modes than male ones (Ocass, 2000). Samz et al. indicate that involvement is a good predictor of the lox modes (Summers, Belleau, & Xu, 2006) and also jealously may actuates the consumers toward buying different products.

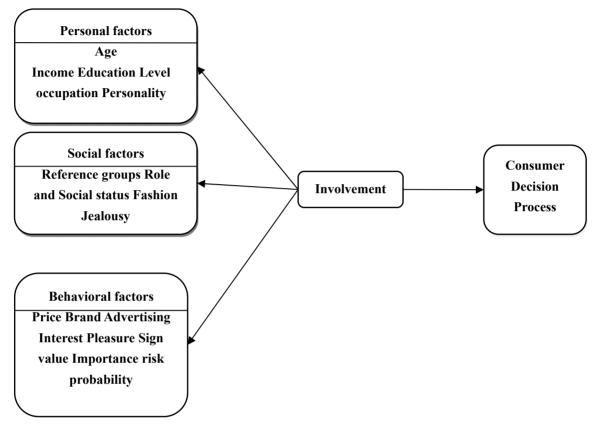


Figure 1. Conceptual model

#### H1-2: the social factors influence the consumer purchase process positively.

Behavioral factors: the individual's choice is influenced by four psychological factors that include motivation, perception, learning, and believes (Kotler, 1988). Each of these factors entered to the black box for different analysis. Also an individual's purchase behavior is the results of complex and mutual effect of social, cultural, personal, and mental factors. From psychological perspective, product price influences purchase type and tendency and also it has effective role in the product involvement. This means that the consumer's involvement is more in the higher price products than lower price ones (Laurent & Kapferer, 1985; Traylor & Joseph, 1984). The advertisement strategies depend on the consumer's involvement level in every product class (Laurent, & Kapferer, 1985; Ray, 1982; Rothschild, 1979; Vaughn, 1980). The empirical findings indicate that the factors such as attitudes and brand loyalty have effective role in creating involvement in product choice (Foxall, Goldsmith, & Brown, 1998). A brand value and involvement in the product purchase is effective in the product evaluation by consumer (Parkvithee & Miranda, 2012). The involvement level can be related to the media type and the consumer's behaviors in the purchase decision (Josiam, Kinley, & Kim, 2005; Huang, Chou, & Lin, 2010). A product involvement is sustainable and also is related to the personal factors, needs, interests, and its values (Marshall & Bell, 2004).

Kapferer and Laurent (1985) developed the customer involvement profile (CIP) measure using five similar dimensions:

1) Interest: the personal interest an individual has in an object.

- 2) Pleasure: the hedonic or emotional appeal or pleasure an individual derives from an object.
- 3) Sign value: the extent to which an object reflects or expresses the individuals self.
- 4) Importance risk: the perceived importance of the negative consequences of making a bad purchase.
- 5) Risk probability: the perceived probability of making a bad purchase.

# H1-3: the behavioral factors influence the consumer purchase decision positively.

#### 3. Data and Results

#### 3.1 Data-collecting Instrument

The statistical population of this study includes the customers that have purchased from BALL chain stores in the city of Isfahan. In order to calculate the sample size, Kokran table of sampling has been used. A sample of 30 customers was selected for this study randomly and then a questionnaire has been used to select the data. These questionnaires have been distributed among the customers and 277 of them were indicated by them. This questionnaire includes three sections that were developed based on the Likert five-point scale in which 1 is strongly disagreeing and 5 is strongly agree. The first section of this questionnaire includes several questions about involvement. This includes personal, social, and behavioral factors that each of them consists of different sub-factors. The second section is about consumer decision process (CDP). The SPSS20 and AMOS are the statistical software that used for analyzing the data.

#### 3.2 Reliability and Validity of the Questionnaire

**Content validity**: because the questionnaire has been developed based on the literature and previous studies review and also because it has been reviewed and modified by academic experts, its validity is confirmed.

Table 1. Cronbach's alpha coefficient

Variables	Cronbach's alpha coefficient	
Personal factors	0.83	
Social factors	0.72	
Behavioral factors	0. 88	
CDP	0.91	
Total	0.85	

**Reliability**: the most common test for examining reliability of the questionnaire is Cronbach's Alpha coefficient. This coefficient unusually is used for the questions with multi-scale classes. In order to measure the questionnaire reliability, Cronbach's Alpha has been used that its coefficient is 0.81. Also this coefficient is 0.83 for personal factors, 0.72 for social factors, and 0.88 for behavioral factors (Table 1).

#### 3.3 Measuring Instrument

**Personal factors**: these include age (Ocass, 2000), income (Pentecost & Andrews, 2010; Gbadamosi, 2009), educational level, occupation, and personality. These criterions were asked through five questions in Likert five-point scale.

**Social factors**: these factors were measured through four sub-factors. Reference groups or opinion leaders (Tammy, Bharath, & Fallon, 2010; Tejavibulya & Eiamkanchanalai, 2011), social role and status, mode (Summers, Belleau, & Xu, 2006; Ocass, 2000), and jealously are the social factors that have been examined in our study. Each of these factors has been measured through a question.

**Behavioral factors**: these factors have been examined through eight criterions. Three of these factors include product price, brand, and advertisement (Foxall et al., 1998; Laurent & Kapferer, 1985; Traylor & Joseph, 1984; Ray, 1982; Vaughn, 1980; Josiam, Kinley, & Kim, 2005). The five remaining factors have been adopted from Laurent and Copfer (1985) study that includes interest, pleasure, sign, risk importance, and risk probability. All of these variables have been examined through eight questions in the Likert five-point scale.

#### 4. Results

**Descriptive findings and correlation coefficient:** the descriptive findings of this study and also correlation coefficients are resulted from SPSS20.

The descriptive findings in terms of respondents' demographics have been indicated in the Table 2. These

demographics include age and gender. As the findings indicate, 56.8% of the respondents were male and 43.2% of them were female. Also the respondents with 15-25 years old are the main respondent groups that are surveyed in our study.

Table 2. Statistical description of the demographic characteristics of respondents

Descriptive	Statistics		Frequency	Percent
	d	male	155	56.80
	gender	female	118	43.20
Valid		15-25	134	49.10
	age	25-35	125	45.78
	_	35-50	14	5.12
Total			273	100

Table 3. Pearson correlations between variables of behavioral factors<sup>a</sup> and descriptive statistics

	Mean	S.D.	Var.	SKEW	1	2	3	4	5
1. Personal factors	3.9	0.5	0.25	-0.15	1				
2. Social factors	3.1	0.59	0.35	-0.179	0.25**	1			
3. Behavioral factors	3.4	0.42	0.18	0.34	0.10	$0.15^{*}$	1		
4. Involvement	3.4	0.35	0.13	0.3	0.34**	0.225**	0.31**	1	
5. CDP	3.8	0.49	0.24	127	0.34**	0.63**	0.65**	0.80**	1

<sup>\*</sup>p < 0.05; \*\*p < 0.01.

Table 4. Pearson correlations between variables of personal factors<sup>a</sup> and descriptive statistics

	Mean	S.D.	Var.	SKEW	1	2	3	4	5	6
1. Age	4.58	0.73	0.54	-2.5	1					
2. Income	4.62	0.71	0.50	-2.28	0.12	1				
3. Education Level	3.11	1.02	1.04	-0.35	-0.12	0.25**	1			
4. occupation	3.53	1.11	1.23	-0.25	0.18**	$0.15^{*}$	0.19**	1		
5. Personality	3.94	0.90	0.81	-0.99	0.08	-0.03	0.20**	0.26**	1	
6. CDP	3.8	0.49	0.24	127	0.16**	0.16**	0.036	0.08	0.28**	1

p < 0.05; \*\*p < 0.01.

Table 5. Pearson correlations between variables of social factors<sup>a</sup> and descriptive statistics

	Mean	S.D.	Var.	SKEW	1	2	3	4	5
1. Reference groups	3.4	0.97	0.95	-0.78	1				
2. Role and Social status	3.7	0.91	0.83	-0.67	0.29**	1			
3. Fashion	3.4	1.0	1.17	-0.65	-0.01	0.01	1		
4. Jealousy	2.1	1.12	1.27	0.7	-0.01	0.06	0.29**	1	
5. Consumer Decision Process	3.8	0.49	0.24	127	0.12*	0.09	-0.02	0.04	1

<sup>\*</sup>p < 0.05; \*\*p < 0.01.

In order to analyze the effect of the independent factors on the dependent factors, it is necessary to calculate the relationships between them. Correlation coefficient was used for this purpose. The results of correlation coefficient indicate that there are significant relationships between all of the variables except the relationship between behavioral and personal factors (p<0.01, p<0.05). Also the results indicate that there are significant

a: The counted sample number in statistics is 273. S.D.=standard deviation. Var.= variance. SKEW=skewness.

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relationships between involvement, social factors, behavioral factors, and consumer decision process (p<0.01). These results are indicated in the table 3. Also table 4 shows the correlations between personal factors components. Based on this table, all of the relationships were confirmed except educational level and occupation (p<0.01). On the other hand, table 5 shows the correlations between social factors components and only the correlation with reference groups is confirmed. Table 6 shows the correlations between behavioral factors components this Table indicates that the correlations between components and consumer decision process is significant only between price, risk importance, and risk probability (p<0.01, p<0.05).

**Fitness criterions and examining the relationship between factors:** the fit criterions have been resulted from AMOS.

Table 6. Pearson correlations between variables of behavioral factors<sup>a</sup> and descriptive statistics

	Mean	S.D.	Var.	SKEW	1	2	3	4	5	6	7	8	9
1. Price	2.5	1.17	1.38	0.65	1								
2. Brand	2.5	1.08	1.18	0.51	0.22**	1							
3.Advertising	3.03	1.08	1.19	-0.85	0.08	0.06	1						
4. Interest	4.0	0.60	0.35	-0.85	0.09	0.41**	-0.01	1					
5. Pleasure	4.2	0.65	0.42	-0.88	0.04	0.26**	-0.18**	.34**	1				
6. Sign value	3.8	0.82	0.67	-0.57	0.01	0.13*	0.04	0.31**	0.28**	1			
7. Importance risk	4.1	1.1	1.1	-1.19	0.09	-0.01	0.12	0.288**	0.09	0.16**	1		
8. Risk probability	3.01	1.25	1.56	0.02	0.11	0.13*	0.02	-0.020	0.011	-0.22**	-0.24**	1	
9. CDP	3.8	0.49	0.25	-0.15	0.11	0.18**	0.15*	0.20**	0.13*	0.33**	0.07	0.07	1

p < 0.05; \*\*p < 0.01.

Table 7. The overall fit index the comprehensive model of research

Goodness-of-fit indices	Reference value	Construct
$/df 2\chi$	/df<5 2χ	3.359
0.988	GFI>0/90	GFI
0.941	AGFI>0/90	AGFI
0.093	RMSEA<0/1	RMSEA
0.940	CFI>0/90	CFI
0.920	NFI>0/90	NFI
0.943	IFI>0/90	IFI

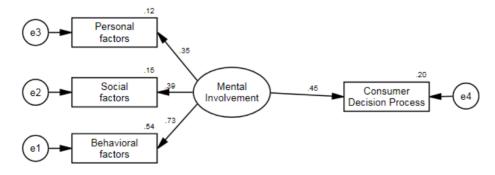


Figure 2. Measurement model of research

The fitness criterions are the most important steps in the analysis of structural equation modeling. These criterions are used to answer the question that whether the model is confirmed by the collected data or not. These criterions have been indicated in the Table 7. As these results indicate, all of the fitness criterions are favorable and show that the model is a good one.

a: The counted sample number in statistics is 273. S.D.=standard deviation. Var.= variance. SKEW=skewness

Also the structural equation modeling and confirmatory factor analysis have been shown for research variables. The Beta coefficient in the modified model indicates that the involvement effect on the consumer purchase process is 0.45. This means that 45% of the consumer purchase process variances are explainable by consumer involvement (Figure 2).

**Examining the relationship between variables:** the AMOS outputs in the modified model show that sig is 0.01 and this indicates that the main hypothesis about the effect of involvement on the consumer decision process is confirmed. These results have been indicated in the Table 8.

Table 8. AMOS output for the modified model

	Path main hypothesis	Standard estimate	Standard error	Ratio critical	Sig.
Mental involvement	Consumer Decision Process	0.451	0.148	3.667	0.00

Also the effect of involvement components on the consumer decision process is examined in the Figure 3. The AMOS outputs that are indicated in the table 9 show that sig is 0.002 and this indicates that the behavioral factors influence the consumer decision making. Therefore, the firth and third hypotheses have been confirmed. Also it is should be remembered about second hypothesis that the significant level of social factors effect on the consumer decision process is more than 0.05 and this indicates that social factors does not influence the consumer decision process. So the second hypothesis is not confirmed.

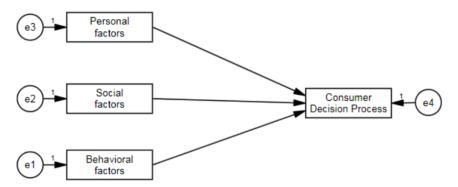


Figure 3. Mental involvement dimensions on the consumer decision process

Table 9. AMOS output for sub hypothesis

	Path sub-hypotheses	Sig.
Personal Consumer Decision Process	factors	0.002
Social Consumer Decision Process	factors	0.658
Behavioral Consumer Decision Process	factors	0.00

#### 5. Discussion and Conclusion

The present study seeks to examine the effect of involvement on the consumer decision process. In this study, involvement includes individual, social, and behavioral factors. The statistical population includes the customers that have purchased from BALL chain stores in the city of Isfahan in 2013. A sample of 300 customers has been selected for survey through random sampling method. Data-collecting instrument is a questionnaire. The results of correlation coefficient in the SPSS indicate that the age as one of the involvement factors influence the consumer purchase process positively and because the young respondents with 15-25 years old are the main respondent group in our study, it is resulted that involvement among young customers influence their purchase decisions more than old ones. These results are consistence with previous studies. On the other hand, the results indicate that the consumers' income is effective in creating involvement and so this factor has significant positive effect. In other words, if the consumers' income is high their purchases will be complex that has effect on their involvement and purchase decisions (Gbadamosi, 2009). Also the results indicate that the customers' personality characteristics have significant positive effect on their decision making process. Personality as set of the fixed behaviors in the human life can be effective in the individuals' involvement and purchase type. Other personality

factors such as educational level and occupation had not significant effect on the purchase decisions. Finally, the AMOS outputs indicate that the personality factors influence purchase process.

As indicated in the previous sections, social factors have been examined through several sub-factors such as reference groups, social role and status, mode, and jealously that only the effect of reference groups was significant. On the other hand, it is should be considered that because the consumers facing different classes of products in the market and also have not complete awareness about some of them, they listen to the opinion leaders' preferences and interest (Tammy, Bharath, & Lockett, 2010; Tejavibulya & Eiamkanchanalai, 2011). Also with respect to the effects of modes among different genders on creating involvement (Ocass, 2000), unfortunately it is not confirmed in our study. Also the results of regression analysis indicate that jealously is not confirmed in our study and finally the effect of social factors on the consumer decision process is not confirmed.

The results of behavioral factors indicate that some sub-factors such as brand and advertisement is effective in creating involvement type and purchase decisions and this is consistent with the previous results (Josiam, Kinley, & Kim, 2005; Huang, Chou, & Lin, 2010). These results indicate that if the customers' loyalty to a brand is high and the products advertisement is sustainable, then leads that the consumer or buyer considers brand and advertisement in his/her decision making process more than other factors. As a result, this involvement influences purchase process positively. Also the sing and value are the main factors that influence purchase process more than other factors in the consumer involvement profile. These factors indicate that how much the purchased product show the buyers' internal characteristics and the results of regression test indicate that behavioral factors influence the customers' decision making process positively.

This study confirms that involvement influences the consumers' decision making process positively and this result is consistent with previous findings (Lin & Chen, 2006). Regardless of this, our study has some limitations. The first limitation is that our study considers only three effective factors on involvement creation, but there are other different effective factors on the involvement creation such as cultural factors. The second limitation of this study is sample (chain stores customers) that may is not representative of the population. Therefore, it is suggested that the future studies concentrate on the other effective factors on involvement creation (such as cultural factors) and identify and consider them. Also if the future studies can be implemented at international level, it is possible to compare their results to acquire better results.

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**Appendix A**Table A1. Construct items, mean and standard deviation

Item			Meana	SD
	$\mathbf{X}_1$	When I want to buy a gift for my friend, I consider his/her age.	4.58	0.73
D 1 0 1	$X_2$	My income has effective role in my purchase decisions.	4.62	0.71
Personal factors (α=0.83)	$X_3$	My educational level leads more scrupulosity in my purchases.	3.11	1.02
	$X_4$	My occupation is effective in my purchases.	3.53	1.11
	$X_5$	I consider my personality characteristics in my purchases.	3.94	0.90
	$X_6$	My family, friends, and opinion leader's viewpoints have effective role in my purchases.	3.4	0.97
Social factors (α=0.72)	$X_7$	My social status and role among different group members have effect on my purchases.	3.7	0.91
	$X_8$	I attend the prevalent modes in my life environment.	3.4	1.0
	$X_9$	The jealously has effective role in my purchases.	2.1	1.12
	$X_{10}$	I spend more time for expensive products.	2.5	1.17
	$X_{11}$	I have much sensitivity and loyalty on my favorite brands.	2.5	1.08
	$X_{12}$	A product has effective role in my choices, if many advertisements have been done about it.	3.03	1.08
Behavioral factors	$X_{13}$	I consider some products important and more interesting than other ones. (source: Laurent and Kapferer, 1985)	4.0	0.60
(α=0.88)	$X_{14}$	I enjoy some products purchasing. (source: Laurent and Kapferer, 1985)	4.2	0.65
	$X_{15}$	The product that I purchase, show my internal characteristics relatively. (source: Laurent and Kapferer, 1985)	3.8	0.82
	$X_{16}$	It is uneasy for me to purchase a product that is defect or unsuitable for me. (source: Laurent and Kapferer, 1985)	4.1	1.1
	$X_{17}$	I do not my purchases with full confidence.	3.01	1.25
	$\mathbf{Y}_1$	The internal and external needs and motivations lead that I think about purchase.	3.74	0.868
	$Y_2$	I use different informational resources (such as friends) before purchase it.	3.93	0.94
<b>Consumer</b> Decision	$Y_3$	I evaluate different brands of a product.	3.74	1.01
Process (α=0.91)	$Y_4$	I consider other people's viewpoints during my purchase time.	3.64	0.94
	$\mathbf{Y}_{5}$	It may that some unpredicted situational factors influence my purchase decision and I cancel my purchase.	3.82	0.92
	$Y_6$	I think about product satisfaction after its purchase.	3.96	1.01

<sup>&</sup>lt;sup>a</sup> Scale was rated from 1 to 5.

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# The Development of MyGSP: An Online Resource for Teaching Mathematics Based on Geometer's Sketchpad (GSP)

Abdul Halim Abdullah<sup>1</sup>, Johari Surif<sup>1</sup>, Nor Hasniza Ibrahim<sup>1</sup>, Marlina Ali<sup>1</sup> & Mohd Hilmi Hamzah<sup>2</sup>

Correspondence: Abdul Halim Abdullah, Faculty of Education, Universiti Teknologi Malaysia, 81310 UTM Skudai, Malaysia. Tel: 60-13-374-0024. E-mail: halim\_aman@yahoo.com

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#### **Abstract**

MyGSP was developed following various constraints faced by teachers to integrate the Geometer's Sketchpad (GSP) software into mathematics lessons. Based on the Waterfall Design Model, the development of MyGSP started with the analysis of user needs through literature review and simple survey. From the analysis, three main constraints were identified: (1) insufficient time to prepare for GSP-aided lessons; (2) lack of training on GSP integration in lessons; and (3) lack of references for teaching mathematics using GSP. Therefore, taking into account the computer equipment currently available at schools, the researcher developed MyGSP to overcome these constraints. In the design phase, the researcher developed teaching materials for mathematics topics at secondary schools. Teaching strategies adopting higher order of thinking skills were applied in the teaching materials. Apart from this, video tutorials on GSP usage in teaching materials were also developed. In the implementation and unit testing phase, 30 pre-service Mathematics teachers participated by providing feedback on the materials developed. In the integration phase, the modules, i.e., Teaching Material Module, Download Module, Forum Module, and Video Tutorial Module, were combined into one system known as MyGSP. The MyGSP system was also updated and enhanced from time to time in the maintenance phase. It is hoped that MyGSP will be able to fulfill teachers' needs for integrating GSP into their classrooms.

**Keywords:** geometer's sketchpad, higher order thinking skills, GSP-aided lessons

#### 1. Introduction

Education technology is highly encouraged to be used for the purpose of teaching and learning Mathematics in classrooms. According to the Curriculum Development Division (Bahagian Pembangunan Kurikulum, BPK) of the Malaysian Ministry of Education (MOE, 2011), the use of technology is very much emphasised in teaching and learning mathematics to provide room and opportunity for students to explore and deepen their understanding on mathematical concepts. According to BPK (2011), the use of education technology including educational software can enhance a pedagogical approach and in turn increase the understanding of mathematical concepts. In the Malaysian education system, one of the education technologies introduced specifically in the Mathematics subject is the Geometer's Sketchpad (GSP) software. The use of this dynamic geometry software has been mentioned explicitly in the Discourse on Secondary School Mathematics Subject Syllabus as a method or an approach proposed to be included into teaching and learning activities to introduce various mathematics concepts (BPK, 2011). In the specification for secondary school mathematics curriculum for form 1 to form 5, 29.51% (18 topics) are proposed to be taught using dynamic geometry software such as GSP. MOE has gone the extra mile by obtaining a license to use the GSP software for teaching and learning purposes in Malaysia. At a global level, the National Council of Teachers of Mathematics (NCTM, 2002) has proposed the use of dynamic geometry software such as GSP to assist students in learning mathematics. NCTM fully supports the use of GSP in teaching and learning for students to expand their reasoning skills.

Many past studies have shown that the use of computer software, specifically the dynamic geometry software, has enabled students to harness their higher order thinking skills (HOTS) in mathematics. Choi-Koh (1999) and Nik Azis (2008), for instance, state that the environment for dynamic geometric software (1) enables students to expand their concrete mathematics experience to a more formal level, (2) encourages their enthusiasm to form conjecture, and (3) increases their mathematical thinking. This matter is supported by Norazah et al. (2010) and

<sup>&</sup>lt;sup>1</sup> Faculty of Education, Universiti Teknologi Malaysia, Skudai, Malaysia

<sup>&</sup>lt;sup>2</sup> Language Academy, Universiti Teknologi Malaysia, Skudai, Malaysia

Kerrigan (2002) who both emphasise that students' HOTS can be harnessed through exploratory learning and discussion using the GSP software. According to Newman (2000), the use of dynamic geometry software can increase students' desire to know, boost their intellect and challenge their intellectual capability. Besides, the features found in dynamic geometry software allow students to form conjecture. According to Manizade and Lundquist (2009), through involvement in activities based on dynamic geometry software, students will take part in mathematical thinking that will bring them to form their conjecture. Dynamic geometry software can help students to form and hold discourse on conjecture, which are the bases for generalising a certain pattern formed during exploration (Glass et al., 2001). This process can further motivate students to discuss whether the conjecture is true or not (Lange, 2002). Students might also find examples that contradict each other, and this will lead them to form new conjecture (Hirschorn & Thompson, 1996).

The ability of GSP to increase students' HOTS is seen as relevant today and is in line with approaches that emphasize HOTS in the Malaysian education system. HOTS are particularly relevant following Malaysian students' decline in international assessments namely Trends in International Mathematics and Science Study (TIMSS) and Programme for International Student Assessment (PISA) that assess the HOTS of students. According to MOE, teachers' lack of emphasis on HOTS has slowed down the implementation of Integrated Curriculum for Primary Schools (KBSR) and Integrated Curriculum for Secondary Schools (KBSM) in the classroom. It is also stated in the Malaysian Education Development Plan (2013-2025) that school leavers have to be equipped with HOTS in order to compete at a global level. Following this, the Teacher Education Division has prepared an outline for the implementation of HOTS in the classroom, in which changes in teaching approaches are particularly emphasized. In this context, the use of technology in the lesson can potentially harness the HOTS of students.

#### 2. Problem Background

A study by Hadi and Zainab (2012) shows that, although teachers may have high desire to use ICT in classrooms, lack of time can be a constraint for them to achieve this. The main reason for this is that ample time is needed for teachers to plan and execute technology-aided lessons in classrooms (Challoo & Weaver, 2007; Vrasidas et al., 2010; Becta, 2004). In Mathematics subject, although the GSP software is provided in schools and it is very much encouraged to use them in the teaching and learning process, past studies have shown that mathematics teachers do not use the GSP software due to several factors. One of the factors is limited opportunity to attend courses on the use of GSP. In the Malaysian education system, courses and workshops on the application of GSP software have been conducted for Mathematics teachers (Kedah Education Department, 2009; Kamawati, 2006). However, these courses do not require participation from all or the majority of secondary school Mathematics teachers in Malaysia. Agyei dan Voogt (2010), Ozden (2007), and Topracki (2006) agree that there is a lack of training opportunity available for teachers in integrating education technology into the classroom. According to Kalsom and Lim (2013), among the reasons for not using the GSP software include (i) lack of exposure on GSP usage, (ii) no exposure on GSP, (iii) no exposure from any party although one is rather interested in using it, and (iv) limited courses available on GSP.

Among teachers who have attended workshops or courses on GSP software usage, past studies have found that these teachers have not taken advantage of the GSP software provided. This is due to lack of resources to refer to on teaching Mathematics subject with the aid from the GSP software. According to Haslina et al. (2000), although teachers attend certain courses with hands-on activities included, the modules or manuals are not provided for participants' use after the workshop. Therefore, the other main reason is due to lack of references in using education technology including GSP software (Gomes, 2005; Shazia, 2000; Clarke, 2007; Ertmer & Otternbreit-Leftwich, 2010; Becta, 2004). Agyei and Voogt (2010) suggest that a user-friendly environment be built on education technology application for teachers' reference. However, according to Khalid (2009), access to reference sources on certain education technology can be improved through self-training on the Internet.

Based on the problems that prevent the usage of the GSP software among teachers, the researcher developed a mathematics teaching material for form one to form five in accordance to secondary school mathematics syllabus based on the GSP software. It is hoped that these teaching materials will be able to resolve problems faced by teachers and they can be used as a reference in the classroom.

# 3. Objectives of Study

- 1) To develop teaching materials based on GSP for form one to form five in Mathematics; and
- 2) To develop a MyGSP system that can organize the teaching materials developed.

#### 4. Methodology of the Study

As shown in Figure 1, the Waterfall Model was chosen as the model to develop MyGSP. This model was chosen because of the clear division of its components. There are five phases used in this model: (i) Needs Analysis; (ii) System Design; (iii) Execution and Unit Testing; (iv) Integration and Unit Testing; and (v) Operation and Maintenance.

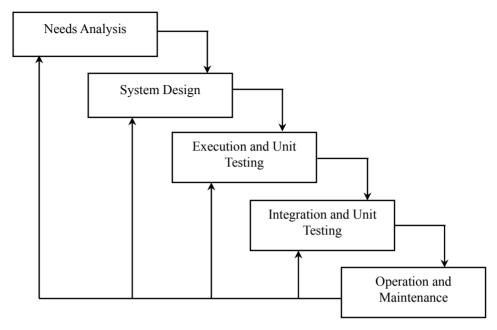


Figure 1. Waterfall design model

#### 4.1 Analysis Phase

The analysis on the main problems faced by teachers in using this GSP software in their lessons was done. The analysis was conducted through literature review and a simple survey carried out on 23 Mathematics teachers from MARA Junior Science College all over Malaysia. Based on the literature review, Figure 2 below reveals three main factors leading to the underuse of GSP software by teachers in teaching Mathematics.

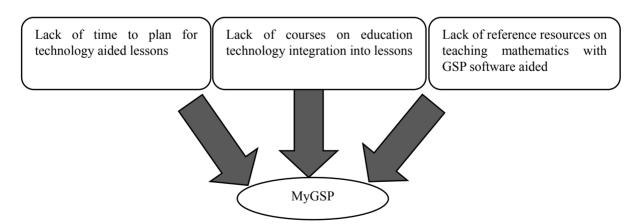


Figure 2. Three factors deterring teachers from using GSP

Besides, a simple survey was also carried out on Mathematics teachers from MARA Junior Science College to find out the level of GSP usage in teaching and learning Mathematics using an instrument adapted from a study by Norhana Aini (2008). As shown in Table 1, the findings of the study showed that the majority of teachers were at level 1 (non-use), i.e., 43.5%. Meanwhile, the lowest percentage was 0% for level 6 (renewal), indicating that none of the teachers was at this level.

Table 1. Level of GSP usage among teachers

Level	Description	Percentage
Level 0	Teacher has little knowledge on GSP usage in teaching and learning (T&L) Mathematics. However, the teacher is not involved in using it and has not done anything to be involved in its application.	43.5%
Level 1	Teacher actively searches and acquires information on the use of GSP in T&L Mathematics.	21.7%
Level 2	Teacher is ready to use GSP for the first time in T&L Mathematics.	13.0%
Level 3	Teacher pays attention to a short-term application of daily GSP usage with some time allocated for reflection. Teacher also works towards reinforcing it.	13.0%
Level 4	Teacher feels at ease using GSP. However, not much effort is put into it. Teacher barely considers increasing the application of GSP in T&L Mathematics.	4.3%
Level 5	Teacher cooperates with fellow teachers in carrying out relevant activities to increase the impact of GSP in the classroom.	4.3%
Level 6	Teacher re-evaluates the quality of GSP usage in T&L Mathematics, makes changes or finds alternatives to enable innovation to be presented in a way that can provide maximum impact, and explores new goals for the school.	0.0%

Table 2 shows the conclusion that can be made on the condition of equipment found at MARA Junior Science College (MRSM). The analysis showed that most schools were sufficiently equipped with facilities such as laptops, LCD (projectors) and screens.

Table 2. Current condition of school equipment

Equipment	Available	Unavailable	Broken	Unsure	Not enough
Laptop	21	0	0	1	1
LCD (projector)	14	3	0	1	3
Screen	14	3	0	1	2

Based on the finding from the needs analysis, most of the teachers were found to have insufficient time to plan and develop teaching materials that were GSP-aided. They also had a limited opportunity to attend courses on GSP usage in lessons. Besides, the lack of resources on GSP software was also the main constraint for teachers to use it in the classroom. A survey conducted through questionnaires also found that most teachers had little knowledge on the use of GSP in T&L of Mathematics. That is, they were not involved in its use and did nothing to take part in its usage. They were also searching for and acquiring information on the use of GSP in T&L of Mathematics. Therefore, the development of MyGSP has the potential to resolve constraints faced by teachers in using the GSP software in their lessons. In addition, most teachers also agreed that their schools had sufficient facilities such as laptops, LCD and screens, which were hoped to facilitate their GSP-aided lessons.

#### 4.2 Design Phase



Figure 3. User login

The second phase, which is design phase, involved producing modules to be included into MyGSP. This phase translated what was needed into something that can be seen physically. The purpose of this phase was to produce a system that fulfilled the needs. Among the modules involved in this system were Download Module, Teaching Material Module, Forum Module and Video Tutorial Module. Teaching Material Module consisted of explanations for the GSP-aided teaching activities prepared. However, users would not be able to download the available teaching materials until they have registered themselves, as shown in Figure 3.



Figure 4. Camtasia studio to develop video tutorials

Download Module allows registered users to download GSP-aided Mathematics teaching materials that are available in two formats namely .pdf and .doc. Teaching materials prepared using .pdf format allow users to directly use the materials in lessons. On the other hand, .doc format allows teachers to make changes to the materials according to the teachers' preference and suitability. The Download Module also contains a teaching material namely Introduction to GSP. According to Nik Azis (2008), the use of technology in the teaching and learning process comes with some pre-conditions; students need to have access to the required technology, understand the equipment, and have grasp of the main skills needed to be able to use it. Among the items found in the Introduction to GSP are drawing dots and lines, measuring length, labelling dots, lines and angles, and measuring angles. The Download Module also allows registered users to download video tutorials on GSP usage in teaching materials, other than allowing videos to be viewed online and through the Video Tutorial Module. According to Jamaluddin and Zaidatun (2005), the use of videos in lessons completes the process of delivering information and enables teachers and students to form deeper understanding of the material. The software used in the development of MyGSP is Camtasia Studio, as shown in Figure 4.

GSP-aided teaching materials are prepared by applying learning strategies that can generate students' HOTS. These strategies include discovery learning strategy, contextual learning strategy and forming conjecture learning strategy.

# 4.2.1 Discovery Learning Strategy

Discovery learning has long been proposed by MOE to be used in teaching Mathematics in secondary schools (Curriculum Development Division, 2011). According to BPK, such a teaching strategy is able to stimulate the teaching and learning environment in and out of the classroom. Discovery learning occurs when the main concept and principle are studied and discovered by the students on their own. According to Bruner (1966), the discovery occurs when students use their own mental process to obtain a concept or a principle. In other words, students are no longer being spoon-fed with the concept, principle, formula, etc.; instead, they make discovery on their own. According to Rooney (2012), teaching and learning based on discovery learning can induce the students' HOTS. This is due to the fact that the strategy involves a lot of processes related to students' HOTS, such as discovering and forming the conjecture (Aarnes & Knudtzon, 2003; Habre, 2009). This teaching method

has become easier and more effective with the aid of dynamic geometry software such as GSP (Reinhard, 2001). Studies by Olkun et al. (2005) and Guven (2012) have found that dynamic geometry software can be used by students to explore the relationships in mathematics. Van de Walle (2004) even adds that the students' skills in exploring the mathematical relationships using the dynamic geometry software cannot be achieved in other learning environments. On top of that, Olkun et al. (2005) found that students who were given problems to be solved using the dynamic geometry software were able to find more than one solution to the problems. Due to the effectiveness of discovery learning strategy in enhancing the students' HOTS, the strategy was applied in the development of the teaching materials in MyGSP.

#### 4.2.2 Contextual Learning Strategy

Contextual learning is a learning method that combines the content with the individual's everyday experience, community, and work environment. Contextual learning can also enhance students' HOTS (Berns, 2001). This type of learning provides a concrete learning involving hands-on and minds-on activities (BPK, 2009), and its implementation in the classroom is highly recommended (BPK, 2011). In contextual learning, students build their knowledge based on their past experience through the real-life context integrated in the teaching process (Wilkinson, 1999). Teaching using contextual approach is in line with the concept of mathematical questions in the PISA assessment. In this study, the questions provided in the assessment were adapted to suit the local context and focused more on the ability of students to apply in their lives about what they learn in school. Most of the questions in PISA required students to use their HOTS. Apart from that, a study by Gecua and Ozdener (2010) shows that the combination of the GSP software and digital photos depicting students' daily lives gives a positive effect on the students' knowledge retention and achievement. Therefore, GSP-aided contextual learning strategy was also applied in this study.

#### 4.2.3 Forming Conjecture Learning Strategy

Conjecture is a statement that has yet to be proven but appears true (Chazen & Houda, 1989). In mathematics, a conjecture is a statement that has not been proven or a theorem that appears true, and it is formed when the relationships observed by the students appear to be consistently true (Noraini, 2005). The students make generalisation based on what they observe in the data and patterns. The processes involved in this teaching strategy of conjecture formation include data observation by the students, patterns identification, and finally generalisation (Guven & Karatas, 2009; Shiang-tung & Feng-chu, 2008). The generalization is a statement made based on inductive reasoning, i.e., a general conclusion produced based on specific examples (Gillis, 2005). Activities that promote conjecture formation will stimulate the development of students' intellectual processes. Technologies such as dynamic geometry software enable students to form conjecture and to test the conjecture. According to Glass et al. (2001), Abdullah and Effandi (2012), dynamic geometry software can help students develop conjecture and argue about the conjecture that is actually the basis of the generalization of a pattern formed during discovery. This process then motivates students to discuss whether the conjecture is true or not (Lange, 2002). It is also possible for students to find contradicting examples that lead to the formation of a new conjecture (Hirschorn & Thompson, 1996). Through involvement in activities based on technologies such as the dynamic geometry software, students will engage in mathematical thinking that leads to their conjecture formation (Manizade & Lundquist, 2009; Abdullah & Effandi, 2012). According to Guven and Karatas (2009), Abdullah and Effandi (2013), the dragging option in the dynamic geometry software allows students to investigate a conjecture faster and more easily.

Table 3 shows some examples of application of three learning strategies in the teaching materials.

The purpose of Forum Module is for teachers to discuss their experience using the teaching materials developed and provided in MyGSP. Besides that, the Forum Module can be a platform for teachers to provide feedback regarding the teaching materials in MyGSP. Any constructive feedback will be evaluated to improve the program further in the future.

# 4.3 Implementation and Unit Testing Phase

The teaching materials developed were shown to a group of 30 pre-service teachers who were taking the Degree in Mathematics Education. As shown in Table 4, the first section of the survey asked the pre-service teachers to evaluate the effectiveness of the GSP software. The overall mean value for the first section was 3.94.

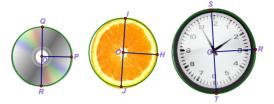
The second section of the survey asked the pre-service teachers' perception towards the GSP-based teaching materials developed. The overall mean value for this section was 3.96. According to Table 5, items with the highest mean values in this section were item 7 and item 9.

Table 3. Application of learning strategies in the teaching materials

Learning strategy Examples of GSP-aided activities developed

# Finding the Pi value $(\pi)$

Students are asked to search for images of a CD, an orange, and a clock using Google Image. Right-click on the image chosen, choose 'Save image', and save it on the Desktop. Students are asked to drag the images of the CD, orange, and clock from the Desktop to the readily opened GSP program.



# Discovery Learning

In the GSP environment, students are asked to obtain the circumference and diameter of the objects and calculate the circumference to diameter ratio of the objects.

			Ratio
Object	Circumference (cm)	Diameter (cm)	$(\frac{\textit{Circumferemce}}{\textit{Diameter}})$
CD			
Orange			
Clock			

State the conclusion that can be made based on the ratios obtained.

# **Understanding the Concept of Loci in Two Dimensions**

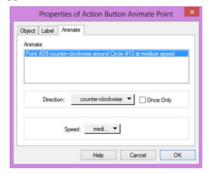
Observe the following picture:



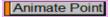
How do you determine the locus of rotation for the merry-go-round?

Contextual Learning

Using GSP, students are asked to develop a locus of one fixed point. First, students need to draw a circle and draw a point on its circumference. Click on the point and click on the *Dropdown menu list-Edit* and click on *Animation*. A dialogue box of *Properties of Action Button Animate Point* will appear.



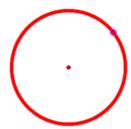
To make the point move, click on the button Animate Point.



#### Learning strategy

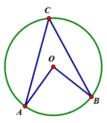
# Examples of GSP-aided activities developed

Click on the moving point and click on the *Dropdown menu list-Display* and *Trace Point*. Students will see that the locus formed from the moving point has a constant distance from the fixed point.



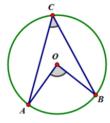
# Finding the relationship between an angle at the centre and the angle at the circumference subtended by the same arc length

Using GSP, students draw a circle. On the circle, draw three points anywhere on the circumference. Connect the points and the centre of the circle to form chords and radius.



Find the value of angle AOB and ACB.

# Forming Conjecture



Students then click on the values for all angles, go to *Drop-Down Menu*, *Number* and choose *Tabulate*. A table that shows values for angles AOB and ACB will be formed.

Click twice on the values in the table, then move any point on the circle and watch the values of angles produced. Repeat the process until several values of angles AOB and ACB are obtained.

m∠AOB	m∠ACB
87.61°	43.81°
87.61°	43.81°
118.07°	59.03°
118.07°	59.03°

What is your conclusion on the relationship between the angle at the centre and the angle at the circumference subtended by arcs of the same length?

Table 4. The perception of pre-service teachers towards the GSP software

	Item		SD D		NS		A		SA		Min	
	nem	n	%	n	%	n	%	n	%	n	%	IVIIII
1	This GSP software is easy to learn.	1	3.33	0	0	2	6.67	20	66.67	7	23.33	4.17
2	The use of GSP can encourage students to perform activities actively.	0	0	1	3.33	4	13.33	19	63.33	6	20.00	4.00
3	This GSP is suitable for students of all backgrounds.	0	0	3	10.00	7	23.33	17	56.67	3	10.00	3.67
4	This GSP is suitable for teachers of all backgrounds.	1	3.33	0	0	5	16.67	20	66.67	4	13.33	3.87
5	GSP is very useful as a teaching aid in KBSM Mathematics.	0	0	1	3.33	2	6.67	19	63.33	8	26.67	4.13
6	The use of GSP as ABM is very effective in the students' learning process.	0	0	0	0	5	16.67	18	60.00	7	23.33	4.07
7	GSP is able to help students understand the concept of Mathematics better.	0	0	3	10.00	6	20.00	18	60.00	3	10.00	3.70

<sup>\*</sup>SD=Strongly Disagree, D=Disagree, NS=Not Sure, A=Agree, SA=Strongly Agree

Table 5. The perception of pre-service teachers towards teaching materials

	T	SI	)	D		NS		A		SA		3.6
	Item	n	%	n	%	n	%	n	%	n	%	Min
1	KBSM learning objectives are practical and can be achieved using GSP.	0	0	0	0	7	23.33	19	63.33	4	13.33	3.90
2	The GSP-based teaching materials developed are in line with the KBSM Mathematics syllabus.	0	0	0	0	8	26.67	17	56.67	5	16.67	3.90
3	The objectives of teaching sources cover multiple levels of students' thinking skills.	0	0	1	3.33	5	16.67	22	73.33	2	6.67	3.87
4	The statement of objectives is clear and easy to understand.	0	0	0	0	2	6.67	24	80	4	13.33	4.07
5	The activities provided can help students master a mathematical concept.	0	0	1	3.33	5	16.67	22	73.33	2	6.67	3.83
6	These teaching materials can create a fun learning environment.	2	6.67	0	0	4	13.33	15	50	9	30	3.97
7	These teaching materials are suitable for teaching and learning.	0	0	1	3.33	1	3.33	16	53.33	12	40	4.30
8	These teaching materials can stimulate the students' HOTS.	1	3.33	2	6.67	10	33.33	12	40	5	16.67	3.60
9	Students can collect data from the activities provided in the teaching materials.	0	0	0	0	2	6.67	18	60	10	33.33	4.23
10	Students can see the data pattern through the activities in the teaching materials.	0	0	0	0	6	20	16	53.33	8	26.67	4.07
11	Students can make generalisation based on the data obtained.	0	0	1	3.33	9	30	13	43.33	7	23.33	3.87

<sup>\*</sup>SD=Strongly Disagree, D=Disagree, NS=Not Sure, A=Agree, SA=Strongly Agree

The third section asked the perception of pre-service teachers towards the technical aspects in the GSP-aided teaching materials developed. The overall mean value for this section was 4.03. The item with the highest mean value was item 3, which stated that the activities in these teaching materials are easy to follow.

Table 6. The perception of pre-service teachers towards the technical aspects

	Item	TD D			NS	5	A		TA		Min	
	nem	n	%	n	%	n	%	n	%	n	%	IVIIII
1	The illustrations and explanations of the teaching materials developed are clear and easy to understand.	0	0	2	6.67	1	3.33	21	70	6	20	4.03
2	The language used is clear and easy to understand.	0	0	0	0	2	6.67	22	73.33	6	20	4.13
3	The steps for the activities in these teaching materials are easy to follow.	0	0	0	0	1	3.33	22	73.33	7	23.33	4.20
4	The video prepared is easy to follow.	0	0	0	0	3	10	22	73.33	5	16.67	4.07
5	The video instruction for GSP is easy to understand.	0	0	0	0	0	0	25	83.33	5	16.67	4.17
6	The GSP teaching materials come with complete instructions and guide on how to use them.	0	0	0	0	3	10	20	66.67	7	23.33	4.13
7	The instructions provided in the teaching materials are clear and sufficient.	0	0	0	0	2	6.67	23	76.67	5	16.67	4.10
8	The teaching materials use font types and font sizes that are clear and easy to read.	0	0	0	0	5	16.67	19	63.33	6	20	4.03
9	The colours used in the teaching materials are suitable and effective.	2	6.67	0	0	2	6.67	21	70	5	16.67	3.90
10	The audio used is clear and appropriate (it does not disturb the students' attention).	2	6.67	1	3.33	6	20	19	63.33	2	6.67	3.60
11	The flow of information in the teaching materials is easy to follow.	1	3.33	1	3.33	1	3.33	24	80	3	10	3.90
12	The use of images really helps in understanding the teaching materials.	0	0	0	0	1	3.33	24	80	5	16.67	4.13
13	The size of images used in the teaching materials is appropriate.	0	0	0	0	4	13.33	22	73.33	4	13.33	4.00
14	The answer space provided in the teaching materials is appropriate.	0	0	0	0	3	10	23	76.67	4	13.33	4.03
15	The tables provided are appropriate for the students to fill in the data obtained.	0	0	0	0	1	3.33	25	83.33	4	13.33	4.10

<sup>\*</sup>SD=Strongly Disagree, D=Disagree, NS=Not Sure, A=Agree, SA=Strongly Agree

# 4.4 Integration and System Testing Phase

After all modules have been developed and tested, the researcher combined them in the integration phases to form the real system. Joomla! was used as the platform to combine all the modules. Joomla! is a type of Open Source Content Management System (CMS) that can be used for free to build a website. Figure 5 shows the interface of MyGSP system, which consists of seven main sections namely Home, Introduction, Syllabus, Teaching Materials, Download, Forum and Video Tutorial.

# 4.5 Maintenance Phase

This phase will be implemented if the system needs modification or if there is an addition of module into the system. In this phase, the comments and reports received from the users through the forum section or through the

direct e-mails to the developer will be reviewed, assessed and evaluated. Modification will be done according to users' needs and demands if it is deemed necessary.

The **Introduction** section explains the background of MyGSP system.

The **Syllabus** section provides the syllabus for Mathematics in secondary school from form one to form five.

The **Teaching Materials** section gives general explanation on the teaching materials provided. However, users must register to download.

The **Download** section allows registered users to download teaching materials in the forms of .pdf, .doc, and video tutorials.



The **Forum** section provides a platform for users to voice their opinions regarding the teaching materials developed and share their experience of using those materials.

The **Video Tutorial** section allows registered users to watch video instruction online on how to use GSP in teaching.

Figure 5. MyGSP system interface

#### 5. Discussion and Conclusion

In this study, MyGSP system was developed as a reference for Mathematics teachers to integrate the GSP software in their teaching process in order to harness the students' HOTS. As discussed earlier, in the implementation and unit testing phase, a total of 30 pre-service teachers were asked to answer a survey regarding the materials developed in MyGSP. In the first section, which asked their perception towards the GSP software, item 1 and 5 showed the highest mean values of 4.17 and 4.13, respectively? For item 1, majority of the Mathematics teachers agreed that the GSP software was easy to learn. This finding is similar with a study by Rahim (2002) who identified the teachers' perception towards the use of GSP that was integrated in the teaching programme for teachers in Canada. In his study, most future teachers stated that the GSP software was easy to use with regard to geometry, algebra and trigonometry. Awe (2007) adds that the low cost and the ease of use have made GSP increasingly popular among educators. For item 5, most teachers agreed that GSP was very suitable as a teaching aid in KBSM Mathematics. This finding matches the study by Stols (2007) who found that pre-service teachers agreed with the idea that GSP would be very useful in the geometry class. In addition, Rahim (2002) in his study on the use of GSP by pre-service teachers in the classroom found that most of them agreed that GSP would be very useful in various branches of mathematics such as trigonometry, geometry and algebra. In the second section, which asked their perception towards teaching materials, majority of the pre-service teachers thought that the teaching materials developed were very suitable for teaching and learning. According to Nor A'idah et al. (2010), it is important for pre-service teachers to learn about GSP. Early exposure on GSP among pre-service teachers enables them to strengthen their understanding and increase their confidence to use GSP in teaching. For item 9, most of the pre-service teachers thought that students could collect data from the activities provided by the learning materials. According to Chew (2009), this is due to the fact that the GSP software with a dynamic environment manipulation has three important attributes, which are as follows: (1) students can directly manipulate the mathematical objects that are presented on the screen; (2) the mathematical objects will stay logically related when they are drawn; and (3) students will feel directly involved with the objects that they manipulate or, in other words, they are actively learning in this kind of environment. In the technical aspects, majority of pre-service mathematics teachers agreed that the teaching materials are easy to follow. It is hoped that MyGSP that contains Mathematics teaching materials for form one until form five based on the GSP software, and applied various teaching strategies that have been proven to harness the students' HOTS can be benefited by teachers in their teaching and learning practices.

# Acknowledgments

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# Past Performance and Executive Compensation: Evidence from Indonesia

Salamah Wahyuni<sup>1</sup>

Correspondence: Salamah Wahyuni, Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia. E-mail: salamah.wahyuni@gmail.com

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#### Abstract

This research examine the pay-for-performance hypothesis by studying Indonesian firms during the global financial crisis. Controlling for some firm fundamental factors and industry, we find that there is strong evidence that past performance drives the compensation paid to executives. This paper also reveals that financial firms tend to compensate their executive higher than those of non-financial firms. State-owned firms compensate a higher salary for their directors and commissioners than those of privately owned firms. Pay-for-performance system might reduce the agency problem between managers and shareholders, on the other side; however, this system might also reinforce the incentive for managers to take risk which subsequently increases the degree of riskiness of firms.

Keywords: pay-for-performance, executive compensation, performance, Indonesia, financial firms

#### 1. Introduction

There have been so many explanations on the roots of the 2007/2008 global financial crisis. Some argue that excessive risk taking is one of aggravating factors in such crisis particularly in the financial industry. Arguably, the main reason for excessive risk taking behaviors is maximization of compensation. Managers and directors pursue tend to take risk, to increase firm value and ultimately to achieve their maximum compensation. This fact is a consequence of the pay-for-performance that has been widely implemented on the compensation system of firms' top management members.

Basically, the pay-for-performance hypothesis explains that a firm should reward its executives according to their performance (Bangoj et al., 2010) and should punish their bad performance (Shaw & Zhang, 2010). A number of studies have been attempting to examine the pay-for-performance hypothesis (Core et al., 1999; Geringer et al., 1999; Brunello et al., 2001; Kato et al., 2007; Bangoj et al., 2010, Shaw & Zhang, 2010; Ozkan, 2011). Mostly, those studies find evidences on pay-for-performance hypothesis. For instances, Kato et al. (2007), using a panel data of Korean firms, conclude that cash compensation of Korean executives is significantly related to stock market performance. Ozkan (2011) examines the link between CEO pay and performance using UK firms-level data. He finds significant effect, however the pay-performance elasticity for UK CEOs seems to be lower; more so for cash compensation. He also finds that longer tenure is associated with lower pay-performance sensitifity of option grants suggesting the entrenchment effect of CEO tenure.

This paper extends the literature on the determinants of executive compensation by studying Indonesian firms which the market value of capital market in this country is growing rapidly. More specifically, we test the pay-for-performance hypothesis controlling for some fundamental factors of firms and industry difference.

#### 2. Review of the Literature

It has been generally considered that executive compensation of firms should be based on performance to eliminate agency problem between managers and shareholders. Compensation is often seen as an instrument to align managerial interests (agents) with those of the shareholders (Bangoj et al., 2010). Design and implementation of compensation schemes can provide strong motivation for employees and then improve the performance of the company. Literature on executive compensation could be viewed from corporate governance perspective (Sapp, 2008; Conyon & He, 2011, Conyon et al., 2011) and agency problem perspective (Core et al., 1999). Comprehensively, Sun et al. (2010) summarize three major theories in explaining executive compensation.

<sup>&</sup>lt;sup>1</sup> Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia

The first one, the economic perspective, majorly based on the agency theory according to the seminal work of Jensen and Meckling (1976) argues that the separation of ownership and control in modern corporations demands close monitoring of managers' behavior by principals to protect shareholders' benefits. Related to executive compensation, the proponents of this theory suggest that to minimize agency problems resulted from the separation between ownership and management, firms could employ some governance mechanisms such as managerial stock ownership aligning the interests of managers and shareholders, and outcome-based incentive contracts that decrease managerial opportunism (Eisenhardt, 1989). The second one, from the sociology point of view, based on stewardship theory which contrary to the agency theory, contend that managers do not always act in self-interested ways and in a situation of conflict they often place the interest of their firms above their own interests (Zajac & Westphal, 2004). The third one, Institutional perspective, argues that incentive mechanisms should be designed based on institutional framework (Peng et al., 2009). Those three theories of executive compensation basically view the issue of executive compensation as a tool to how to align managerial interests and shareholder interests. It can be concluded that a good compensation system would lead managers to behave in line with shareholders' interests.

The pay-for-performance hypothesis argues that firm performance is the main measure to determine executive compensation. According to agency theory, pay-for-performance could be considered as a mechanism to align the managers-shareholders' interests. It has been introduced in finance literature a concept of delta, or pay-performance sensitivity. It measures the change in the value of executive/CEO wealth for a 1% change in stock price. Therefore, high-delta compensation reduces conflicts of interest between managers and shareholders by linking manager wealth to the value of the firm's stock (Jensen & Meckling, 1976).

Several empirical studies support the pay-for-performance hypothesis. Kato et al. (2007), using panel data of Korean firms, conclude that cash compensation of Korean executives is significantly related to stock market performance. They also conclude that executive pay-performance is driven by corporate governance reform efforts in Chaebol firms. Banghøj et al. (2010), focusing on privately held firms, test the determinants of executive compensation. They find that there is a weak relationship between performance and executive compensation. However, their finding indicate that two governance variables which are bored size and ownership concentration as well as executive characteristics such as skills, title and education significantly influence executive compensation. Ozkan (2011) examines the link between CEO pay and performance using UK firms-level data. He finds significant effect, however the pay-performance elasticity for UK CEOs seems to be lower; more so for cash compensation. A number of scholars have been expanding the measure of pay-for-performance by looking at corporate strategies as proxy of performance. Those who work on that issue argue that rather than using direct performance, more appropriate to use corporate strategies taken by executives such as risk taking strategy to determine their compensation (Dow & Raposo, 2005). For instances, DeYoung et al. (2009) examine whether and how the terms of CEO compensation contracts at large commercial banks in the US influenced, or were influenced by, the risky business policy decisions made by these firms. They find strong evidence that bank CEOs responded to contractual risk-taking incentives by taking more risk. Balsam et al. (2011) shows that there is an increased emphasis on sales in the determination of executive compensation for firms pursuing a cost leadership strategy, which seek to achieve their competitive advantage through low price and high volume. Yoshikawa et al. (2010), based on a sample of the 148 largest industrial firms in Japan for the 1990-1997 period, show that two firm strategies which are R&D investment and product diversification are positively related to executive bonus pay. In Indonesia context, Riani et al. (2014) examine the impact of executive compensation on bank performance and risk taking behavior using data for Indonesian commercial banks. The find that executive compensation could lead to higher performance. They also conclude that at least in context of Indonesian banking, a higher executive compensation does not bring to a higher risk taking behavior. They argue that the banking oligopoly in Indonesia create less incentive for managers to invest in risky projects, as they enjoy the higher interest rate on loans even in less risky loans.

In contrast, a few number of studies find that high compensation will lead to poor stock price performance. Using sample of 495 firms over 3 years, Core et al. (1999) find that the component of compensation has a negative relation with subsequent firm operating and stock return performance. Ariely et al. (2009) also find that high level monetary rewards have a detrimental effect on performance.

Recently, a number of studies directly incorporate the role of corporate governance variables on executive or CEO compensation. For example, Guthrie et al (2010) find that the compensation committee independence requirement increases CEO total pay, particularly in the presence of effective shareholder monitoring. This evidence bolsters the managerial power hypothesis, the effectiveness of independent directors in constraining CEO pay. Benmelech et al. (2010) suggest that there is a connection between compensation and future stock

returns in a potentially broader set of firms.

#### 3. Empirical Strategy

We collect data on executive compensation of 67 listed Indonesian firms from their financial statements and annual reports (Note 1), while data on firm size, age, and leverage are also cross-checked with the OSIRIS database. We focus on the short period during the global financial crisis (2007-2008) to take a precise picture of the pay-for-perform.

Compensation is defined as total compensation received by directors and commissioners (LNCOMP). We use natural log of compensation following the study of Bangoj et al., 2010 to overcome heterogenity issue. Performance is peroxide by the ratio of return on assets (ROA\_L1). A lag value is employed for this variable as given the fact that the focus of this study is the effect of past performance on executive compensation. Another advantage by using the lag value is to avoid endogeneity problem between these two variables. Several control variables are included. First, we control for firm size measured by the natural log of total assets (LNTA). Then, we include the ratio of total debt to total assets to represent the leverage degree (LEV). The age of firm is also accounted (AGE). As some firms in this study are state-owned enterprises, we bring in a dummy variable to identify whether a firm is government firm or private firm (SOE). Dummies to account industries are also incorporated (Note 2). We control for year-effect as well as employing heteroscedasticy-robust method in all models. We estimate the empirical model using ordinary least square (OLS) regressions. Descriptive statistics as well as correlations among variables can be seen in Table 1.

Table 1. Descriptive statistics and correlations

	Mean	Median	Max	Min	LNCOMP	ROA_L1	LNTA	LEV	AGE
LNCOMP	15.548	15.635	17.651	11.097	1				
ROA_L1	7.155	5.510	60.660	-85.020	0.237	1			
LNTA	20.962	21.044	24.088	14.165	0.330	0.220	1		
LEV	50.634	51.679	99.996	3.466	0.041	-0.292	0.087	1	
AGE	28.648	25	77	5	0.204	0.339	0.053	0.063	1

This table presents the descriptive statistics and correlation matrix of variables. LNCOMP is the natural log of total executive compensation. ROA\_L1 denotes the lag value of the ratio of return on assets (%). LNTA represents the natural logarithm of total assets. LEV is the leverage ratio measured as the ratio of total debt to total assets (%). Age is firm age.

# 4. Results

Table 2 presents the results of OLS estimations. We alter some combinations of explanatory variables into three regression models. The first column is the OLS regression when only two explanatory variables (ROA\_L1 and LNTA) are included. We add LEV, AGE and SOE in the second model, while industry dummies are incorporated in the third specification.

As shown in Table 2, pay-for-performance hypothesis is confirmed in all regression models at 1% level of significant. The results show that Indonesian firms, in general, pay their top management members based on their performance. If firms' executives perform well in providing a higher accounting performance in the previous year, they will benefit by receiving a higher total compensation. It is in line with the findings of some previous studies on pay-for-performance hypothesis (e.g. Core et al., 1999; Geringer et al., 1999; Brunello et al., 2001; Kato et al., 2007; Bangoj et al., 2010, Shaw & Zhang, 2010; Ozkan, 2011).

Our results also show that large firms, as expected, pay a higher level of compensation to their executives than those of small firms. This evidence is robust in all models. Similar findings are also obtained for the coefficients of firm age in model 2 and 3. However, inconclusive findings are found in the sign of the coefficients of firm leverage. State-owned firms, as shown in column 3, compensate a higher salary for their directors and commissioners than those of privately owned firms.

Interestingly, the result of third model shows that coefficient of financial firms is positive and significant. It means that firms operating in finance industry tend to pay a higher compensation for their executives.

Table 2. Regression results

	Compensation (LNCOMP)								
Variables	1	2	3						
Constant	10.82***	11.21***	9.475***						
	(0.117)	(0.22)	(0.416)						
ROA_L1	0.012***	0.011***	0.007***						
	(0.001)	(0.00008)	(0.002)						
LNTA	0.219***	0.181***	0.29***						
	(0.005)	(0.01)	(0.019)						
LEV		0.002**	-0.004***						
		(0.001)	(0.0002)						
AGE		0.011***	0.004***						
		(0.002)	(0.0001)						
SOE		0.116	0.780***						
		(0.144)	(0.070)						
Basic			-0.176***						
			(0.024)						
Consumer			0.025						
			(0.065)						
Finance			1.299***						
			(0.094)						
Infrastructure			0.426***						
			(0.007)						
Mining			-1.407***						
			(0.171)						
Property			-0.619***						
			(0.091)						
Trade			0.205***						
			(0.009)						
Year dummies	Included	Included	Included						
Method	OLS	OLS	OLS						
Firms	67	64	64						
Observations	131	125	125						
R-squared	0.161	0.167	0.269						

This table presents the regression results. LNCOMP is the natural log of total executive compensation. ROA\_L1 denotes the lag value of the ratio of return on assets (%). LNTA represents the natural logarithm of total assets. LEV is the leverage ratio measured as the ratio of total debt to total assets (%). Age is firm age. SOE is the dummy variable taking a value of 1 for state-owned enterprises. The values in bracket are heteroscedasticy-robust standard errors. \*, \*\* and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

#### 5. Conclusion and Limitations

We test the relationship between past performance and executive compensation. The main finding of this study is there is a strong evidence past performance positively associated with the value of rewards given to firms' executives. The results reveal that Indonesian publicly traded firms apply the pay-for-performance system in compensating their executives. This system might reduce the agency problem between managers and shareholders, on the other side; however, this system might also increase the incentive for managers to take risk which subsequently enhance the degree of riskiness of firms.

However, we admit that this paper has some limitations. The small sample of this study could result a bias in the

interpretation as it lacks the degree of freedom. Another limitation comes from the fact that the relation between executive compensation and performance might be endogenous, even if the lag value of the proxy of firm performance used. Lastly, we acknowledge that this empirical model could not take into account the effect of pay-for-performance on risk taking behaviors.

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#### **Notes**

Note 1. We face a difficulty in collecting executive compensation data because many firms do not report compensation to their executives. Therefore, during the period we study, only 67 firms are included in the sample resulting in 125 firm-year observations.

Note 2. We refer to the work of Prabowo et al. (2012) that use Jakarta Stock Industrial Classification (JASICA) to distinguish the industry where a firm exists.

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# Corporate Governance Mechanisms and Jordanian Companies' Financial Performance

Tariq Tawfeeq Yousif Alabdullah<sup>1</sup>, Sofri Yahya<sup>2</sup> & Thurasamy Ramayah<sup>3</sup>

Correspondence: Tariq Tawfeeq Yousif Alabdullah, School of Management, University Sains Malaysia, 11800 USM, Penang, Malaysia. E-mail: tariqtariq1984@gmail.com

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#### Abstract

Previous studies in the literature review that dealt with corporate governance have recently witnessed significant growth that led to some new trends. The purpose of the current paper is to significantly contribute to such trends through investigating and analyzing the effect of corporate governance mechanisms on firm's financial performance for a sample consisting of industrial and service companies in Jordan. The current study examined cross sectional data through 109 companies (industrial and service companies). The study uses the annual reports for the fiscal year 2011 of the most active Jordanian companies in order to examine the predictions of corporate governance effects on financial performance. This cross sectional study tested all hypotheses of the study and used statistical software, SPSS 20, to analyze data. The findings indicated that board size has a negative association with firm financial performance. Furthermore, the empirical investigations for the current study revealed that the presence of independent directors in the board is not associated with financial performance. Likewise, the result showed that CEO duality has no impact on firm financial performance. From developed and developing countries' perspective, the current paper uniquely contributes to the literature that dealt with corporate governance and firm performance throughout introducing a market share variable as a measurement to represent firm's financial performance. In doing so, the paper is the first of its kind to provide new insights on the relationship between corporate governance and firm performance. It therefore provides a new indicator considered as extending for prior research in this discipline as, to the best of researcher's knowledge; no prior work has been done in both developed and developing economies including Jordan. The study provides empirical evidence to the academic, policy makers and all beneficiary parties of stakeholders in the Middle East, specifically Jordan.

**Keywords:** corporate governance, board size, independent board, CEO duality, financial performance, market share, Jordan

# 1. Introduction

Globally, corporate governance has got wide attention due to the crises and scandals faced by so many countries, such as Adelphia, Enron and WorldCom, and other scandals. All have contributed, as mentioned by Brown et al. (2006), to encouraging the companies in the whole world to pursue to get strong corporate governance in their companies. Good corporate governance leads to better firm valuation and enhancing its performance, in that firms dealing with better practices of corporate governance should perform better than those having worse corporate governance practices (Simmons, 2004; Franck & Sundgren, 2012). Several previous studies in the literature have studied and investigated the relationship between corporate governance and firm performance due to the fact that the importance of corporate governance to improve companies condition from one hand and the revival of the economic from the other hand.

Despite the fact that corporate governance is a one control system that has clear principles and mechanisms, still there is no unique concept to describe it within one philosophical framework (Alabdullah et al., 2014). Thus, there is a variety of definitions of corporate governance shown by the previous studies in the literature. For instance, Cadbury Report (1992) considered corporate governance as a control system which directed and

<sup>&</sup>lt;sup>1</sup> College of Administration and Economics, Accounting Department, University of Basrah, Iraq

<sup>&</sup>lt;sup>2</sup> Graduate School of Business, University Sains Malaysia, Penang, Malaysia

<sup>&</sup>lt;sup>3</sup> School of Management, University Sains Malaysia, Penang, Malaysia

controlled a company. Guo et al., (2013) illustrate that Corporate Governance is concerned with the relationship between stockholders (the principal) and management (the agent). They show that, focus on such issue is to limit and manage the potential conflict between these two parties. In the same vein, Solomon & Solomon (2003) admit that the majority of scholars are in the same line and totally agree with the core idea that corporate governance is a set of mechanisms and a control process that pursue to make the management act in the best interest of stockholders. Eiteman et al. (2009) demonstrate corporate governance as representing the relationship among stakeholders used to identify and control firm's strategic direction and performance.

Corporate governance represented by its mechanisms is an important and vital instrument that its role lies in/focuses on controlling the corporation and arranging its accountability. In addition, corporate governance is not only useful for stockholders, but also it is useful for all parties of the stakeholders (Aras & Crowther, 2008). Bearing in mind that corporate governance is precise and ancient control system that has deep roots. Its roots ancient and back to a hundred of years which means that its principles had implicit presence that had not applied directly nor had legislation, law, and even special name (Alabdullah et al., 2014).

The current study is important due to the fact that there is an internationally growing trend that could be recognized of the value of corporate governance system for a firm's success, given that several institutions and countries have issued recommendations and guidelines for best corporate governance practices and board composition. Moreover, corporate governance is considered as an extension to what agency theory principles have been tried to solve the eternal conflict between the managers (agent) and the stockholders (principal). Thus, especially after the global crisis, the use of sound implementation of corporate governance has become so important to be implemented by regulators and leaders of the organizations to avoid occurring other potential crisis or even to limit its effect on one hand, and to enhancement firm performance on the other hand.

The primary objective of the present study is to contribute uniquely to enriching the body of knowledge in the management and accounting discipline through investigating the relationship between corporate governance mechanisms and firm's financial performance in both developed the developing countries, specifically in Jordanian context. Thus, it contributes to the existing literature in different ways. Firstly, there is no previous study that chose market share as a measurement and indicator of firm performance in developed countries in general, nor in developing ones including Jordan in particular. Secondly, there is gab in the findings of previous studies that dealt with corporate governance and firm performance is inconclusive. Some of them found that the relationship between corporate governance mechanisms is positive relation, and others found that such relation is negative, while other group found there is no relationship between corporate governance and firm performance. Consequently, this calls for the dire need from the researchers to investigate another measurement of firm performance. Thus, Market share is the measurement used by the current study to refer to financial performance which has never been used before in the literature. Finally, as mentioned by Al-Qaisi (2013), there is a lack of performance facing the companies that belong to non-financial sector in Jordan.

The sample of this current study consists of 109 non-financial companies whose 2011 annual reports are available with no missing data on Amman Stock Exchange website; for Jordanian industrial and service companies. The Corporate Governance mechanisms chosen in the current study are represented by board size, independent board, and CEO duality to investigate their relationship with firm financial performance which lies in market share.

The remainder of the present study is structured in the following way. Section 2 reviews briefly the firm performance which is followed by explaining the relationship between corporate governance and firm performance including the prior work of each corporate governance mechanism selected in the present study and their relationship with firm performance as argued by previous studies in the literature. This is followed by Section 3 which discusses source of data collection and measurement of variables through the methodology. In Section 4, the result and discussion will be presented. Finally, Section 5 will be the conclusion and limitation of the study.

#### 2. Literature Review and Research Hypotheses

#### 2.1 Firm Performance

Firm performance has been investigated in the accounting/management literature based on agency theory as a major dependent variable that would be achieved and enhanced as an important goal (Bauer et al., 2008; Haniffa & Hudaib, 2006; Klapper & Love, 2004). The main purpose of firm performance that stems from its concept is to consolidate the efficiency and effectiveness of the company and achieve its objectives being the main concern for the firm in the long run to survive (Al-Hawary, 2011; Zehir et al., 2011).

A widespread body of literature about firm performance has been published over the past few decades. Firm performance has increasingly become a very important issue by the scholars and researchers due to its positive impact on enhancing the economy and solving its social problems and eliminating unemployment (Palacios-Marqués et al., 2013; Cooke, 2001). Thus, recently there have been a wave of intensive studies in developed countries that focused on/investigated the firm performance (Clarke et al., 2011; Garay & González, 2008; Hiraki et al., 2003; Mazzanti et al., 2006) Nonetheless, a little attention has been given for firm performance in the developing countries especially in Jordan (Al-Haddad et al., 2011; Al-Hawary, 2011).

Martinsons et al. (1999) mentioned that drawback and lack in most of previous studies is represented by using traditional methods in measuring financial performance such as ROA, ROE, etc. Marr & Schiuma (2003) mentioned that there is a weakness in the procedure of firm performance measurement. Thus, the current study is the first to investigate the relationship between corporate governance and financial performance measuring via market share, where no previous study did so. Market share variable is selected mainly to represent firm performance because the study believes that market share has a significant role to do so. This belief is in line with previous studies (Oxenfeldt, 1959; Hansen & Wernerfelt, 1989; Mayer, 1997; Eccles, 1990; Zehir et al., 2011) which note that a market share's role is a very important item that might be represented by firm performance. For example, Mayer (1997) shows that market share could be a measurement for firm performance. Moreover, Oxenfeldt (1959) admits that market share is an effective appraisal instrument measurement that refers to firm and management performance. In the same assertion, (Eccles, 1990; Hansen & Wernerfelt, 1989) assure that market share is a proxy to measure firm performance. In addition, Zehir et al. (2011) point out that companies give more attention to measure their performance because it reflects their activities, shows market share, and achieves profitability. Thus, based on the assertions and recommendations in the literature, the current study pursues to use market share to represent firm's financial performance because as, Hoque & James (2000) assert that in case a firm has a good market share, the firm will have market position demand to internal communication system that enhances the picture of firm performance. Choosing market share is valid to be used in the present study because as argued by Oxenfeldt (1959), market share indicator is valid and more suitable in the safety country that characterized by its stable market. Thus, this is quite suitable in the Jordanian context. Jordan is considered as one of competing and stable countries in the region due to its highly safety and stability (Alkhatib & Marji, 2012).

#### 2.2 Corporate Governance and Firm Performance

Corporate Governance is concerned with how to prepare the structure, procedures and mechanisms by which activities of a firm are managed, in that to maximize the shareholder worth through responsibility of managers and consolidating firm performance. Chen et al. (2009) argue that recently the empirical evidence in the literature supports the notion that corporate governance limits agency cost, leading to reinforce the viewpoint: the better the CG, the more improved the performance and the higher the firm value.

A substantial body of literature on the firm performance/value providing empirical evidence has been published over the past few decades (see Clarke et al., 2011; Cui & Mak, 2002; Hiraki et al., 2003; Jensen & Meckling, 1976; Makhamreh, 2000; Mazzanti et al., 2006). What stands out in the literatures dealing with performance/value and its relationship with corporate governance system is the multiplicity of views which lead to different results obtained from this relationship. Some of literature stream, done in different parts of the world, supports the notion that corporate governance is crucial, positive, and significant in its relationship with firm performance (see Abor & Biekpe, 2007; Al-Haddad et al., 2011; Andres & Vallelado, 2008; Balasubramanian et al., 2010; Black et al., 2006; Chen et al., 2009; Cheung et al., 2007; Chhibber & Majumdar, 1997; Dittmar & Mahrt-Smith, 2007; Durnev & Kim, 2005; Garay & González, 2008; Gedajlovic & Shapiro, 2002; Gompers et al., 2003; Hiraki et al., 2003; Jaafar & El-Shawa, 2009; Kim et al., 2012; Klapper & Love, 2004; Tornyeva & Wereko, 2012; Zheka, 2006). For example, Klapper & Love (2004) conduct their study across fourteen emerging countries with a number of 374 firms. The performance and value metrics they used were Tobin's Q and return on assets (ROA). They find a positive association between the quality of corporate governance and firm performance and market value. Zheka (2006) shows that the relationship between the quality of corporate governance and enterprise performance is causal and positive. Their sample survey was on Ukraine firms using the net revenue as measure of firm performance. On the other hand, negative finding between corporate governance and firm performance could be seen in previous studies (see Agrawal & Knoeber, 1998; Bauer, Guenster, & Otten, 2004; Haniffa & Hudaib, 2006; Jensen, 1993; Mak & Kusnadi, 2005; Yermack, 1996). However, other findings from other previous studies in the literature such as, Heracleous (2001) who confirms the relationship between corporate governance best practices represented by the mechanisms of duality of chief executive officer/Chairman and the composition of the insider and outsider in the firm and firm performance.

The findings show that such a relationship is insignificant. Due to this gap in the literature, and according to what has been argued by Marr & Schiuma (2003), they demonstrate that despite the extensive trends towards measurement of firm performance that have been studied by several researchers in the literature and used so many new approaches for firm performance measurement, yet the discipline of firm performance measurement still needs more deliberations and contributions to recover and overcome the lack in firm performance's measurements. Hence, the current study contributes to the field of firm performance by choosing a suitable indicator to measure financial performance.

#### 2.3 Theoretical Framework and Hypotheses Development

The framework for current study is shown in Figure 1. The independent variable in the current study is corporate governance represented by its board composition' mechanisms, namely board size, board independence, and CEO duality. The dependent variable is firm performance represented by market share. In addition, the control variable is firm size. We predict the hypotheses of this study according to previous studies in the literature review as follows.

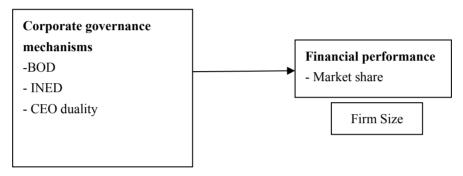


Figure 1. Theoretical framework

#### 2.3.1 Board Size and Firm Performance

Board of directors is one of essential and unique components of both board dynamics and overall quality of corporate governance mechanisms that oversees the company's business conduct to ensure it is properly managed by their agents and to reduce agency cost (Hassan & Ahmed, 2012; Mkrtchyan, 2013; Shleifer & Vishny, 1997). There is a consensus in the previous studies in the literature that illustrate and admit that the effectiveness of board of directors can be achieved based on the level of expertise and knowledge (Mkrtchyan, 2013). Diversified viewpoints have been reviewed in the findings of the previous studies about effectiveness of the board of directors. Some studies find that the small board size can lead to better and particular outcome than the larger one. Such a viewpoint proposed that the small size of the board of directors is more effective than the larger board for increased communication and coordination problems. Moreover, it might lead to decrease poor decisions made by a large group of the board (see Adnan et al., 2011; Haniffa & Hudaib, 2006; Jensen, 1993; Kumar & Singh, 2013; Mak & Kusnadi, 2005; Mashayekhi & Bazaz, 2008; Rashid et al., 2010; Yermack, 1996). On the other hand, other viewpoints in the previous studies demonstrate that the larger the board of directors the more effectiveness, knowledge, capabilities, and expertise; thus this will lead to better performance (Buniamin et al., 2008; Jaafar & El-Shawa, 2009; Nicholson & Kiel, 2004). In the same vein (See, Abor & Biekpe, 2007; Adams & Mehran, 2012; Kajola, 2008; Kim et al., 2012; Tornyeva & Wereko, 2012) argued that the large size of the board of directors is one of the most important corporate governance mechanisms that leads to obtain better performance. While, Bhagat & Black (2002) and Sueyoshi et al. (2010) found insignificant association between board size and firm performance (Tobin's q). Therefore, we predict that increasing board size will be associated with increasing firm performance.

H1. There is a positive relationship between board size and the level of firm financial performance (market share).

#### 2.3.2 Board independency and Firm Performance

Corporate governance literature proposes that the extent of non-executive (independent board) directors in the board of directors is promoted board effectiveness and this might help to alleviate and reduce agency problems by monitoring and controlling management's opportunistic behavior (Haniffa & Hudaib, 2006).

Several previous studies examined the relationship between non-executive directors in the board of directors and

firm performance (Abor & Biekpe, 2007; Adams & Mehran, 2012; Adnan et al., 2011; Agrawal & Knoeber, 1998; Al-Hawary, 2011; Andres & Vallelado, 2008; Balasubramanian et al., 2010; Bhagat & Black, 2002; Chaghadari, 2011; Fama & Jensen, 1983; Heracleous, 2001; Kajola, 2008; Klein, 1998; Kumar & Singh, 2013; Mashayekhi & Bazaz, 2008; Tornyeva & Wereko, 2012; Yermack, 1996; Yoshikawa & Phan, 2003; Zheka, 2006) and the results were inconsistent.

Empirical studies such as (Yermack, 1996; Laing & Weir, 1999; Adnan et al., 2011; Chaghadari, 2011; Heracleous, 2001; Kajola, 2008; Yoshikawa & Phan, 2003) find that board independence is not considered to be a significant factor that affects the level of firm performance. In the same vein, other studies in the literature such as Hermalin & Weisbach (1991); Mehran (1995) Bhagat & Black (2002) find that there is no relationship between board independent existence and firm performance.

On the other hand, (Agrawal & Knoeber, 1998; Klein, 1998) find a negative effect of outside directors on firm performance. However, the majority of previous studies admit that the existence of non-executive directors on the board of directors builds up the independency of the board which facilitates them to effectively monitor and ensure the competition among executive managers which eventually promotes and maximizes firm performance (Abor & Biekpe, 2007; Al-Hawary, 2011; Balasubramanian et al., 2010; Fama & Jensen, 1983; Kumar & Singh, 2013; Mashayekhi & Bazaz, 2008; Tornyeva & Wereko, 2012; Zheka, 2006). Based on this literature, the following hypotheses are developed:

H<sub>2</sub>: There is a positive relationship between independent board and the level of firm financial performance (market share).

#### 2.3.3 CEO Duality and Firm Performance

Jensen & Meckling (1976) argue against CEO duality role where making decision management and control under one person increases boards' non-effectiveness in monitoring. In that, companies that have one person serving as both chairman and chief executive officer are having CEO duality, whereas this case leads to be more managerially dominated (Ho & wang, 2001). When there is no separation in the position of CEO (the general manager) and chairman of the board, it calls CEO duality. It is such a vital monitoring mechanism based on agency theory (Grant, 2003; Chaghadari, 2011). The good feature for non-duality lies in weakening CEO power and higher board oversight. One of key theories that brought it to bear is agency theory and thus CEO duality becomes as an attractive subject for academics and scholarly. For instance, Dalton et al. (1998) explain that agency theory has been concerned extremely with the preference based on the separation between CEO and board chairman position because duality increases entrenchment of CEO and consequently reduces the monitoring effectiveness in the board of directors. The presence of duality in leadership could even contribute to the lack of transparency and accountability within the company. According to the essence and idea of agency theory, Fama & Jensen (1983) show that firm with non CEO duality performs better than those having no separation. In the same orientation, Baliga et al. (1996) argue that the duality of CEO-Chairman has a little and very weak evidence related to its effect on firm performance. Nevertheless, to appoint one person to be chairman and CEO will lead to entrench the decision making and power by such a person which eventually affects board ability in doing effective control. In that, firms with the CEO duality offers greater power to one person which enables him/her to make decisions that do not maximize the shareholder's wealth. However, Chaganti et al. (1985) find no significant relationship between CEO duality and firm performance. In the same vein, (Rechner & Dalton, 1989; Baliga et al., 1996; Laing & Weir, 1999; Heracleous, 2001; Yoshikawa & Phan, 2003; Mashayekhi & Bazaz, 2008) admit that there is no significant effect of CEO duality on firm performance. Neverthless, some other studies in the literature had opposite finding such as (Balasubramanian et al., 2010; Kajola, 2008; Tornyeva & Wereko, 2012) who find there is a positive relationship between CEO duality and firm performance.

On the other hand, several previous studies (Grove et al., 2011; Bai et al., 2004; Chaghadari, 2011; Rechner & Dalton, 1991; Jensen, 1993; Yermack, 1996; Zheka, 2006) find that when there is no duality in CEO-chairman, firm performance will be enhanced. Therefore, it is hypothesized that:

H<sub>3</sub>: There is a positive relationship between companies which do not have CEO duality and market share.

#### 3. Methodology

#### 3.1 Source of Data Collection and Variables Measurement

The current study deals with a sample consisting of a non-financial sector for listed Jordanian firms as cross-sectional study through collecting the primary data from the annual reports for the year 2011. We chose this year because the data is available and sufficient to serve the aim of this study as this study avoids involving financial sector because such a sector has its own different characteristics and regulations that make it differ

from the other two sectors (Alkhatib & Marji, 2012). We collected accounting and other useful data for the independent and dependent variables that served the current study to achieve its aim. The current study is the first to measure the dependent variable; financial performance via market share. The internal corporate governance mechanisms namely: the board size (BOD), the board independent/the independency (INED) and CEO duality (CEO duality) as independent variables and the dependent one is market share. In addition, firm size (Co size) is the control variable. Table 1 shows variables measurement summary.

Table 1. Summary of variables measurement

NO	Variables	Acronym	Measurement
1	Dependent Variable	MARKETSHARE	Market Share is measured as net sales divided by the total
1	Market Share (%)	WARKETSHARE	sales of the industry.
	Independent Variables		
2	Board Size (number)	BOD	The number of directors on the board of directors.
3	Independent board (%)	INED	Outside director is the number of outside directors on the board.
4	CEO Duality (number)	CEO duality	Whether or not the chairman is also the CEO during the year, where it will take the value of "1" if the CEO is also the chairman of the board, and "0" otherwise.
	Control Variable		
5	Firm Size (number)	Co size	Natural logarithmic of the firm's total assets.

#### 4. Results and Discussions

#### 4.1 Descriptive Analysis

This section presents the descriptive analysis of the research variables; dependent and independent variables for the 109 non-financial companies listed at Amman Stock Exchange (ASE) through using descriptive statistics such as mean, standard deviation, minimum and maximum. Table 2 shows the distribution of the variables. Based on the results of descriptive statistics, the dependent variable which is financial performance (market share) showed that the mean market share of Jordanian industrial and service companies is 45.21% with a standard deviation of 0.286. Moreover, minimum rate of market share in the Jordanian non-financial companies is 7.9% with highest level of market share equal to 92%. In addition, the descriptive analysis for the independent variable (corporate governance mechanisms shows that the average size of board of directors for the entire sample is about nine members (mean = 8.81) with a standard deviation of 3.204. For the board independence of the companies in the sample the result reveals that the mean is 39.5% with a standard deviation of 3.755. Also the results of descriptive analysis revealed that of the 109 companies of the sample, 17% the same person acts both the board chairman and the CEO positions. In Table 2, the results also show that the values for the skewness and kurtosis reveal that our sample is normally distributed because they are within the range of normality for both skewness and kurtosis. Brooks (2014) demonstrates that the normality of data could be achieved if standard kuartosis is within  $\pm$  3 and standard skewness  $\pm$  1.96. In addition, the current study did not resort to choose or add industry category a control variable regarding the matter of different nature of the companies' work that exist within the sector as long as it calculates the market share for industrial and service sectors according to the companies involved in key industries, whether in service or industrial sector. It is worth mentioning that both industrial and service sectors include a set of industries (companies) having different activities and moves. In industrial sector for example: Pharmaceutical, medical industries, chemical industries, etc. and in the service sector: Health Care Services, Educational Services, etc. Thus, in order to measure market share, the current study takes into consideration the total sales of the companies that belong to the same industry and then calculates the ratio of each company's sales to total sales to reach the market share of this industry and thus this market share is calculated for each company in the sector to which it belongs. However, the current study resorted to add a financial control variable expressed by the natural logarithm of the book value of total assets as a proxy for firm size as used by (Anderson & Reeb, 2003; Adams & Mehran, 2012). In that, we use control variable for market share because we cannot compare the market share for the large company with that small one unless we avoid the difference in size.

Table 2. Descriptive analysis

Variables	Mean	Std. Dev.	Minimum	Maximum	Skewness	Kurtosis
Market share	.452	.286	.079	.920	.142	898
BOD	8.81	3.204	3	15	.434	-1.409
INED	.394	.375	.000	1.000	1.741	1.050
CEO duality	.17	.381	0	1	.391	-1.259

#### 4.1.1 Descriptive Statistics of Board of Director

Table 3 describes the percentage of board size on the firm performance. The descriptive statistic showed that only 22 companies have 7 members in the board with a percentage of 20.2, and 18 companies have 9 members in the board of directors with a percentage of 16.5. Moreover the descriptive analysis showed that 14 companies have 5 members with percentage of 12.8. On the other hand, the descriptive analysis also revealed that 2 companies have 8 members with a percentage of 1.8. Also there are 3 companies having 6 members with a percentage of 2.8. The table showed there are three frequencies with 4 companies. The first one has 3 members; the second one has 4 members, while the third group showed that 4 companies have 15 members. The percentage of these frequencies is 3.7.

Table 3. Statistics of board size

-	Frequency	Percent	Valid Percent	
3 Valid	4	3.7	3.7	
4	4	3.7	3.7	
5	14	12.8	12.8	
6	3	2.8	2.8	
7	22	20.2	20.2	
8	2	1.8	1.8	
9	18	16.5	16.5	
10	6	5.5	5.5	
11	11	10.1	10.1	
12	8	7.3	7.3	
13	7	6.4	6.4	
14	6	5.5	5.5	
15	4	3.7	3.7	

Table 4 describing the percentage for the board size on the companies shows that only 22 companies have the size board less than 5 members with 20.2 percent and 87 companies have the size board that is above 5 members with 79.8 percent. The descriptive statistic showed that most of the non-financial companies in Jordan have a majority of board size that above 5 members in the board.

Table 4. Frequency of board size

	Frequency	Percent	Valid Percent
Less than 5	22	20.2	20.2
Above 5	87	79.8	79.8

#### 4.1.2 Descriptive Statistics of Board Independent/Non-executive Directors

Table 5 reports the independent members in board of directors in non-financial Jordanian companies. It shows that the percentage of independent board was between 0.000- 1.000 percent. The table shows there is 51 companies that have an independent board between .000 to .222 percent. Also there are 18 companies that have an independent board between .250 to .555. Moreover, there are 14 companies having independent members

between 0.571 to 0.800 percent. The table further shows that there are 8 companies that have an independent board from 0.818 to 0.888 percent. In addition, there are other 18 companies that have .900 to 1.000 percent of independent members in the board. Finally, the descriptive statistic shows that most of the non-financial companies in Jordan have a majority of independent boards between .000 to .222.

Table 5. Descriptive statistics of Independent board

	Frequency	Percent	Valid Percent	
Valid .000 to .222	51	46.8	46.8	
.250 to .555	18	16.4	16.4	
.571 to .800	14	12.7	12.7	
.818 to .888	8	9.9	9.9	
.900 to 1.000	18	14.2	14.2	

#### 4.1.3 Descriptive Statistics (Frequency) CEO Duality

Table 6 shows that the CEO duality in the non-financial companies in Jordan was 17.4 percent for 19 companies, while 82.6 percent for the companies that do not have CEO duality were 90 companies. The descriptive statistic shows that most of the non-financial companies in Jordan have a majority of non CEO duality.

Table 6. Frequency of CEO duality

	Frequency	Percent	Valid Percent	
Duality	19	17.4	17.4	
Non duality	90	82.6	82.6	

#### 4.1.4 Market Share Statistics

Table 7 reports the market share in Jordanian's non-financial companies. It shows that the percentage of market share was between 0.079- 0.92 percent. The table reveals that there are 22 companies that have market share between .079 to .154 percent. Also there are 19 companies that have market share between .163 to .300. Furthermore, there are 20 companies having market share between 0.325 to 0.431 percent. The table further shows that there are also 20 companies that have market share but it is from 0.439 to 0.707 percent. Also, there are 28 companies having .768 to .920 percent of market share. Finally, the descriptive statistic demonstrates that most of the non-financial companies in Jordan have a majority of market share between .768 to .920.

Table 7. Descriptive statistics of market share

	Frequency	Percent	Valid Percent	
Valid .079 to .154	22	19.8	19.8	
.163 to .300	19	17.4	17.4	
.325 to .431	20	18.5	18.5	
.439 to .707	20	18.5	18.5	
.768 to .920	28	25.8	25.8	

#### 4.2 Correlation Analysis

The correlation between the dependent and independent variables is shown in Table 8. The result shows that two independent variables have negative relationship with market share and only one independent variable (CEO duality) has a positive relationship with market share, with values (BOD -.955), (INED -.161), (CEO duality.074). The table shows that board size has a highly negative relationship with market share with value -.955. Moreover, we examined the level of multicollinearity between the independent variables which should be less than 80% as suggested by Yoshikawa & Phan (2003). We found the data didn't have multicollinearity problems, which often require 80% or more to indicate that the correlations between the independent variables have multicollinearity problems. The table reports the correlations of the variables. In addition, we examined the

multicollinearity through two other indicators, namely; Tolerance and Variance Inflation Factor (VIF) as shown in Table 9. It shows that all tolerance values for the variables are more than 0.1 with VIF values that is less than 10, as suggested by (Dias et al., 2011; Hair et al., 2010; Melagraki et al., 2009; Coyne et al., 2004). Even though other studies such as Shihab et al., (2010) set the maximum value of Variance Inflation Factor (VIF) to be 2.5, the current study reached such a level that didn't exceed 2.5. In other words, all results indicate that data in the current study are absence of multicollinearity thus the model contains no multicollinearity.

Table 8. Correlations between variables

	BOD	INED	CEO duality	Co size	Market share
BOD	1				
INED	.195*	1			
CEO duality	109	093	1		
Co size	.337	.043	125	1	
Market share	955**	161	.074	311	1

Level of significance \*p< .10, \*\*p< .05

#### 4.3 Multiple Linear Regression Analysis

In the current study, linear regression analysis was used to determine the direction of the relationship between the predictors variables and criterion as a common statistical method that have been used in several science disciplines (Nathans et al., 2012).

Table 9. Multicollinearity test

Variables	Tolerance Value	VIF
Board size	.851	1.175
Board independency	.956	1.046
CEO duality	.974	1.027
Co size	.878	1.139

#### 4.3.1 Regression Results of Model (Based on Firm Performance Measured by Market Share)

In Table 10, regression results show that R square value is .914 for market share. This means that R square value is explaining 91% of the independent variables (BOD, INED and CEO duality) on the dependent one (market share).

Table 10. R Square of Market share

Model	Market share
R Square	.914
Sig F Change	.000

The autocorrelation is examined by using Durbin Watson (DW) test. In this respect, the Durbin Watson of 1.75 is a good value since it falls between the acceptable range of 1.5-2.5 as suggested by Knoke (2003), and it shows there is no autocorrelation problem in data.

In Table 11, regression statistical analysis was run between all the variables that have been chosen in the current study represented by the independent variables, control variable, and the dependent variable of market share; the output shows that two variables have a negative relationship with market share (BOD;  $\beta$  =-.967, CEO duality;  $\beta$  = -.028), while the others: Co size (log of total assets) and INED have positive relationship with market share (INED;  $\beta$ =.024 , Co size;  $\beta$  = .010).

The results of regression analysis show that Co size is insignificant with financial performance (market share). The testing hypotheses of the current study found surprising results regarding the association between every

independent variable and dependent ones, as shown in Table 11. There is a highly significant negative impact relationship between board size (BOD) and firm financial performance (market share) at P< .00,  $\beta$ = -.967. In that, small size of board of directors is associated with higher financial performance. This result provides support to prior studies in Malaysia; Adnan et al. (2011), Haniffa & Hudaib (2006) and a study in Singapore and Malaysia; Mak & Kusnadi (2005) and in India; Kumar & Singh (2013) and in Iran; Mashayekhi & Bazaz (2008) and in Bangladesh; Rashid et al. (2010) and in the US; Yermack (1996), Jensen (1993). In that, this result is consistent with previous studies that were done in both developed and developing countries. However, this result is inconsistent with H1, BOD is positively correlated with financial performance. Therefore, hypothesis H1 is not supported. The reason of this result reflects that small size of board of directors in non-financial companies in Jordan is more active and this leads to better outcome than large one (Adnan et al., 2011). Such a result matches with the result in the previous studies which admit that small size of boards increases and improves the communication and coordination problems.

H2 states that INED is positively associated with firm performance. Although the direction of this hypothesis was correct, the hypothesis was not supported because it reveals that the relationship between independent board (INED) and firm performance is insignificant at P > .1,  $\beta$ =.024. Nevertheless, this result is similar to some of previous studies in the literature that found no relationship between independent board of directors and financial performance, which means the board independence, is not considered to be a significant factor that affects firm performance. Some of these studies were in developing countries like (Adnan et al., 2011; Chaghadari, 2011; Kajola, 2008) and the others in developed countries such as (Adams & Mehran, 2012; Bhagat & Black, 2002; Hermalin & Weisbach, 1991; Mehran, 1995; Yermack, 1996; Heracleous, 2001; Yoshikawa & Phan, 2003). We believe that the potential reason to explain this result is that board independency doesn't matter. In that, independent and non-independent board of directors is equally good or might be bad to represent the wealth of stakeholders. Finally, our study predicted and hypothesized the companies that do not have duality are positively linked with firm performance (market share). The result shows that the hypothesized direction was correct but it was found insignificant relationship (P > .1,  $\beta$ = -.028). However, the insignificant result between the CEO/mechanism duality and firm performance is consistent with some studies that have been done previously in the literature, for example, Mashayekhi & Bazaz (2008) and Chaganti et al. (1985), who found insignificant relationship between CEO duality and firm performance.

Ramdani & Witteloostuijn (2010) argue that from perspective of agency theory, the Chief Executive Officer and chairman of the board of directors should be held by different persons so that the separation between control responsibility and management could be achieved and leads to enhancement of firm performance. In our sample, although the majority of non-financial companies tended to apply separation between CEO and chairman (where 82.6 percent for the companies do not have CEO duality which is equal to 90 companies), there was an insignificant relationship between this mechanism and firm performance. Our possible explanation for this result is that the cost of implementation of this mechanism exceeds its benefits which consequently lead to lack of effectiveness of this mechanism, which might also be affected due to some environmental variables which can be considered critical. Moreover, another possible reason for this result is that within Jordanian company, it is the substantial shareholder who is likely to be a person who serves as both CEO and board chairman, so it does make sense if the two jobs are separated or otherwise.

Table 11. Regression statistical analysis

	Market share Standardized Coefficients		
Variables	Beta	t- value	Sig.
BOD	967***	-31.102	.000
INED	.024	.833	.407
CEO duality	028	963	.338
Co size	.010	028	.747

Level of significance \*p < .10, \*\*p < .05, \*\*\*p < .01

#### 5. Conclusion

In the last three decades, and even more recently, corporate governance has become a very vital and important issue to the corporation including non-financial sector and its performance. The business world has faced many scandals and failures at the level of all sectors such as Enron and Arthur Andersen and Marconi. Such scandals and others have brought about a shock for both developed and developing economies and given so much attention to investors and other stakeholders to beware of dealing with corporations, non-financial sector, which have poor level of corporate governance.

There are several studies that have dealt with the relationship between corporate governance and firm performance, however, it should be noted that while the argument over corporate governance mechanisms role has been rich in rhetoric, there have been practically no empirical studies brought to bear on investigating the relationship between corporate governance and firm performance by choosing market share as a measurement of firm financial performance. This study uses Jordan data to analyze whether companies performed more when they have large board size, have independent non-executive directors, and have no CEO duality. In that, this study investigates the relationship of the firms' internal corporate governance mechanism represented by board of directors attribute (board size, board independency, and duality) and Jordanian Companies' Financial Performance.

In order to test the hypotheses between these mechanisms and financial performance, we use data in the annual reports for the fiscal year 2011 as cross section analysis of a sample of 109 listed Jordanian industrial and service companies from the website of Amman Stock Exchange (ASE).

We find contradiction in the common belief that non duality/duality leadership structures and more/less independent boards lead to enhancement of firm performance, which indicate that agency theory is unable/limited in its illustration of the link between these two board characteristics and firm performance. Our findings revealed a negative effect of board size on firm performance in non-financial companies in Jordan. On the issue of CEO duality, we reveal that although the majority of Jordanian firms have separated the CEO from chairman role through appointment of two different people occupying such positions, the result shows there is no impact of such mechanism on firm performance. Our possible explanation for this result is that the cost of implementation of this mechanism exceeds its benefits which consequently lead to lack of effectiveness of this mechanism, which might also be affected due to some environmental variables which can be considered critical. This result is supported by the findings of some previous studies such as Chaganti et al. (1985), Rechner & Dalton (1989), and Yoshikawa & Phan (2003).

Our study also reveals insignificant relationship between independent board (outside directors) and firm performance. We believe that the potential reason to explain such result is that independent board doesn't matter. In that, independent and non-independent board of directors is equally good or might be bad to represent the wealth of stakeholders. This result is in conflict with that of Agrawal & Knoeber, (1998) who found that the higher percentage of dependent board the lower firm performance and vice versa. In addition, our result is incompatible with that of Abor & Biekpe, (2007) and Balasubramanian et al. (2010) who found that independent board promotes and maximizes firm performance. However, this result is similar to that of (Chaghadari, 2011; Heracleous, 2001; Kajola, 2008; Bhagat & Black, 2002).

Our regression results show that there is a negative and significant relationship between board size and firm performance. The reason of this result reveals that small size of board of directors in non-financial companies in Jordan is more active and this leads to better outcome than large one. Some of prior studies admitted this result such as those by Adnan et al. (2011), Haniffa & Hudaib (2006), Kumar & Singh (2013), Rashid et al. (2010), Yermack (1996), Jensen (1993). On the other hand, such result contradicts with that of (Abor & Biekpe, 2007; Adams & Mehran, 2012; Jaafar & El-Shawa, 2009) who found that the board size has a positive and significant relationship with firm performance.

This study is not without limitation, and this limitation must be taken into consideration when explaining its results. It must be admitted that this analysis is limited to the non-financial companies in one of emerging countries, Jordan. Thus, for future research there is a need to examine whether the same findings can be found by examining these variables in different countries that have different legal systems because as mentioned by Sanchez-Marin & Baixauli (2014) that the effectiveness of corporate governance is different between countries especially between developed and developing ones. Moreover, it should be taken into account that the current study focuses on the corporate governance mechanisms represented by board composition in one of the developing countries while its new idea should be tested also in the developed countries to identify the effect of such variables on firm financial performance measurement via market share, where no previous study did so.

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## Emotional Experiences of Person as a Reason of Psychosomatic Risk Origin

Galina Ivanovna Efremova<sup>1</sup>, Galina Valentinovna Timoshenko<sup>1</sup>, Elena Anatolievna Leonenko<sup>1</sup> & Irina Aleksandrovna Bochkovskaya<sup>1</sup>

Correspondence: Galina Ivanovna Efremova, The North-Caucasus Federal University, 355029, Stavropol, Pushkina street, 1, Russian Federation. E-mail: efremova ncfu@mail.ru

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#### Abstract

This article is focused on issues of psychological conditions for complex research of psychosomatic disorders risk. It investigates level of a scientific development of significant categories of a longstanding uncompensated stress and emotional experiences causing it. Here is described necessary model of development of theoretical grounds of psychological research that investigates the reasons of risk of various psychosomatic disorders.

**Keywords:** emotional experiences, emotional stress, longstanding uncompensated stress, psychosomatic disorders risk

#### 1. Introduction

Psychosomatic disorders at the present time count form 45% to 85% of all disorders amount (according to WHO's report). Such patients are unsuspicious of true nature of their disorders and continue to be treated for many years at general practitioners that in most cases doesn't lead to improvement of their state. In this situation, general practitioners also aren't always capable to recognise the psychosomatic nature of this or that disorders and to refer the patient to the corresponding specialist. Moreover, at present time in world practice effective and technological system of treatment of similar disorders doesn't exists. Such situation is directly connected with absence of the universal and complete theoretical conception of the system analysis fpr identification of the reasons of formation of psychosomatic risk which would allow to develop system of the effective psychotherapeutic help to the persons having psychosomatic disorders.

#### 2. Emotional Stress as a Main Psychosomatic Risk Factor

It should be noted that, proceeding from the essence of psychosomatic defect, such conception should have to be based not only on biological and medical, but also on psychological researches. However the researches of this subject existing at the moment generally belong to representatives of natural and medical sciences (Beresin, 1988), Gindikin V. I. (2000), Isaev D. N. (2004), Karvasarskiy B. D. (1990), Oganov R. G. (2004), Olbinskay L. I. (2004), Smulichev A. B. (2004), Strukovskay M. V. (1986), Topolyanskiy V. D. (1986). In addition to the above the emotional stress is allocated by majority of researchers as an independent type of stress, genetically different of stress physiological (Kassil, 1975), Lazarus R. (1970), Rusalova M. N. (1979), Kitaev-Smik L. A. (1983), Alexandrovskiy J. L. (1997). As Kameneckiy D. A. writes, the stressful factor in general is independent risk factor for development of all disorders having the psychosomatic nature (1). From the viewpoint of Koristov J. N. the emotional stress is the main reason of cardiovascular defeats, the neuroses, some diseases of stomach and intestines, it increases probability of infectious diseases and complicates their course" (2). In her book Novikova A. I. considers psychoemotional stress as a maim risk factor of progressing arterial hypertension, coronary heart disease, stomach ulcer of a 12-perstny gut and diabetes of the II type (3). Sudakov A. V. writes, that emotional stress is marked by generalized distribution of the sympathetic and parasympathetic excitation bringing one individuals to deterioration of cardiovascular system activity, others to an ulceration of a gastrointestinal path (4). Therefore origin of psychosomatic risk is closely connected with emotional stress-i.e. the stress caused by these or those emotional experiences, instead of the fact of existence of objectively stressful situation. Furthermore, natural-science researches reports indicate the relationship of psychosomatic disorders origins and previous stay of a person in a situation of a longstanding uncompensated stress. For example, Topolyanskiy V. D. and Strukovskya M. V. note that if a process of mental adaptation is insufficiently effective,

<sup>&</sup>lt;sup>1</sup> The North-Caucasus Federal University, Russian Federation

if process of mental adaptation is insufficiently effective, physiological components of emotions under emotional stress gain pathogenetic effect in formation of psychosomatic problems. The psychosomatic reaction of the personality on stress or frustration in a large measure is connected with chronic influence of frustration and a stress (5). From Beresin's F.B. point of view, emotional stress is indicated when an emotion gets such force or duration that an ability of a person to restoration of mental balance by means of resolving a stressful situation is insufficient (by changing the situation or changing attitude toward it). Process of resolving a stressful situation is essence of the mental adaptation that means existence of connection between probability of emotional stress origin as a longstanding and uncompensated and tendency of the person to experience of different emotions (6). This conclusion gives the grounds in the course of psychological investigation of a problem of determinacy of psychosomatic risk to place the main emphasis on studying of those personal disorders which, on the one hand, cause violation of mental adaptation, and on another-define tendency of the person to experience different potentially stressful emotions. However for implementation of system psychological research of the reasons of psychosomatic risk formation requires such description of emotional stress origin which would allow to investigate the main determining factors, and to develop complex system of prevention and psychomedical care to the persons, suffering psychosomatic disorders.

Unfortunately, in the modern psychological researches, dedicated to stress issues is not valuable for practice theoretical substantiation of the process of emotional stress formation. All psychological researches it is possible to divide into two groups. To the first group belong academic researches which don't give real opportunities for their implementation in medical and psychotherapeutic practice. For example, researches stress factors unlike with their classical behavioral explanation, which relies on external determination, consistently bring to understanding of that the stress is developed in time in the psychological space, defined by meanings and personal values (Lasarus, 1980; Vasiluk, 1984; Jaspers, 1997; Antsiferova, 1999; Janoff-Boulemane, 2001; Bek, 2002; Nurkova & Vasilevskay, 2003; Korjova, 2004; Magomed-Aminov, 2005; Trubitsyna, 2005; Maddi, 2006; Leontiev, 2007.). Leonova A.B. defines three main approaches to the analysis of researches of a psychological stress; ecological, transactional and regulatory approaches. Ecological approach corresponds to the level of the macroanalysis of manifestations of a stress and gives the complete description of risk factors in terms of the cause-effect relationships. Transactional approach is directed on the analysis of level of an intermediate mediation of stress by individual and psychological features of the person and personal experience of overcoming of stressful situations. Regulatory approach realizes microanalysis level for accomplishment of missions and psychological mechanisms of adaptation to stressful conditions (7). Another group represents researches the researches dedicated to specific questions within a subject of emotional stress. Within neuropsychological approach (to the problem of individual distinctions) specific features of reactions to stressful situations of persons with different profiles of the lateral organization were studied (8, 9). Works of R. A. Karasek were devoted to creation of the general theory of a stress at workplace (10, 11). On the ground of a control problem researches he constructed a hypothesis that experience of a stress arises at interaction between two factors-responsibility and control. In the research of the stress caused by interaction of the individual with equipment, Bodrov V. A. claims that any professional activity can generate the psychological reasons of a stress (12). There are researches of professional stress, organizational stress, ecological stress, family stress and "stress in individual life", processes of deterioration of activity at a stress, etc. The huge number of an empirical material about various private characteristics of a stress as psychological phenomenon is saved up-however this data can't be interpreted within any universal conception because of absence that. What that the question, for example, about by means of what mechanisms the stress which is initially adaptive reaction of organism, becomes long and uncompensated, it is possible to consider open.

Therefore a large number of theoretical and empirical natural science researches were devoted to communication "emotional experience-a longstanding stress-psychosomatic risk". Moreover, the fundamental conclusion that formation of psychosomatic risk is inseparably linked with tendency of the person to these or those emotional reactions was drawn (6). However during psychological research of this relation, which could give the chance to reveal the risk of developing of these or those psychosomatic disorders at a person, there is a number of difficulties arise. These difficulties are defined by an insufficient readiness as subjects of the mechanism of a longstanding uncompensated stress origin, and a subject of substantial classification of various emotional experiences.

# 3. The Existed Classification of Emotional Experiences as a Basis for Research into the Causes of Psychosomatic Risk

Based on data of psychophysiological studies confirming the link between the tendency of the person to experience specific emotional reactions (13), it can be argued that for development of a theoretical framework

for a fair description of the laws of a particular occurrence of psychosomatic risk is strictly necessary classification of existing emotional experiences.

Only with such a classification can be to find answers to the following questions significant for adequate description of the formation of psychosomatic risk:

- what specific emotions can be considered forming a longstanding noncompensated stress;
- how empirical study of these emotions should to be organized;
- what external and internal factors induce the person to experience such "stressful" emotions;
- how it should be organized an empirical study of the propensity of a particular person to a particular type of nosology psychosomatic reactions.

Creation of such a classification is greatly complicated by the two objective facts. Firstly, in various languages, the number of words indicating emotional experience, significantly differs. This means, that allocation of their qualitative content not depending on cultural features and caused by only objective psychophysiological components, is interfaced to very considerable difficulties. Secondly, the very lexical content of each emotional experience, determines the possibility of the use of the appropriate verbal sign, is also not well defined-that, in turn, creates serious problems for theoretical study.

As a result, the actual level of a problem of quality content of different emotional feelings at the moment cannot be considered sufficient for creation such classification. In the literature, there are a considerable number of classifications, but none of them does not solve the problem stated above, significant for the theoretical and empirical study of the formation of specific psychosomatic risk. Thus in the psychology nevertheless there is some initial theoretical groundwork for the creation of the necessary classification: K. Izard in his study formulated required properties of basic emotions:

- such emotions have distinct and specific neural substrates;
- they are indicated by means of an expressive and specific configuration of muscular movements of the person (mimicry);
- them necessarily follow a clear and specific experience, which is recognized by person;
- such emotions should be the result of evolutionary and biological processes;
- they must have an organizing and motivating effect on the person, to serve his adaptation.

However, K. Izard, naming ten basic emotions (anger, contempt, disgust, sorrow, suffering, fear, guilt, interest, joy, shame, surprise), recognizes that certain emotions, referred them to the base, do not have all of these symptoms. Thus, the emotion of guilt does not have a clear mimic and pantomimic expression (14). Close to this position stay division of emotions created by R. Plutchik, who divides emotions on primary and secondary (the latter is meant a combination of two or more primary emotions). Thus, for secondary emotions he carries the pride (anger + joy), love (joy + acceptance), curiosity (surprise + acceptance), modesty (fear + acceptance), and so on. While his classification contents (besides the emotions) personal qualities (modesty), and even acceptance (15).

Classification of Vilunas V. K. (16) divides the emotions into driving and situational. Leading emotions signalize the unmet needs and encouraged to search the target. Situational emotions arise as a result of assessments stages of behavior and encourage any act in the same direction, or change the behavior. Situational emotions are divided into three groups:

- acknowledged success -unsuccess;
- anticipating success-unsuccess;
- generalized success-unsuccess.

Easy to see that such classification does not give any reason for the systematization of emotional experiences in their substantive content, or for exploring the human propensity to experience these or other of them.

Simonov's P. V. classification is based on the nature of the action-overcoming, defense, aggression. For those emotions, that do not fit into this classification he allocates quantitative characteristics of size of requirements and an assessment of its satisfaction.

And those emotions which can't enter neither the first, nor in the second group Simonov P. V. considers as the sum of two emotions (for example, contempt = disgust + anger) (17).

Other classifications are based on allocation of any certain signs and aren't exhaustive.

For example, B. Byhat identified three characteristics of emotions: hedonic tone, or the sign of emotion (positive or negative), ready for action (relaxation-tension) and the level of activation (calm-excited) (18).

G. Shlosberg classified emotions on the basis of acceptance-repulsion (19).

In Roseman's work seventeen emotions are defined by various combinations of seven signs: expected-unexpected, consecutive-inconsistent, notwishing-wishing, high probability-low probability, high-low control, characteristic-uncharacteristic source of a problem, connection of a problem with an environment or with a person (20).

#### 4. The Proposed Classifications of Emotional Experiences

In addition, all these works don't consist approaches to the strong separation of different types of emotional experiences which are presented, nevertheless, in the literature (basic emotions, emotions, feelings, attitudes, states). It can be assumed that the mere selection of similar types of emotional experiences associated with different ways of experiencing a human of the same quality specific emotional content. And as for the formation of psychosomatic risk precisely prolonged stress is significant, the creation of such a classification of emotional experiences (which would make it possible to study the process of formation of psychosomatic risk) presupposes the need to describe various types of such experiences.

Therefore, as a first necessary step towards the creation of such kind of classification, we propose the following classification of the types of emotional experiences: emotions, feelings, relationships, and states. The easiest way is to define the states: they can be defined as a scalar emotional experiences perceived by person as subjectively uncontrollable. Scalarity here (by analogy with math) is understood as a lack of focus on the experiences of anyone or anything. All other phenomena of a human emotional sphere, as we will show below, are by nature vector, it emanate from the person himself and something directed to.

It is important to note that all the words that describe the phenomena of the emotional sphere of a person (except already mentioned states), when used require some additions: *admire someone despise someone to grieve for someone*, etc. We call this characteristic focused on a certain subject experiences belonging to the category of feelings, victory.

In turn, the characteristics necessary to distinguish feelings and relationships, can be regarded as the degree of stability: some emotional experiences can be easily changed under the influence of the slightest change of the object to which they are directed, while others remain unchanged for a long time, regardless of any changes in this subject. For example, a certain joy at the event is able to instantaneously disappear if you change some of the characteristics of the event. At the same time, a person can be saved even if the changes respect the idea of it-until such time as such changes do not reach a certain critical level.

Based on these two characteristics, we propose to define a sense as a vector experience, changing after a single change the subject, calling it, and the emotional attitude-as a vector experience robust to single changes in object at which it is directed. It is clear that the latter definition is only suitable for those relations that can be called emotional-such as *contempt* or *trust*. At the same time, it cannot extend to social relations, that are also very important in the context of the study of personal position in a social interaction-such as, for example, impact\_usage, subordination, preference, etc. Such relationships may not have a component, which could be defined as an experience, and appear at the same time only in the form of some specific effects. We can say that the emotional and social relations are connected only by understanding of the relationship as a property, wich arises and exists only in the interaction of two or more fragments of reality.

However, from our point of view, any classification of this kind can be regarded as a strict only if this separation will be allocated an objective criterion. Therefore, in our study for the classification of the various phenomena of the emotional life, we propose to use the linguistic characteristics of words designating the Russian language in the manifestation of the emotional sphere of person.

We estimate several dictionaries of the Russian language for the purpose of identify the nouns that describe the phenomena of human emotional sphere. In total, it has been found about eighty of these nouns (except obsolete and rarely used). They were divided from a linguistic point of view, in three different groups.

The first group of nouns is characterized by the inability to form from them a verb in the active voice (*inspiration, guilt, curiosity*, etc.). This means that the person in this case does not take such their emotional experience as a result of their own actions.

Nouns belonging to this group have and other expressed characteristics of usage: about them, you can either say "stay in inspiring", "be confused", etc., or to form a passive participle of them-"encouraged", "confused". Accordingly, from a linguistic point of view, these words referred to the phenomena of the emotional sphere just act as scalar experiences that have a grammatical passive voice.

Strictly speaking, this scalarity is subjectively perceived-in the sense that a person does not consider himself the source of this condition. The second group includes nouns, which can be formed to the verb in the active voice, characterized by the recurrence category (anger-to be angry, joy-to be enjoy, shame-ashamed, etc.). Category of recurrence in Russian language reflects some specific contents, one of which-the focus some action on the subject of this action.

This characteristic, in our opinion, gives to us the reason to include nouns of the second group to category of feelings as emotional actions which on the one hand, are initiated and authorized by the person, and the other-are directed to him by himself.

The third group selected by us are nouns, from which it is possible to form an irreflexive verb in the active voice (disgust-I disgust, malevolence-I gloat, regret-I regret, etc.).

Proceeding from grammatical characteristics, it is possible to tell that similar nouns describe such phenomena of the emotional sphere of person which are fully initiated and authorized by him, but are directed-unlike feelings-outside.

From this point of view, we propose to consider the nouns belonging to the third group, the relationships. Separate consideration should be paid to the division of the terms which often are used as synonyms,-emotions and feelings. In addition, this issue is closely adjacent to the theme selection of basic emotions-as well as the issue of whether it is worth to divide emotions and basic emotions.

In the proposed classification to separate emotions and feelings we use their specificity for human. The experience of some concrete emotions is similar-to external displays and the context of their occurrence-for humans and higher mammals. To these emotions we may include indifference, curiosity, joy, anger, fear and sadness. All these emotions precisely correspond to the vital needs of both animals and humans:

- indifference is typical for situations where none of the perceived stimulus is not perceived neither as positively significant nor as negatively significant, and therefore energy costs represented to an individual unreasonable;
- curiosity arises in situations where there is some unclear stimulus that triggers an orienting reflex;
- joy is experienced in situations where there is an opportunity to fill some urgent need;
- anger is experienced in situations where filling the urgent needs something or someone interferes;
- fear is experienced in situations in which there is a threat to life or physical integrity;
- sadness arises in situations in which there are no any opportunity to fill some urgent needs.

This description, from our point of view, provides enough opportunities to explore the functions of the emotional sphere in the formation of various psychosomatic risks (21).

#### 5. Conclusion

Conclusion. All of the aforesaid leads us to draw some conclusions about the state of the problem of psychosomatic risk determination at the present time.

Firstly, we should note the absence in the psychological literature of such kind of definition of stress, which could identify the psychological content of this term-in contrast to the comprehensive studies of its physiological content. It was shown above that the existing division of stress on physiological and emotional does not contain a concrete phenomenological and psychological differentiation and justification for such allocation. In the modern psychology there is no a model of origin and continued existence of emotional stress, which would be consistent with the requirements to model as a tool for scientific knowledge.

Such requirements, which formulated the epistemology suggest that the model should on the one hand reflect all the most significant characteristics of the object being modeled, and on the other-to give additional possibilities to study it.

This means that the required model should allow to describe those mechanisms of origin and continuation of emotional stress, which cannot be deduced from the external manifestations of this stress.

Further, the development of ideas about the emotional stress suggests the classification of human emotional experience to their substantive content and the method of their experiences.

In addition, it should be noted that the mere principle of systemacity as one of the basic methodological principles of psychology assumes the integrity of a way of explaining the mental phenomenon.

Consequently, a further description of the language of psychology requires a mechanism for the formation and psychosomatic illness as a result of prolonged emotional stress.

Therefore, the mechanism of formation of a psychosomatic disorder as a result of longstanding emotional stress requires additional development in psychology.

And finally, the issue what makes a stress longstanding and emotional uncompensated still stays unclear. Impossible to confirm without further justification, that emotional stress (as opposed to physiological stress) certainly is not constructive, and the more maladaptive. As a preliminary hypothesis can be assumed that a person's ability to find a constructive way out of stressful situations affect some features of his personality. That is, for a comprehensive study of topics of interest to us is necessary to identify the personality features that determine the possibility of uncompensated stress origin-and, consequently, the formation of psychosomatic risk.

Thus, we can conclude that for the psychological study of problem individual person's predisposition to the origin of a psychosomatic risk previously required to solve several theoretical problems.

The first of these problems-the need for a rigorous and sophisticated definition of emotional stress, which would provide the essential criterion for distinguishing between adaptive and non-adaptive stress.

The second task-to create a classification of human emotional experiences that addresses the following reasons:

- the qualitative content of experience;
- the way of his experience (or quantification of its contents);
- the reason for its origin.

The third task-to create a model of origin and existence of emotional stress, which would give the opportunity to:

- to propose a criterion for distinguishing between constructive and unconstructive emotional stress;
- to describe the differences in the causes and mechanisms responsible for the adaptive emotional stress and emotional stress, with the characteristics of duration and uncompensated;
- to identify the emotional and personal characteristics of a person that influence the characteristics of a stress typical for him.

Only after the solution of these three tasks the main task can be solved-the task of creating a psychological model of the formation of psychosomatic risk that meets the following requirements:

- would allow to explain the mechanism of formation of such risk;
- would give the chance to describe the reasons of formation of various psychosomatic risks;
- would create a basis for the development of appropriate diagnostic techniques.

Thus, a significant empirical study on the psychological reasons for the formation of psychosomatic risk cannot be carried out before the necessary theoretical base will be provided.

In our opinion, the absence of such theoretical conception explains the lack of elaboration of this issue, the practical value of which is difficult to overestimated.

In our opinion, absence of such theoretical concept explains insufficiency of a readiness today this subject which practical value it to overestimate.

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# Stock Market Screening: An Analogical Study on Conventional and Shariah-Compliant Stock Markets

Gholamreza Zandi<sup>1</sup>, Dzuljastri Abdul Razak<sup>2</sup> & Nur Hidayah Hussin<sup>2</sup>

Correspondence: Gholamreza Zandi, Graduate School of Business, SEGi University, Kuala Lumpur, 47810, Malaysia. Tel: 60-3-6145-3148. E-mail: zandi@segi.edu.my

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#### **Abstract**

Benchmarking Shariah-Compliant stocks listed in Bursa Malaysia, this paper examined whether the stocks which are approved by SACSC are also considered as Shariah-Compliant under International Indices. 35 top Shariah-Compliant stocks listed in Bursa Malaysia were examined against four stock screening criteria of DJIM, MSCI, FTSE and S&P. Due to the differences in stock screening criteria, the factors evaluated that lead to variances in Shariah-Compliant status for a particular stock. The results from the test indicate that Shariah-Compliant stocks listed in Bursa Malaysia are not necessarily Shariah-Compliant stocks in the four Indices of DJIM, MSCI, FTSE and S&P. The high debt and low market capitalization are the main factors of dropping the Malaysian Shariah-Compliant stocks by the four Indices. The three stages of screening which carry the most Islamic stock screening process include screening on industry, income statement and balance sheet.

**Keywords:** Shariah-compliant, market capitalization, indices, screening, industry

#### 1. Introduction

#### 1.1 Research Problem

In every country, equity market is very important as one of economic generation mediums. Due to that fact, efficiency and effectiveness in equity market system must be properly installed. Screening methodology is one of the essential elements that need to be improved from time to time in order to ensure that the equity market could generate the most possible return to the economy as a whole. This is because, based on screening criteria, stocks are classified as Shariah or non-Shariah compliant stocks. The status of a particular stock would affect investors' decision particularly Muslim investors. Definitely, Shariah-Compliant stocks would cater a wider range of investors, thus resulting in higher demand, given that the stocks are performing well. As compared to non-Shariah stocks, even though the stocks are giving up higher return, Muslim investors cannot buy and thus it might slow down the trading of the stocks. The equities which are in compliance with the Shariah Investment Requirements perform better than conventional equities especially when markets are down. The better performance of Islamic Compliance Companies can stem from the Shari'ah screening criteria which prohibits any involvement in shares of those companies that are excessively leveraged and/or engaged in lending activities (Ashraf & Mohammad, 2014).

Muslim investors in the current arena are very much concerned on halal income earned. As such, the Islamic finance system should be geared in such a way that could provide confidence towards these investors. In reference to equity market, the most general business activity is stock trading. In buying and selling stocks, it is crucial to ensure that the stocks are classified as Shariah compliant. With the existence of different stock screening, it might generally affect the confidence of the investors in taking part in this business activity. Furthermore, current studies have yet to cater all these five screening methodologies and thus the conclusion of which factors that determine the different status are to be studied in this paper.

Some prominent scholars have suggested that there is a need to standardize the screening methodology in order to obtain global Shariah stocks. By having a standard stock screening methodology, investors from all over the world can trade without the need to check the compliant status for every stock exchange. This will encourage foreign investments and thus expanding the world economy. Nonetheless, in current system, each stock

<sup>&</sup>lt;sup>1</sup> Graduate School of Business, SEGi University, Malaysia

<sup>&</sup>lt;sup>2</sup> Department of Finance, International Islamic University Malaysia, Malaysia

screening provider has its own developed methodology which differs with each other. Due to the differences, this paper would like to discuss the similarities and differences and examine the number of Shariah stock compliance approved by SACSC that are also approved by four different Indices namely Dow-Jones Islamic World Market (DJIM), Morgan-Stanly Compliance Islamic Index (MSCI), FTSE Shariah Index (FTSE), and Standard and Poor Shariah Index (S&P).

The differences in the methodology have triggered the idea of this study. However, based on articles that are available, researches were done mostly in regarding to the comparison of performances, risks, and such between conventional and Islamic equities but rarely in examining Shariah screening criterion. Due to this, it is hoped that this research will bring another strong impact on the mentioned matter. In addition to that, this study is done with a belief that Shariah status for a particular stock is very important as it reflects the faith in the Almighty God. It is clear that Usury is prohibited in Islam and human must obtain the growth of their wealth in a rightful manner. This study will focus on Usury as it is reflected by debt and liquidity nature of business. Because of its crucial element in the spirit of Islam, this study will examine whether the compliant status of the Shariah-Compliant companies under Securities Commission are also holding Shariah status after benchmarking with Islamic screening criteria practiced by individual International Index.

Much research are done in analysing the Shariah stock screening (Nathie, 2008; Haron & Nursofiza, 2008; Dusuki & Abdullah, 2009; Jamal et al., 2010; Shamsuddin, 2014; Ashraf & Mohammad, 2014) but in this study, we extended analyses to the four International Stock Screening Providers of DJIM, FTSE, MSCI and S&P. Shariah-Compliant stocks listed in Bursa Malaysia are examined against these four different benchmarks. This research aimed on information of benchmark level of debt and liquidity of the companies considered as Shariah-Compliant stocks. In addition to that, since the stocks are analysed for each Index, companies that are interested to expand business outside Malaysia and concern on Shariah-Compliant status can use the finding to forecast which stock exchange they can register in.

#### 2. Literature Review

Islamic finance is currently an emerging science and well-developing area of study. The significance of Islamic finance is due to many people beliefs that it can be the best alternative for conventional finance. In order to provide solution to the weakness in the conventional banking and financial system, many people are becoming alert to the resilience of Islamic finance as a feasible alternative. In addition, Islamic finance is deemed to operate in the line with the Shariah.

Shariah is a broad term to describe a system that consists of every aspect of livelihood. It includes ethics and values of personal, social, political, economics, and intellectual (Dusuki & Abdullah, 2009). All practices in life must be accordance to the sources of Islamic Law (Shariah) which are the Quran and the Sunnah (the Prophet's traditions). These traditions are considered normative actions which then will be passed on from one generation to another (ISRA, 2011).

As the world gets older, many new inquiries, interrogatories, issues and problems emerged at later time. Given that the two main sources have not clearly covered the wider scope of life and thus the justifications and answers are unavailable. In order to have solutions to the problems, particularly contemporary solutions, other seven sources are authorized to be considered as sources of Shariah. The sources are, written in order, Ijma, Qiyas (Analogical Deductions), Istihsan, Istishab, Maslahah Mursalah (Public Interest), Sadd al-Dhara'I (Blocking the Means to an Evil), and 'Urf (Customary Practices) (ISRA, 2011).

It is emphasized in Dusuki and Abdullah (2009), the deep understanding of Shariah requires the determination of its' comprehensive objectives "to allow flexibility, dynamics, and creativity in social policy." The flexibility, dynamics, and creativity in social policy are needed elements in facing further developments as different timeframes would require different rulings due to the upcoming needs of people. The determinations of its' comprehensive objectives have given a signal to change Shariah solutions from time to time. However, the changes must be approved by Shariah scholars (Jamal et al., 2010).

After a comprehensive discussion on Shariah, it is undoubtedly to agree that methodology used in Islamic finance is changeable over time. In addition, the methodology can also be different from one particular scholar to another due to scholars' different background and area of living. In some cases, their organizations' objectives do influence the decisions and it is acceptable as long as the decision does comply with Shariah.

One of the methodologies which are a concern of this study is Shariah stock screening. In current Islamic finance system, many Index providers created and marketed (Haron & Nursofiza, 2008). The providers can be Index providers as well as country's Shariah Advisory Council. In this study, five Shariah stock screening providers

will be discussed namely Dow-Jones Islamic World Index (DJIM), Morgan-Stanly Compliance Islamic Index (MSCI), Financial-Times Stock Exchange Shariah Index (FTSE), Standard & Poor Shariah Index (S&P), and Shariah Advisory Council of Securities Commission (SACSC). The Shariah stock screening is essential in order to classify stocks to be listed in Indices. The Dow Jones Islamic Market indices (DJIMI) are constructed by screening out stocks that are incompatible with Islam's prohibition of interest and certain lines of business. However, as a blunt instrument, the interest rate can affect discounted cash flows of any firm, even a firm with no financial leverage (Shamsuddin, 2014).

These Shariah stock screening providers have come out with different kinds of screening methodologies which will be explained in the next chapter. The issue that might arise from the differences is which one of these methodologies is the best or the most 'Islamic' way of conducting Shariah stock screening. Since these methodologies might be changed over the time, the effect on the stocks' performance could be one of the determinants to modify the screening methodologies because the change in the benchmarks will result in the change in asset universe. Asset universe refers to stocks that are listed in the Index. However, according to Nathie (2008) equity market does not be influenced by the change of compliant status. Yet, as Islamic finance has gained much awareness from public including Muslim investors, the compliant status has become one of the indicators in deciding the purchase of the stocks.

According to a study on Islamic Equity Indices from year 2000 to 2012 by Ashraf and Mohammad (2014), there was not seen any abnormal returns related to the Islamic Equity Indices. The less systematic risk in comparison with their benchmark representing that the better performance stems from the systematic risk that each investment presumes with respect to their benchmark.

By having said that, the quantity of stocks demanded by Muslim investors will affect the movement of the demand and supply and thus resulting in price determination. One situation that can explain this is when in the case of the stocks turn into non-compliant stocks; Muslim investors have to sell off the stocks (Dusuki & Abozaid, 2007). It increases the supply for the stocks and if given that the demand does not change, the price of the stocks will go down. This situation shows that Shariah-Compliant status is one of significant determinations of the stock performance.

Due to its importance, this study aims to dig more on Shariah screening issues. The approach of this study will include Shariah-Compliant stocks approved by SACSC listed in Bursa Malaysia as it will be used as benchmark to calculate the compliant status from these four methodologies. The main difference between SACSC and these four screening methodologies are the use of balance sheet as part of the screening benchmark (Alhabshi, 2008). Balance sheet items particularly liquidity and leverage are not part of the screening in SACSC as their focus mainly on prohibited income i.e. prohibited income earned by subsidiaries or associates (Huzairi, 2009).

This paper will study each screening methodology and explore their differences and similarities. As far as the study is concerned, prohibited income benchmark will not be tested as it is assumed that as long as these stocks have been considered as Shariah compliant under SACSC, thus, prohibited income will not be an issue since it has been filtered out. In addition, the different status of the same stock will also be analyzed and discussed. This study will also conclude the factors of differences in Shariah-Compliant status among these Indices. Subsequently, the most 'Islamic' screening methodology will be indicated.

#### 3. Research Methods

This study is exploratory and descriptive in nature and based on a study by Rahman et al., (2008) regarding Islamic norms for stock screening of the Bursa Malaysia Islamic Index and the Dow Jones Islamic Market Index.

The differences between SACSC and International Indices are the two financial measures which are liquidity and debt ratio. In addition, timeline research will be done in order to measure the consistency of the compliant status. The Shariah-Compliant stocks listed for three years under Securities Commission Malaysia from 2009-2011 constituted our sample.

#### 3.1 Sampling and Data Collection

The population of the study consisted of 839 Shariah complaint companies under Securities Commission as at November 2011. To rationalize the study, top 100 Shariah compliant companies are filtered. The top 100 companies are chosen to ensure the relevancy of these companies to expand their business internationally. In addition to choosing the 100 companies, in order to enhance the relevancy of expanding businesses globally, companies are filtered by removing companies that are not consistently Shariah-Compliant for three years. After removing companies that did not have complete information and were not Shariah-complaint stocks for the three years, the final sample is 35 companies with large market capitalization out of 100 large market capitalization

companies. The selection is based on available data for the financial statement as well as the listing in Bursa Malaysia from 2009-2011. After the sample was determined, the stocks were tested against the benchmarks and compliant statuses for each Index obtained. Furthermore, the factors behind the non-Shariah compliant were analysed based on the testing results. The financial measures are calculated based on each Index Shariah Stock Screening Methodology. It is summarized as per Table 1.

All balance sheets data are gathered by using data stream provided by the University Technology Mara (UiTM)'s library. For market capitalization, monthly prices from 2007 to 2011 are compiled and it was then averaged according to the ratios i.e. 36 months and 24 months.

Table 1. Financial measures of DJIM, MSCI, FTSE & S&P

	Dow Jones Islamic Market	Morgan-Stanly Compliance Islamic	Financial Times Stock Exchange	Standard & Poor
	Acc Rec/24Mth MA Market Cap. < 33%	Total Cash + Account Receivables/Total Assets < 33.33%	Acc Rec + Cash/Total Asset < 50%	Acc Rec/36 Mth MA Market Cap < 49%
Liquidity Ratios	Cash + Int Bearing Sec/24 Mth MA Market Cap. < 33%	Cash + Interest-Bearing Sec/Total Assets < 33.33%	Cash + Int Bearing Sec/Total Assets <33%	Cash + Int Bearing Sec/36 Mth MA Market Cap. < 33%
Debt Ratio	Total debt divided by trailing 24-month average market capitalization < 33%	Total Debt/Total Assets < 33.33%	Total Debt/Total Asset < 33%	Total Debt/36 Mth MA Market Cap < 33%

#### 4. Results and Findings

The data finding will be presented into 3 years. Data presented determines the stocks' compliant for each year and the timeliness provides consistency of the compliant status. This is significant evidence where companies in the sample could use the consistency to measure their feasibility to be listed internationally by maintaining its capital structure and its liquidity level.

Table 2.

		DJIM	MSCI	FTSE	S&P	
	2009	X	X	X	X	
Ann Joo	2010	X	X	X	X	2009, 2010 & 2011 NSC due to high debt
	2011	X	X	X	X	
<b>.</b>	2009	X	/	/	X	2000 2010 0 2011 NGC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Bandar Raya Development	2010	X	/	/	X	<b>2009, 2010 &amp; 2011</b> NSC due to low market capitalization
Development	2011	X	/	/	X	Capitalization
BIMB	2009	X	/	/	X	2009, 2010 & 2011 NSC due low market
	2010	X	/	/	X	capitalization and high cash and
	2011	X	/	/	X	interest-bearing securities
	2009	X	/	/	X	2000 0 2010 NGC 1 1 1 1 1 1 1
Dijaya	2010	X	/	/	X	2009 & 2010 NSC due to low capital market
	2011	X	X	X	X	<b>2011</b> NSC due to high debt
	2009	X	X	X	X	
<b>Duta Land</b>	2010	X	X	X	X	2009 & 2010 NSC due to high debt
	2011	X	/	/	X	·
Eastern & Oriental	2009	X	X	X	X	2009, 2010 & 2011 NSC due to high debt

		DJIM	MSCI	FTSE	S&P	
	2010	X	X	X	X	
	2011	X	X	X	X	
	2009	/	/	/	/	
Gamuda	2010	/	/	/	/	
	2011	/	/	/	/	
	2009	X	/	/	/	
IJM Land	2010	/	/	/	/	2009 NSC due to low market capitalization
	2011	/	/	/	/	
	2009	/	X	X	/	
IOI Corporation	2010	/	/	/	/	2009 NSC due to low total assets
•	2011	/	/	/	/	
	2009	/	/	/	/	
Kuala Lumpur	2010	/	/	/	/	
Kepong	2011	/	/	/	/	
	2009	X	/	/	X	
KLCC Properties	2010	X	/	/	X	2009, 2010 & 2011 NSC due to low market
TEE C 1 Toperties	2011	X	,	,	X	capitalization
	2009	X	X	X	X	
Kumpulan	2010	X	X	X	X	2009, 2010 & 2011 NSC due to high debt
Perangsang	2011	X	X	X	X	andlow market capitalization
	2009	/	/	/	/	
Lafarge	2010	/	/	/	/	
Latarge	2010	/	/	/	,	
	2009	/	X	X	/	
Lion Diversification	2010				/	2009 NSC due to low total assets
Lion Diversification		/	/	/	/	2009 NSC due to low total assets
	2011 2009	/ V	/	/	v	
I to a Tarlandata		X	/	/	X	2009, 2010 & 2011 NSC due to low market
<b>Lion Industries</b>	2010	X	/	/	X	capitalization
	2011	X	/ 3/	/ 37	X	
Malaysian	2009	X	X	X	X	2009, 2010 & 2011 NSC due to high debt and
Resources	2010	X	X	X	X	low market capitalization
	2011	X	X	X	X	
	2009	/	/	/	/	2010 NSC due to low market capitalization
MISC	2010	X	/	/	X	<b>2011</b> NSC due to high debt
	2011	X	X	X	X	
	2009	X	/	/	X	2009, 2010 & 2011 NSC due to low market
MK Land	2010	X	/	/	X	capitalization
	2011	X	/	/	X	•
	2009	X	X	X	X	<b>2009, 2010 &amp; 2011</b> NSC due to high cash and
NCB Holding	2010	X	X	X	X	cash equivalent
	2011	X	X	X	X	· · · · · · · · · · · · · · · · · · ·
	2009	X	X	X	X	2000 2010 P. 2011 NGC day to high
Padiberas	2010	X	X	X	X	<b>2009, 2010 &amp; 2011</b> NSC due to high account receivables and high total debt
	2011	X	X	X	X	receivables and ingli total debt
	2009	X	/	/	X	2009, 2010 & 2011 NSC due to low market
Parkson	2010	X	X	X	X	capitalization
		X	X	X	X	2010 & 2011 NSC due to high cash and cash

		DJIM	MSCI	FTSE	S&P	
						equivalent
	2009	X	/	/	X	
Pelikan	2010	/	/	/	/	2009 NSC due to low market capitalization
	2011	/	/	/	/	
	2009	/	/	/	/	
<b>Petronas Gas</b>	2010	/	/	/	/	
	2011	/	/	/	/	
	2009	/	X	X	/	2009 NSC due to low total asset
RimbauanSawit	2010	X	/	/	X	2010 & 2011 NSC due to low market
	2011	X	/	/	X	capitalization
	2009	X	X	X	X	2009 NSC due to high debt
Scomi	2010	/	/	/	/	2009 & 2011 NSC due to high account
Scom	2011	X	/	/	/	receivables in (it is SC in S&P due to bigger range i.e. <49%
	2009	/	/	/	/	
Sime Darby	2010	/	/	/	/	
	2011	/	/	/	/	
	2009	X	/	/	X	2000 2010 8 2011 NGC due to law montret
Sino-Hua An	2010	X	/	/	X	<b>2009, 2010 &amp; 2011</b> NSC due to low market capitalization
	2011	X	/	/	X	cupitulization
	2009	/	X	X	/	
SP Setia	2010	/	X	X	/	2009 & 2010 NSC due to low total asset
	2011	/	/	/	/	
	2009	/	X	X	/	
Star Publication	2010	/	/	/	/	2009 NSC due to low total asset
	2011	/	/	/	/	
	2009	X	X	X	X	2009 NSC due to high debt
Telekom	2010	X	/	/	X	2009, 2010 &2011 NSC due to low market
	2011	X	/	/	X	capitalization
	2009	/	/	/	/	
Time Dot Com	2010	/	/	/	/	
	2011	/	/	/	/	
	2009	X	X	X	X	2009 NSC due to high debt
Tradewinds	2010	X	/	/	X	2009, 2010 & 2011 NSC due to low market
	2011	X	/	/	X	capitalization
	2009	/	X	X	/	
Trinity	2010	/	X	X	/	<b>2009, 2010, 2011</b> NSC due to low total asset
	2011	/	X	X	/	
	2009	/	/	/	/	2010 0 2011 NGC 1 4 1
UMW	2010	X	/	/	X	<b>2010 &amp; 2011</b> NSC due to low market capitalization
	2011	/	/	/	X	captunzation
	2009	X	X	X	X	4000 4010 4011 NGC 1
YTL Power	2010	X	X	X	X	<b>2009, 2010, 2011</b> NSC due to high debt NSC due to low market capitalization
	2011	X	X	X	X	due to low market capitalization

Note: SC is referred as Shariah-Compliant, NSC is referred as Non-Shariah Compliant.

After a detail computation of the ratios, the final conclusion is derived and presented in the table above. Each company is tested against ratios of each Index for that Index. The tick (/) represents that the company is Shariah compliant while the cross (X) mark represents non-Shariah compliant. In addition to the test on Shariah compliant, the factors that cause the non-Shariah compliant are also analysed.

Table 3. Number of Shariah-compliant stocks

Index	2009	%	2010	%	2011	%
DJIM	14	40.00%	14	40.00%	14	40.00%
MSCI	18	51.43%	24	68.57%	24	68.57%
FTSE	18	51.43%	24	68.57%	24	68.57%
S&P	17	48.57%	14	40.00%	14	40.00%
Sample: 35						

The Table 3 represents the number and percentage of Shariah compliant stocks of these four Indices as opposed to companies listed in Bursa Malaysia according to years. Based on the table II, there is consistency of number of Shariah compliant stocks in each Index. At most, 68.57% of the companies are considered as Shariah compliant under MSCI and FTSE while at most only 40% and 48.57% of the companies are considered as Shariah compliant under DJIM and S&P respectively. It does reflect that if these companies would like to expand their business outside Malaysia and be listed as Shariah compliant stock, they could retain the liquidity and debt ratio.

The companies are shown in the Table 4.

Table 4. Sample of Shariah-compliant stocks

		DJIM	MSCI	FTSE	S&P
	Bandar Ra Development	ya	/	/	
	BIMB		/	/	
	Gamuda	/	/	/	/
	IJM Land		/	/	/
	IOI Corporation	/			/
	Kuala Lumpur Kepon	g /	/	/	/
	KLCC Properties		/	/	
	Lafarge	/	/	/	/
	Lion Diversification	/			/
Consistently Shariah Compliant Stocks in 2009,	Lion Industry		/	/	
2010 & 2011	MK Land		/	/	
	Pelikan		/	/	
	Petronas Gas	/	/	/	/
	Sime Darby	/	/	/	/
	SP Setia	/			/
	Star Publication	/			/
	Sino-Hua An		/	/	
	Time Dot Com	/	/	/	/
	Trinity	/			/
	UMW		/	/	
Total		11	15	15	12

From the Table 4, there are 11 companies that can register in DJIM, 15 in MSCI and FTSE, and 12 in S&P. Thus, by indicating which Index they could register, it provides them a signal of the ability in expanding business outside Malaysia. These companies could also use the finding to choose which stock exchange they could register. Furthermore, there are 6 companies classified as Shariah compliant consistently in three years in all International Indices. The companies are Gamuda Berhad, IOI Corporation Berhad, Lion Diversified Holdings, Petronas Gas Berhad and Time Dotcom Berhad. These companies are the most possible stocks to be globally accepted as Shariah compliant stocks.

The differences in the percentage of Shariah compliant stocks can be explained by having different divisors. MSCI and FTSE use total asset as divisor while the other Indices use market capitalization as divisor. As proven in the table above, total asset could be a better divisor in measuring the ratios since it does include more Shariah complaint stocks. Moreover, it has no direct inevitably effect from the change of share price, thus resulting in a stable asset universe in the Index.

On the other side of the issue, despite from using the same divisor between DJIM and S&P, it is proven that different use of trailing month resulted in different numbers of Shariah stocks as shown in the table, S&P holds bigger number of stocks as compared to DJIM of 48% and 40% respectively due to the reason that S&P uses 36 trailing-month market capitalization as compared to DJIM which uses 24 trailing-month market capitalization. As mentioned previously, the longer the tailing month would result in bigger divisor thus reducing the ratios.

Table 5. Fa	actors affecting	non-Shariah	compliant
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Factors	2009	2010	2011	Total
High Debt	9	6	7	22
Low Market Capitalization	10	12	11	33
Low Total Asset	6	2	1	9
High Cash and Interest Bearing Securities	1	2	3	6
High Account Receivable	1	1	1	3

Apart from finding on the compliant status in three years, another analysis that can be synthesized from the research is the factors that are affecting the non-Shariah compliant status. From the observation and as summarized in the Table 5, the most frequent factor that affects the non-compliant status is due to low market capitalization. It is consistent with the result of lesser number of Shariah compliant stocks under DJIM and S&P as opposed to MSCI and FTSE. The second factor that affects the non-compliant status is due to high debt. This explains the reason of not all Shariah complaint companies under KLSE are Shariah compliant under other Indices. Other three insignificant factors that affect the non-Shariah compliant are low total assets, high cash and interest bearing securities, and high account receivables.

The Islamic sector portfolios have less interest rate risk exposure compared to the Dow Jones World sector indices, their mainstream counterparts, in terms of the sensitivity of the DJIMI return to changes in level, slope and curvature of the interest rate term structure (Shamsuddin, 2014).

#### 5. Discussion and Conclusion

The Shariah-Compliant stocks under SACSC are also considered as Shariah-Compliant under International Indices if they follow the ratio test. Based on the ratio test in 2009, 14 and 17companies are considered as Shariah-Compliant stocks under DJIM and S&P respectively, while 24 companies are Shariah-Compliant stocks under both FTSE and MSCI. In 2010, 14 companies are Shariah-Compliant under DJIM and S&P and 24 companies in FTSE and MSCI. In 2011, the number of Shariah-Compliant stocks is maintained for each Index i.e. 14 companies in DJIM and S&P and 24 companies in FTSE &MSCI. This indicates that the FTSE and MSCI have resulted in higher number of Shariah-Compliant stocks as compared to DJIM and S&P.

After determining the status of each company, the factors that lead to non-Shariah compliant were examined. From the results, the highest factor that contributes to non-Shariah compliant is low market capitalization. It reflects the lesser number of Shariah-Compliant stocks in DJIM and S&P as a result of using market capitalization as their divisors.

Furthermore, the second highest factor that affects the compliant status is high debt. Due to high debt, many companies were unable to pass the benchmark used in each Index. Because of this, not all companies listed in

Bursa Malaysia as Shariah stocks were also considered as Shariah stocks in International Indices. Apart from these two significant factors, the other three insignificant causes are low total assets, high cash and interest-bearing securities as well as high account receivables.

The most 'Islamic' stock screening methodology is to have 3 stages of screening. For the first stage, industry screening is a must and it seems not much controversial on the issue. All screening providers have included the first stage in their screening. The second stage is screening on income statement. This is also important to ensure that the company's income is generated through Halal activities. After passing the screening, the last stage is to screen the balance sheet. In this case, two controversial items which are debt and liquidity should be included as part of the screening. The ratio should generally agree to be less than 33%.

After a complete investigation in this study, it is firmed that Securities Commission's benchmarks are developed in order to provide high number of Shariah compliant stocks listed in Bursa Malaysia. The reason behind that is to encourage Muslim investors to participate in equity market. The involvement of Muslim investors in equity market is important since it increases the number of traders as well as playmaker in the industry. Consequently, the equity market moves. From the result, is it proven that SC has not taken balance sheet as part of its screening since it will downsize the number of Shariah-Compliant stocks. In addition, taken the issue into consideration, a high number of Shariah-Compliant stocks are needed due to the fact that has been mentioned above.

Nonetheless, there are many other benefits that can be barely seen when debt and liquidity ratio are included as part of the screening. By having such ratios as part of screening, the integrity of Islamic stocks will be strengthened. Consequently, it will increase investors' confidence in Islamic finance. This is very crucial since in this current time, there are strong understanding and awareness among investors as well as public as a whole. Furthermore, when debt is taken as part of screening, companies will tend to avoid taking financing from banks. Generally, debt would bring bad impacts in the economy when it has to be paid with an extra amount because money will be created out of nothing to back it up. When it happens, no real economy is generated and only fiat money is created to pay the debt and as a result, inflation will occur.

Given a simple scenario mentioned above, it is crucial for debt ratio to be included as part of the screening as subsequently banks, entrepreneurs and companies will be encouraged to get involved in profit and loss sharing investments. This will cultivate and instil the essence of 'real' Islamic finance where partnership or profit and loss sharing are highly recommended in the system. In addition, according to Nisar and Khatkhatay (2007), equity market is very close to the genuine Islamic profit-sharing investments. Hence, the inclusive of debt ratio is the screening will generate a better Islamic finance system as well as the economic system as a whole. Apart from debt ratio, liquidity ratio is also significant to be included in the screening benchmark. This is because companies will have a better collection on account receivables. The lesser amounts of account receivables generate lesser liquidity ratios. As such, companies will have an opportunity to pass the screening. In addition to that, by investing the money in proper investment channels, the economy will move. Due to that, companies will avoid holding much money and thus they will have the chance to pass the liquidity screening. Since the inclusion of interest-bearing securities is part of the screening, companies will avoid investing in such investments and in return, they will invest in Islamic securities and hence, the Islamic finance will develop further. In discussion the ratios, one issue to be highlighted is the basis. As mentioned in the previous section, DJIM and S&P use market capitalization as the basis of the ratios, while MSCI and FTSE use total assets as the basis. According to the finding, MSCI and FTSE have resulted higher number of Shariah-Compliant stocks as compared to DJIM and S&P. Total assets is a better basis due to the reason that it does not be reflected by market forces. As compared to market capitalization, it is exposed to market condition as it can change in a split second. By having total assets as the basis, the asset universe will be more stable and appropriate. Nonetheless, those who are against total assets mentioned that the balance sheet items are not appropriate due to the fact that accounting could be manipulated and the availability of the figures could only be known at the end of the year. However, total assets will be the best basis because of its stability. In addition, to argue the manipulation of accounting, it could not be true because procedurally, before the financial statement is published, companies have to send the completed financial statement for auditing. Once auditing is done, the credibility of financial statement would increase and it is a practice in most of the companies that financial statement is prepared periodically. Due to this, there is no reason that the financial statement is not available at the time of screening. For example in Securities Commission, the periodic screenings are in May and November and since Securities Commission will have the authority to request for the financial statements, total assets is the most practical basis to be used in the screening ratios.

In a nutshell, SACSC may want to redevelop the screening methodology by including the debt and liquidity ratios. By the inclusion of debt and liquidity ratio, Islamic finance could have been better in the future. In

addition to that, total assets are a better basis as compared to market capitalization. Apart from advantages mentioned above, the use of total assets will eliminate the choice of trailing months. As DJIM and S&P use different trailing months, it creates a gap in Shariah-Compliant status, thus reducing the credibility of Islamic stocks as well as destroying investors' perception on Islamic stocks. Hence, it is essential for Shariah stock screening providers to include debt and liquidity ratios a part from prohibited income.

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### Concept of Human and Nature in Kazakh Poetry

Akbota Abiyr<sup>1</sup> & Perizat Berikbolova<sup>1</sup>

<sup>1</sup> Faculty of Philology and Educational Sciences, Suleyman Demirel University, Kaskelen, Kazakhstan

Correspondence: Akbota Abiyr, Suleyman Demirel University, 1/1 Abylaikhan Street, Kaskelen, 040900, Almaty Province, Kazakhstan. Tel: 11-70-1953-5700. E-mail: abiyr@mail.ru

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#### Abstract

Since the early age, the human has been attempting to understand the mysteries of life and to find the answer to the eternal question through interaction with the surrounding nature. It was the original decision of the human to attempt discovering the many secrets of the elemental forces occupying the enormous environment, which he feared. The first teacher of the human was the nature, and the first thing it taught the human was the ability to perceive.

In the XXI century, a young generation of poets came in who continued to pursue what their seniors had begun and were able to give it a new breath and dynamic energy. In lyrics, it takes great poetical perception to amalgamate the human and the nature and describe them beautifully by way of antithesis.

**Keywords:** figurative pattern, lyrical character, lyrics, mythological thinking, poetry

#### 1. Introduction

The nature poetry has developed depending on each nation's beliefs, lifestyle and everyday life. The society may change, the history may change, but the nature will always remain in the same infant, innocent, cloistral state. The nature is common, but the perception is always different.

In the written Kazakh poetry, Abai's oeuvre is the standard of psychologic parallelism, nature portrayal. Such pieces of poetry as S. Seifullin's Kokshetau, I. Zhansugurov's Zhetisu Suretteri (Zhetisu Scenes), modern poet F. Ongharsynova's Kuzdin Songy Kunderi (Last Days of Autumn), K. Akhmetova's Aghashtar (Trees) penetrate the Kazakh readers' minds, blend into their objective reality, and coalesce into nature.

In the modern Kazakh poetry, the poetry of nature is in its renaissance period. Depiction of the nature passed through the prism of feelings in comparison with the specifics of human's nature, its presentation through good and bad deeds of human, and demonstration on the personal level are being actively mastered in today's poetry of youth.

Barky smoke arm's doing its muscle-flexing,

Greyish sky's so dark midday and it's so vexing.

Whitebeard Mountain's got a cold and is sneezing,

And the sombre fog is even more suppressing.

(Askerbekgyzy, 2008)

Dolour must be eye's "abyss"

It will make the Moon go yawl.

(Anthology of young poets' writings, 2000)

The wind is bravely scampering around the foot,

The clever mother Earth is lying mute.

Like a baibishe (Note 1) wrapped up in a white cloth,

The steppe lies as if clad in a white snow suit.

(Sarybai, 2007)

According to A. Blok, "That who spots the lines ordinary people's eyes cannot get a sight of, and whose mind penetrates deeply into and feels the nature's secrets behind the outer surface thereof, is a real word painter" (Askerbekqyzy, 2008). In the above verses, we particularly note an exceptional sensitivity in feeling the seasonal scenes and mastery in turning such feelings into characters. In the process of depicting certain season, the poet not only cognizes the nature but also adapts it to his own world and passes it through himself. Let us turn our attention to the character of Moon in the lyrical poetry of nature as written by poet Almas Temirbai. The poet interweaves the nature with Almas's own mood, musings and dolour, i.e. the theme's framework is the character of a man, and it's unveiled and developed through the aid of such symbolic as the natural elements, mainly the moon, the sun, or the night.

#### 2. Discussion

In a mythical mind typical for the era of mythological thinking, the entire nature is perceived as a living, conscious spirit. The belief that holds the human and the nature to be equal and that the nature has all the feelings and states of mind that the human has such as thinking, mourning, rejoicing is known to be the basis for figurative, allegorical, inkling meanings in the imaginative thinking system. The subject of our consideration, the moon, is also one of the natural phenomena, namely one of its instants, moments. In the poet's work entitled Peshene (Note 2) the underlying motive is the human's whispering with his own thoughts and arguing against the outside world's facts, and coming with the answer to the rhetorical question of "Should I escape Myself or should I escape the Life?" in the form of the Other (the "Other" here is another man, society) and the Death. General answer in the poem is given in the following verses: "If I run away for light, Where am I supposed to go?! Earth is just a huge graveyard, With the Moon atop although,"-and the character of the Moon play the role of the poem's attribute. In the poem, the Moon is a thing character; however, in poetical terms it has the attribute of the earth's light, or torch.

It is worth noting that the Moon related characters are used quite frequently in the modern poetry. The Moon is perceived as a lyrical subject. Of course, in the first place the Moon is, in the real life, a celestial object that can be seen at night, glow, reflect light, and change its form and phase. Conceptual meanings of the Moon are:

- it is an existing object that can feel the emotions attributed to the human;
- it relates to the movement of time;
- it is contrary to the Sun.

In the interpretational meaning, the Moon has emotional and aesthetical components. In terms of emotional concept, the Moon negatively affects the spirits of a lyrical subject. Dominating emotions of the Moon include dolour, sorrow, solitude, stress, hopelessness, heartache. Some real-life things are cognized through emotional, affective moods, internal feelings in the human mind.

In terms of the aesthetical concept, the Moon actively participates in and contributes to the emotional description in the imaginative cognition. The Moon's rays, light, secrecy, mystery, beauty are especially descriptive as the aesthetical category. In the writings by Maraltai Raiymbekuly, the Moon apparently exerts a special influence on the poet's mood.

When the Moon was full, into mischief I ran,

Grieving is my heart, and I was left alone.

See it from the waves on the full Moon,

I am breathing fire into air.

Don't you keep yourself aloof, my shining Moon?

Please come out and let me shelter your bright light.

There was a swan-like girl, so beautiful,

But she must have flown away, what can I do?! (Issadil, 2012)

In an impulse to the Moon,

I entrusted secret my,

Stars have also drawn a sigh,

And called my secret "lonesome."

Feel with us, the old Moon,

Favour us, the young Moon.

Let the sunset be always red,

Let the sunrise be always bright. (Temirbai, 2008)

In the national being of the Kazakhs, it is a well-known pre-Islamic tradition to converse, to talk with the Moon through greeting every young Moon, i.e. saluting a safe arrival from one Moon to another. The Moon is a symbol of our Islamic custom. It is no coincidence that the poets have in their writings prayers devoted to the Moon.

The character of the Moon that is frequently encountered in the Kazakh poetry takes its origin in the national traditions. Starting from the ancient beliefs and worshiping Tengri through more recent adoption of Islam, the character of the Moon continues to be a special totem. The human have worshiped the Moon and created a whole system of beliefs about it. The Turkic peoples have never kept aloof of the nature and have always perceived it as a whole. Turkic people in 'Kultegin' and other runic monuments entrusted the following 'I inspired on the eternal stone everything. I wanted to say. Having looked at it is aware of that. Everything is written all around the stone.' (Monuments, 2001) They have strengthened their beliefs by forming a deific, mystical, faith tradition through such religious practices as worshiping and deifying the sky, earth, moon, fire, water. One of the named objects is the Moon. A tradition has developed to believe in the Moon, to worship it, to make wishes and offer prayers through the Moon. Secondly, the Moon has turned in the human minds into a good omen as a reference object that delivers from the evil of the night, protects against the dark, and beacons the strayed. As Almas says in his The Moon in support of the foregoing:

Bismillahi, bismillahi... Go to sleep,

Go to sleep and sleep you tight and sleep you deep.

In the morning, so excited like full Moon,

Break my whole new day in a bright peep-(Temirbai, 2008)

the poet offers a beautiful picture of the Moon in reply to his young daughter's request before going to sleep: "Daddy, can you please bring me the moon?" In the following verses, he uses very skilfully the entire understanding and beliefs accumulated during centuries in his Kazakh mind.

So you told me: "Daddy, I'll support,

Bring it, please, I want to play with it."

But the Moon is the forefathers' life-long dream,

And, my dear, the dream may not be played with! .. (Temirbai, 2008)

By concluding his poem with the following words: "Now, my sweet child, go to sleep, and you'll see in your dream your father bringing you the moon," Almas is seen as an aqsaqal (Note 3) giving his blessing to a little child, and through this image one can trace the similarity between the moon and the human. While worshiping a thing or phenomenon or existence is scientifically referred to as the "fetishism," Almas has beautifully depicted it poetically. In the modern Kazakh poetry, the character of the Moon has become a wholly typical character and takes a special place in the poetry of youth. The poets take the Moon for a human and, as poets, share their secrets and dolour with it.

I have roamed a lot in sorrow in a big town,

Much to Moon's delight that smiled at me

(Issadil, 2012)

Moon moves not, it's at rest,

Who can cry when short of breath? .. (Askerbekqyzy, 2001)

See it from the waves on the full Moon,

I am breathing fire into air.

(Raiymbekuly, 2001)

The personification method has been used in the lyrical poetry in a range of its varieties and aspects. One can even say that this method takes the leading place in depicting and describing the human's mood, emotions and feelings at every moment, and his rejoice and dolour through natural phenomena. All of the nature's things and phenomena such as the moon and sun, wind, night, river, flower and so on, are reflected and depicted in the imaginative thinking by replacing them with the deeds attributed to the human, and by comparing and twinning

the same with them. And it is logical to search for the links of such applications in the imaginative thinking patterns coeval to the mythological thinking and human mind growth in the era when the ancient world view or, in other words, mythological mind dominated. Personification is the only way of unveiling a lyrical character's being. One can find a lot of such personifications reborn, revitalised in the modern Kazakh poetry. When we talk about personification, the first thing that needs to be discussed is the depiction of the natural phenomena and things, and in the poetical language the sky, clouds, night, wind etc. are described through human deeds. It is true that poetical decoration of the changes of mood, bittersweet feelings requires of the poet not only his mastery but also sensitiveness and keen perception. And when we talk about creation of beautiful patterns and the masterful painting in our modern lyrical poetry, the first name that comes to mind is that of a young generation representative, Maraltai Raiymbekuly. An example from his writings:

When the Sun rose from horizon it was upset,

And into my heart an anxious feeling's crept.

If a hand is extended to the lonely heart thereat

A finger is a blessing ray on it, as it felt. (Anthology of young poets' writings, 2000)

Just a moment of the nature's picture. But, while the poet expresses his own mood through "upset sun," a sudden picture of word expressed in "extended hand" and "finger being a blessing ray" can be regarded as attributes of our national poetry's power of imagination. Generally, the poet is prone to closely interact with the nature and to make it talk. His writings full of such personification demonstrate the poet's mastery in describing everything in the world of feelings through the nature's phenomena.

In the poet's writings, every single thing, every phenomenon is in focus and is involved in the poetical turn of speech. One of them is the Moon. And if the Moon is the fruit of the mythological era, mythical mind, Maraltai's poems are the works that were born of an imaginative thinking.

Depiction of the Moon in a poetical personification manifests in various ways in Maraltai's lyrical poetry. N. Orazalin prefaced M. Raiymbekuly's The Moon book of poems with the following words: "Poet Maraltai is close to dolour, woe, dark tones. Some may not like it. As to me, I don't think it to be a shortcoming. A pen that has never seen the ink of sorrow and dolour can produce nothing that is based on the bitter truth of life... So, if Maraltai is to prepare for tomorrow's peaks and summits, he needs to explore the breadth and depth of poetry through various creative processes and pursuits without fear." (Anthology of young poets' writings, 2000) Here, the result of the poet's research, the power of his gift comes to the forefront. If in his The Moon poem the poet says:

When the Moon was full, my heart just gave a sigh (Anthology of young poets' writings, 2000), -

in another writing he claims as follows:

When the Moon was full, into mischief I ran,

Grieving is my heart, and I was left alone.

See it from the waves on the full Moon,

I am breathing fire into air. (Anthology of young poets' writings, 2000) -

and, through these verses he expresses the mood of his lyrical character. Likewise, such natural phenomena as night, star and seasons are unique attributes of imagination special to the poet's style.

The poet's work entitled Zhas Zhuar (Note 4) was written entirely using the personification method. Through its expressive-emotional meaning, the expression "yearning look" shows the man's affection of the sky realm and the stars. The poet who desires to turn into a star in the sky, expresses his inner feelings and his heart full of dolour by the word "flaring" in the following lines, and continues by comparing his rejoice, admiration to the "buried laughter."

The down casting ephemera of the life, impermanence of the beautiful moments of nature are the motive of the above poem. When we look a bit deeper into the poem's substance, we can see the thrillingly depicted image of the star and its behaviour.

Yearningly watching the Pleiades...

(I wish that I'd be one of them!)

My flaring soul is full of grief,

And my laughter has dug itself (Anthology of young poets' writings, 2000)

#### 3. Conclusion

The foundation of the mankind's being is based on the nature. The man and nature is the target of all art works. Especially in mysterious songs the nature's every single feature is recited in various forms and turned into unique art image. The vivid example of that are Ai (Moon) and Zhuldyz (Star) which gained the status of images in contemporary lyrics of our young poets' poetry. The myths about sky and celestial bodies entered many poetical texts and caused the appearance of new type of images and gained scientific meaning.

First of all the mankind studies the nature, the initial feature that nation taught a man is a cognitive skill. The poetry develops according to each nation's concept, being and the way of life. Initially the concept that the nature is a live spirit made people think that they can speak with it, but eventually this concept served a significant role in the system of artistic thinking. The nature in contemporary Kazakh poetry is in the period of flourishing. The description of nature by thorough comparison of the mankind's being through the prism of consciousness, representation of the man's bad and good traits and delivering it on the level of personality is well developed in the contemporary Kazakh poetry.

In this article we can see that the devices which are used to make abstract concepts materialized, inanimate concepts animate and even abstract things animate are widely used in the contemporary Kazakh poetry. All these makes clear that the new and complex language is emerging.

In conclusion it becomes clear that the lyrics of nature described the phenomena of inner world of a man through psychological parallelism. The novelties in works of the poets of independence period were researched from artistic prospective, and the examples peculiar to the lyrical poems of poets were defined and analyzed as artistic devices formed in contemporary poetry.

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#### Notes

Note 1. Senior wife in polygamy.

Note 2. Destiny.

Note 3. An old man (literally "white beard").

Note 4. Tear Washer.

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# Semantic and Metasemantic Notions of Analyticity

Artur Ravilevich Karimov<sup>1</sup> & Valentina Alexandrovna Kazakova<sup>2</sup>

Correspondence: Artur Ravilevich Karimov, Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russian Federation. E-mail: arrkarimov@kpfu.ru

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#### Abstract

In this article the evolution of main conceptions of analyticity is analyzed. Kant's criteria for analytic/synthetic distinction are discussed. Frege and Carnap notions of analyticity are set out. It is shown that Frege and Carnap shifted the criteria of analyticity to the justificatory status of judgments. The notion of truth in virtue of meaning and its criticism is exposed. Critical arguments against analyticity by W. V. O. Quine are discussed. Williamson's arguments against traditional notions of analyticity are formulated. Williamson maintains that analytic truths are reduced to truths of other base classes-necessary, semantic or logical. It is shown that the stipulative definition of analyticity is vulnerable to Williamson's argument. Russell's conception of truth in virtue of reference determiner is exposed and evaluated. It is defended that the notion of truth in virtue of reference determiner is immune to many standard objections against analyticity.

**Keywords:** analyticity, meaning, stipulation, reference

#### 1. Introduction

Analyticity is one the most controversial concepts in the history of analytic philosophy. It became the center of the debate in the middle of XXth century. Despite the defense of analyticity from such prominent philosophers as Grice, Strawson and Putnam, for a long time after Quine's "Two dogmas" it was considered at best useless. In the last few years, however, there was a resurgence of interest in analyticity. We will concentrate on three different sources: the critical account of analyticity by a prominent British philosopher T. Williamson (2008) and two proponents of analyticity-G. Russell (2008), and C. Juhls and E. Loomis (2010). The purpose of the article is to trace the key steps of development of the notion of analyticity from Kant to our time and determine whether this development was in effect successful. In case of analyticity it is especially important to expose the history of the notion, because different philosophers had different conceptions of analyticity. So when someone uses the word "analyticity" it is not always clear what particular conception of analyticity is implied. As we will show, historically, the notion of analyticity is a semantic notion. Semantic notions have something to do with meaning and reference. And we will see that the history of analyticity was a gradual evolution from accent on meaning to accent on reference (reference determiner). We will examine some of the objections against analyticity and will see how different theories of analyticity deal with these objections. The notion of analyticity as truth in virtue of meaning met with some powerful objections in the XXth century. The main objection raised by Boghossian (and later Williamson) was that no truth is true only in virtue of meaning. We will examine two main strategies which were proposed to counter this objection. One strategy is metasemantic which consists in defining analyticity in terms of stipulation (Juhl and Loomis). The other strategy we will call the semantic strategy which consists in redefining the concept of meaning within the framework of extensional semantics to include the referent and reference determiner (Russell). Ultimately, we want to determine which theory of analyticity is the least vulnerable to the main objections.

# 2. Main Part

The notion of analyticity became the object for discussions in philosophy ever since it was introduced by Kant. Kant famously offered 4 criteria of analytic judgments (see Proops, 2005; Hanna, 2007). First, that the predicate of the sentence must be covertly contained in the subject. Second, that the subject and predicate of the sentence must be identical. Third, that it is contradictory to negate the predicate. Fourth, that analytic judgments clarify; they do not expand our knowledge. The examples offered by Kant are: "all bodies are extended in space" and

<sup>&</sup>lt;sup>1</sup> Kazan Federal University, Russian Federation

<sup>&</sup>lt;sup>2</sup> Kazan State University of Architecture and Engineering, Russian Federation

"gold is yellow metal". It is worthy of note that Kant's criteria for analyticity are not consistent with each other. For example, explicit tautologies, like "gold is gold", fit first through the third criteria, but don't fit fourth. Also, Kant seems to apply analyticity only to judgments of subject-predicate form. So if we take the sentence "If Socrates is mortal, Socrates is mortal", it would not be considered analytic by Kant's criteria. He explicitly distinguished between categorical, conditional and disjunctive sentences. It is not clear which of the criteria is more important. Some authors claim that it is the containment criterion and others that it is the contradiction criterion (Anderson, 2005; Proops, 2005). The containment metaphor itself is very ambiguous. What does it mean that the predicate is contained in the subject? It is subjectively determined or not? It seems that Kant himself thought of containment as a relation of two notions when one is contained in the logical extension of another. Since for Kant logical extension refers to notions (not objects), therefore the notion of "gold" is contained under the notion of "metal". But what guarantees that a notion is contained under the other? Unless we are willing to accept some kind of essential and necessary relation between objects, this form of containment is at least subjective. Of course, Kant was not willing to accept any kind of essences and famously defended that things-in-themselves are unknowable. Interestingly, in Kant's example he uses the empirical notion of "gold" which is clearly acquired a posteriori. Kant thought that we may have some analytic knowledge of objects which are known through experience. The problem with the empirical notions is that it is not at all clear whether their predicate is contained in the subject. Take the sentence "Water is H<sub>2</sub>O". It seems analytic and fitting all the criteria. But it is such only after the 18th century when the molecular structure of water was discovered. The other problem is that a lot of empirical knowledge is testimonial, so we refer to experts who guarantee that the predicate and the subject are one and the same thing. But for those who accept the testimony of experts it is not at all clear that it should be so. For someone who never conducted the appropriate experiment in chemistry class "Water is H<sub>2</sub>O" could be just as good as "Water is H<sub>3</sub>O" or "Water is H<sub>4</sub>O", as long as someone told them so and they were gullible enough to accept it. It is understandable why Kant didn't have a very clear notion of analyticity. For him, the most important were synthetic a priori judgments.

Moving forward, we must make a brief discussion of analyticity as understood by Frege and Carnap, because they were transitional to modern discussions about analyticity (see Dummet, 1991; Rey, 2013). Frege criticized the notion that analytic judgments can be mere covert or explicit tautologies. While for Kant all analytic judgments are definitions, Frege distinguished what he called Definition and Erklärung (real definition). Definition is concise denotation. This is a logical procedure which does not introduce new knowledge, e.g. "a straight line is the shortest line between two dots". On the contrary, in real definitions we fix the referent each time differently. Real definitions change, expand, become richer. To give a new definition is to take a different look at the object. Therefore, though definitions are analytic judgments they are by no means trifling propositions, as Locke would say. Definitions can be based on experiential basis, i.e. a posteriori, or have conceptual origin, i.e. a priori. In natural sciences no investigation would help us to deduce from the notion of a physical object any predicates analytically. For mathematics the story is different. The initial postulates of mathematics are introduced conventionally; therefore, they themselves and deductions from them are purely analytic. Interestingly, for Frege arithmetic was analytic, but geometry was synthetic. The definition of analytical judgment for Frege is that it should follow from definitions or laws of logic. This means that analytic judgments are either definitions or logical truths. This definition of analyticity is what later was called Frege-analyticity. The main result of this definition is the shift from epistemic role of analytic judgments, as it was with Kant, to their justificatory status. If a judgment is justified without recourse to experience it is analytic. Otherwise, it's synthetic. In other words, synthetic judgments are about the world, while analytic judgments are about concepts.

Initially, Carnap supported Fregean notion of analyticity and subsumed analytic truths under the category of logical truths (see Carnap, 1928, 1947; Friedman, 1999). This he called the syntactic notion of analyticity, because analytic truths are deduced from sentences by rules of logical syntax alone. Already in his "Logical syntax" Carnap introduced the notions of L-analyticity and P-analyticity. L-analytic sentences are Frege-analytic, while P-analyticity corresponds to physical analyticity. P-analytic sentences contain not only logical terms, but also descriptive terms, e.g. "gas volume increases in proportion to its temperature". But his key work is "Empiricism, semantics and ontology". In this work a purely semantic notion of analyticity is established. The main concept which he discusses is the concept of linguistic framework. He distinguishes between two types of questions: questions within the given linguistic framework and questions about the linguistic framework itself. The example of the first kind would be "Is there a prime number after 100?" To answer this question we only need to defer to our theory of numbers. To this he contrasts the question "Are there numbers?" Here we don't have any theory to defer to, so this question becomes meaningless. How does that affect the notion of analyticity? Within a given framework a sentence can be analytic while within the other framework it would be synthetic. Take the law of contradiction itself-that p and not-p cannot be true together. It is analytic within the framework

of classical logic and not analytic within the framework of intuitionist logic. This relativizes analyticity against a particular linguistic framework. To this Carnap adds the notion of meaning postulates. A truth based on a meaning postulate is different from a logical truth. The example of a logical truth would be "All bachelors are bachelors". The example of a truth based on a meaning postulate would be "All bachelors are married". In the latter sentence you only need to know the meaning of the word "bachelor" to agree with this sentence. These sentences are true in virtue of meaning alone. Carnap formulated the "traditional" definition of analyticity - truth in virtue of meaning.

The notion of truth in virtue of meaning was subject to harsh criticism, particularly, by W. V. O. Quine in his "Two dogmas of empiricism" (Quine, 1951). Let's examine briefly what the criticism was about. Quine had two lines of criticism against analyticity. The first one is to show that the notion of analyticity as truth in virtue of meaning alone is meaningless. The second line, which he adopted later, was to admit some form of analyticity but claim that it has no real value for epistemology. There are several objections which were raised against analyticity by Quine but the most important is the argument from holism. The argument from holism consists in denying any special status to a particular sentence within the web of belief. If we have a very strong theory and a fact which contradicts that theory, we can either ignore the fact or change the theory. Suppose there is someone who has never met any swans, but white. Suppose, he is presented with a black swan. Should he change his opinion about swans? Not necessarily. He could just as well name black swans "bswans" and say that it is a whole new species of birds. What about the sentence "All swans are white"? Is it analytic or synthetic? They are both, on Quine's account. How bad is this for the theory of analyticity? We would say that this is a good argument for not accepting any of the empirical sentences (based on observation and containing natural kind terms) as analytic. But with this provision the theory of analyticity still stands against this particular objection. The second important objection, raised by Boghossian, is that no judgment can be true solely in virtue of meaning (Boghossian, 1996). It has to be true in virtue of what the world is like, too. Take a simple tautology: "gold is gold". Usually, it is said this sentence is true in virtue of being a law of logic, namely the law of identity. But isn't it also true that in reality gold is gold, in reality things are identical with themselves. So, the sentence "gold is gold" is true not only in virtue of the law of logic, but in virtue of how things really are in the world, even though its truth was already determined by the meaning of that expression.

A number of strategies were proposed to counter this argument, but the best strategy was outlined by G. Russell (2008). She distinguished between different kinds of determination. They are full determination, conjoint determination, partial determination and redundant determination. For our purposes we will not examine this distinction in detail. Just as an example, the sentence "Today's temperature is 30 degrees Farenheit" is fully determined by what the world is like. But the sentence "gold is gold" is only redundantly determined by what the world is like. To be redundantly determined is to be determined by something when it is already determined by someone else. To explain this, we can borrow "the chip in the head" example from the discussion about free will and slightly modify it. Suppose there are two hunters who simultaneously shoot and kill a duck. Each of the shots would have killed the duck, so we can say that the other shot was redundant. Thus, we can say that the fact that the duck was killed was redundantly determined by the shot of the hunter X, because the hunter Y has already made a successful shot. If the hunter X didn't shoot for some reason, the hunter Y would have killed the duck. To convert this example for our purposes, we can say that the sentence "gold is gold" is redundantly determined by the world.

Even if there is a meaningful notion of analyticity it is not clear whether it has any use in epistemology. Kant recognized analytic judgments, but he denied that they can serve any purpose for cognition. In the following paragraphs we will examine some criticisms that deny any useful sense of analyticity. Quine himself later came to recognize that analytic sentences can be meaningful. He advanced the notion of stimulus-analyticity. A stimulus-analytic sentence is one which a subject would assent to in every relevant situation. This presupposes the community of speakers of a language. Stimulus-analytic sentences are behavioral reactions which come from dispositional character of consciousness. But this is a very weak notion for Quine, since it is just a behaviorist "ersatz" of the philosophical notion of analyticity. Stimulus-analyticity would apply to anything that most people would accent to, e.g. the sentence "There have been black dogs".

More recently some powerful objections against analyticity were advanced by T. Williamson (2008). Before we consider them, we have to explain the difference between metaphysical and epistemological analyticity, following Boghossian (1996). A sentence is said to be metaphysically analytic if it is true in virtue of meaning alone. By contrast a sentence is epistemologically analytic if anyone who understands it is justified in taking it to be true. The first one is a stronger sense of the term, while the second sense is weaker.

Let's consider some Williamson's arguments against metaphysical analyticity first. Williamson claims that there

are no such truths as analytic truths. Any account of analyticity shifts the burden from explaining analyticity to explaining knowledge of some base class of truths: necessary, logical or semantic. Let's examine what he calls modal-analyticity. Modal-analytic truths are truths whose meaning is sufficient for truth. Are modal-analytic truths also necessary? If we take any necessary proposition, even an empirical one, its actual meaning will be sufficient for its truth, e.g. "water is H2O". So, we can call necessary truths modal-analytic, too. This, of course, does not mean that they are merely linguistic or conceptual. Water is really molecules of H<sub>2</sub>O. But the connection between analyticity and necessity is not straightforward. Not all necessary truths are modal-analytic, e.g. "I am not Tony Blair". There are also contingent sentences that are modal-analytic, e.g. "It is raining if it is actually raining". If it wouldn't have been raining it wouldn't also have been actually raining. One could say that these examples are marginal and the core of philosophical truths is modal-analytic and necessary, but again this doesn't show why they should owe their truth to linguistic or conceptual meaning and not to some deep metaphysical necessity. Similarly, Frege-analyticity is based on the notion of logical truth. But logical truths are a separate kind of truths which are not in any way insubstantial or merely verbal. If some truth is logical, it doesn't mean that it poses no constraint on the world. As we have seen earlier with the notion of necessity, the notion of logical truth doesn't need the notion of analyticity to explain its truth. What if we defer to synonymy for explanation of analytic truths? Suppose, we have a clear notion of meaning and synonymy and we tried to explain analytic sentences as sentences with synonymous expressions. Here we face a problem with referential expressions which are synonymous on the standard theory of referential theory of meaning for proper names. If Hesperus and Phosphorus are synonymous, everyone should assent to the sentence "Hesperus is Phosphorus". But astronomically ignorant person would be in no position to know that Hesperus is Phosphorus even if he knows the meaning of the expressions "Hesperus" and "Phosphorus" individually. Therefore, synonymy would be a bad explaination for analyticity. It seems that the notions of necessity, logical truth and synonymy together and individually cannot explain analyticity.

If the metaphysical notion of analyticity is so controversial, then may be a weaker notion of analyticity will be defensible? The epistemological notion of analyticity requires only that whoever hears an analytic sentence will assent to it. This notion explores the link between understanding a sentence and the disposition to assent to it. To this Williamson gives an example of logical truth which would typically cause someone to assent. The example is a sentence "every vixen is a vixen". Typically you would say that whoever understands this sentence assents to it. But there is a counterexample. Suppose, someone doesn't believe in vixens and at the same time believes that sentences with the universal quantifier are existentially committing. This person would not assent to this sentence on the ground that there are no vixens, so any sentence about vixens with the universal quantifier for that person would be false.

Juhl and Loomis proposed that the best case of analyticity would be explicit stipulative definition (Juhl & Loomis, 2010). Suppose, we stipulate that 'frenchelor' is a French bachelor. First of all, no empirical evidence can count in favor or against the statement "Frenchelors are French bachelors". This statement is true and indefeasible and it is true in virtue of meaning alone. Also, the metalinguistic sentence "The sentence 'All Frenchelors are French bachelors' is true" is also empirically indefeasible. The first objection to the stipulative definition of analyticity would be that it has no pragmatically useful role. Why would we need to introduce such terms as 'frenchelor'? In answer to this it can be said that even if this were true, it would have no bearing on whether there is a coherent notion of frenchelorhood. The fact that we have no useful role for the notion of "phlogiston" does not mean that we don't have a perfectly coherent notion of "phlogiston", or similarly, "witch". The next objection against stipulative definition of analyticity is again raised by Williamson and it is more powerful. To appreciate this objection we must make the distinction between semantic and metasemantic facts. Semantic facts are facts about meaning. That "Frenchelors are French bachelors" is semantics, but the fact that "Frenchelor" was introduced by someone saying "Frenchelors are French bachelors" is metasemantic. But, as Williamson shows, the act of stipulation makes the sentence true in a trivial way-it is standard contribution of meaning to truth. The fact that "water" in English was introduced to refer to water and "H<sub>2</sub>O" was introduced to refer to molecules of H<sub>2</sub>O does contribute to the truth of the sentence "Water is H<sub>2</sub>O", but in a very trivial way. What is left? At best, our saying that "all Frenchelors are French bachelors" means that French bachelors are French bachelors, but that is a logical truth and we have seen that logical truths are a separate kind of truths. The stipulative meta-semantic notion of analyticity is a compromise in order to save the a priori status of analytic truths. In this sense, analytic judgments lose their substantial philosophical role and become what Locke called "trifling propositions". But analytic sentences need not be necessarily a priori as maintained in the classical definition of analyticity. As we will show, the concept of analyticity remains even if analytic judgments are a posteriori. This will require a substantive change in the notion of meaning which was made in the late XXth century by a number of philosophers mentioned below.

A radical move was needed to save analyticity and this move was made by G. Russell. She distinguished four different components of meaning: content, character, reference determiner and extension (Russell, 2008). Difference between content and character is best seen in demonstratives: 'I', 'here', 'now'. Kaplan was first to make distinction between content and character (Kaplan, 1979). He identified content with Fregean sense, i.e. function from possible worlds to extensions. Character is a function from context to content. Character determines that in different contexts an utterance expresses different content. Character also plays another important role-it is a part of meaning that a speaker must know in order to be considered competent with the word. So, if content of 'I' is an agent of utterance, the character of 'I' is a rule for determining that content, given the context of an utterance. For sentences the content will be the proposition it expresses. Reference determiner is what fixes the referent of a term, it is a condition an object must meet in order to fall into the extension of an expression. For demonstratives it would be context of utterance, for predicates-the context of evaluation, for proper names-context of introduction of the term. For Russell, the sentence is analytic not in virtue of content or character, but reference determiner. It happens if "for all pairs of context of introduction and context of utterance, the proposition expressed by S with respect to those contexts is true in the context of evaluation" (Russell, 2008, p. 56). "Bachelors are unmarried men" will be a good candidate for analyticity on this account. The reference determiner for 'bachelor' is the condition that the objects which it applies to be male and unmarried in the context of evaluation. The reference determiner for proper names is the condition that it applies to the object which the baptizer demonstrated when first introducing the name. Does the notion of analyticity as truth in virtue of reference determiner avoid the above-mentioned arguments against analyticity? At the very least, it avoids all objections against the epistemic notion of analyticity, because one need not assent to analytic truths defined as true in virtue of reference determiner. Reference determiners need not be known to the subject who uses the term. It avoids the objection of shifting explanation to the notions of necessity and logical truth. It also avoids objections against synonymy, because "Hesperus is Phosphorus" would not be analytic in this sense, since "Hesperus" and "Phosphorus" would have different reference determiners. And it avoids the standard objection that no truth can be true solely in virtue of meaning by introducing the notion of redundant determination. This result is largely based in adoption of extensional semantics instead of intentional semantics which was used by Carnap and other logical positivists in early XXth century. If the extension becomes part of the meaning of the expression, then the reference determiner is also a part of the meaning. But both are independent of the epistemic status of the knower, therefore the knower doesn't have to have any a priori access to the truth of the expression.

The afore-mentioned Kaplan's distinction between content and character paved the way to two-dimensional approach to semantics. Two-dimensionalism is a theory based on possible-world semantics which adds a second dimension to meaning. Traditionally meaning and extension were tied to our actual world. A second dimension evaluates the expression against a counterfactual world. The sentence "I am the 44th president of the United States", uttered by Barack Obama is assessed not only by the context of utterance (in this case, the person pronouncing the sentence), but also by the circumstance of evaluation-which world is considered actual. In our world W<sub>0</sub>, considered as actual, this sentence is true. But in a world W<sub>1</sub>, where John McCain won the election, considered as actual, this sentence is false. The sentence "Water is H<sub>2</sub>O" is true if our world is taken as actual. But it is false in a world where water is XYZ, if that world is taken as actual. If we add actuality operator "A" we can construct necessary a posteriori truths, such as A (Water is H<sub>2</sub>O). We have seen that the sentences containing indexicals, such as "I am here now", are always true in every context of evaluation. This means that their truth is established a priori. At the same time, this sentence is not cognitively insignificant and is a matter of empirical discovery. The same works for modal operators. How does this help with understanding analyticity? We have seen that Kripke severed the connection between analyticity, aprioricity and necessity. There is a way in which 2D-semantics helps to reinstall that connection. The idea is that we have a priori access to the reference-fixing criteria of the expressions in our language, but we only have a posteriori access to the modal profile of these expressions. This means that we can give a priori definitions to those terms the extension of which we don't understand (Lewis, 1970). This idea gives support to the whole concept of conceptual analysis, or so-called "armchair reasoning". However, 2D-semantics has been the object of harsh criticism for the last decade (Schroeter, 2012).

#### 3. Conclusions

In this article we have examined different notions of analyticity, starting from Kant. We saw that Kant's criteria of analyticity, especially the containment metaphor, were criticized for subjectivity and vagueness. Frege defined analyticity as what follows from logic and definitions alone. For Frege the main criterion for analytic/synthetic distinction is the justificatory status of a proposition. Carnap relativized analyticity by introducing the notion of linguistic frameworks. With his notion of meaning postulates he also defended (what would later be called) a

standard definition of analyticity as truth in virtue of meaning. The notion of truth in virtue of meaning became the object of sharp criticism from Quine. We saw that the objection from holism can be swallowed by admitting that all empirical sentences are synthetic. The argument that no truth can be true solely in virtue of meaning can be countered by the notion of redundant determination. We have considered Williamson's arguments against modal-analyticity and Frege-analyticity. Williamson maintains that the notion of analytic truth shifts the burden of justification to other classes of notions-necessary truths or logical truths. We have also examined the stipulative notion of analyticity, advanced by Juhl and Loomis. This notion rests on metasemantic facts about language that arguably make trivial its contribution of meaning to truth. The positive result of the meta-semantic strategy is that it avoids the main objections raised against the traditional notion of analyticity but at the cost of reducing analytic judgments to trifling propositions. Finally, we looked at Russell's definition of analyticity as truth in virtue of reference determiner. We have maintained that it avoids many of the standard objections against analyticity. The main objection was that the truth of the expression is always determined by what the world is like. But since we introduced the extension and the reference determiner into meaning that objection became pointless. At the same time, analytic judgments defined this way, retain their epistemically valuable status.

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# Problems and Issues in Corporate Restructuring in the State-Owned Construction Sector in Vietnam: The Case of VINACONEX

Nguyen Ngoc Thang<sup>1</sup>

Correspondence: Nguyen Ngoc Thang, 144 Xuan Thuy str., Cau Giay dist, Hanoi, Vietnam. Tel: 84-94-661-1417. E-mail: thangnn@vnu.edu.vn

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#### **Abstract**

The study of corporate restructuring in state-owned enterprises has been a hot topic in the academic world. However, little study has been done in investigating the corporate restructuring in state-owned enterprises in Vietnam. This study is devoted to exploring the problems and issues of corporate restructuring in a specific construction company in Vietnam. This study aims to investigate what problems and issues arise in the corporate restructuring of a construction company. A typical five-level Likert item questionnaire was designed for the data collection. Data from 398 respondents show that the company's restructuring decision was determined by the company's internal and external factors. VINACONEX needs to pay more attention to management training for managers and to carrying out technological innovation. From the findings, we propose some solutions to deal with problems arising from the restructuring of VINACONEX. The results of the study provide more evidence for the theories about corporate restructuring and contribute to the growing knowledge in strategic management by using a specific Vietnamese case. In this study, we also draw some limitations and recommendations for future research.

**Keywords:** corporate restructuring, state-owned enterprises, VINACONEX

#### 1. Introduction

Vietnam embarked on the *Doi Moi* (renovation) policy in 1986. Since then, the country has experienced radical changes, first and foremost in its fundamental economic thinking. The centrally planned economy à *la* the Soviet Union was replaced by a market economy, albeit of a socialist character, which started with a sweeping restructuring of the state-owned sector. This allowed the private sector to join the economy, which facilitated the process of full integration into the region and world mainstream. The *Doi Moi* (renovation), economic growth, competition and globalization, along with tightened fiscal policies are causing both the private and public sector Vietnamese enterprises to strive for greater efficiency and higher cost-effectiveness. In many cases the desired results cannot be achieved without subjecting the corporate strategy and structure to some transformation. In this context, restructuring is no longer just an option. It is a necessity for survival and growth (Cascio, 2002).

Privatization and restructuring of the state-owned enterprise (SOE) sector in Vietnam is intended to concentrate state ownership and control on a core of large enterprises in strategic industries while withdrawing state ownership and support from small and medium-sized enterprises. SOE restructuring is closely linked to the economic restructuring of the enterprise sector as a whole and to corporate governance reforms (CIEM, 2006). Creation of the strategic core of large SOEs involves their conversion into modern enterprises and the formation of large enterprise groups that will be able to compete against large foreign multinationals. These groups face important challenges in overcoming the present problem of their SOEs and in sustaining the efficiency and flexibility that will be needed to compete successfully in international markets.

The Vietnam Construction and Import-Export Joint Stock Corporation (VINACONEX) is a state-owned enterprise. Since the Corporation was established, VINACONEX has followed a diversification strategy on production and business aspects, gained many proud achievements as well as being highly appreciated by clients, the business community and society. However, lately, in the context of a complicated and unexpected ever-changing macroeconomic climate characterized by greatly increasing inflation at levels not experienced for many years, signs of emerging deflation, a tight monetary policy, a tight real estate policy, and the Government's cutting of public investment, etc., enterprises in the construction sector in general, and VINACONEX in

<sup>&</sup>lt;sup>1</sup> Hanoi School of Business, Vietnam National University, Vietnam

particular, have coped with a great many difficulties. This study will investigate the problems and issues related to the restructuring of VINACONEX.

#### 2. Analyzing Framework

Organizational restructuring involves major changes in the organizational structure for enhancing the 'efficiency and effectiveness' of firms (Bowman & Singh, 1993). It involves reorientation of business units to rearrange resources within a firm for better performance. According to Gibbs (1993), there are three types of corporate restructuring. These include: (i) financial restructuring including recapitalizations and changes in capital structure; (ii) portfolio restructuring involving refocusing on core business, resulting in change in the diversity of business in the corporate portfolio; and (iii) operational restructuring, including reorganization and changes in business-level strategies (Gibbs , 1993).

Corporate restructuring is intended to either react to crisis or to be part of the company's pre-emptive plan for their survival in the industry. The restructuring process is a lengthy and a painstaking one. It presents many challenging tasks and requires analysis of social benefits and costs. The most difficult task is to persuade those who are most affected to understand the desirability of the reform efforts (Soon, 2004). In the meantime, strategic evaluation of re-engineering, restructuring, and downsizing policies is perceived as the influential management paradigm. With this, companies are able to fully leverage on their core competences in creating superior competitiveness (Tony, 1997).

Miller and Friesen (1984) suggested that environment shift, technology changes, organizational growth, and leadership changes are the reasons that lead to restructuring (Miller & Friesen, 1984)]. Massimo and Delmastro (2002) deemed that the adaptation of advanced manufacturing technology and new human resource management practices favors organizational change (Colombo & Delmastro, 2002), King, Covin and Heeley (2000) suggested that environmental dynamism impacts the strategies chosen by firms and moderates the relationships between the organizational structure, organizational strategies, and firm performance (King, Covin, & Hegarty, 2003). Moers (2000) suggested that restructuring is also associated with strong market competition (Moers, 2010). Jensen (1986) believed that the restructuring could be described as returning a free cash flow to owners (Jensen, 1986). The work of Harrison et al. (1991) suggested that a significant amount of restructuring is associated with high levels of diversification strategies (Harrison, Hitt, Hoskisson, & Ireland, 1991), while the study of Hoskisson and Turk (1990) concluded that restructuring is primarily directed at overcoming control problems that are associated with diversification and that result in poor performance (Hoskisson & Turk, 1990). It is partially explained by free cash flow, because free cash flow is a function of investment opportunity, operating cash flow, diversification, financial leverage, and corporate governance. Hill and Snell (1988) found that ownership concentration was associated with lower levels of diversification in research and development intensive firms (Hill & Snell, 1988). Thus ownership diffusion is positively related to diversification. Based on this literature, we proposed an analyzing framework indicating the relationship between the dependent variable (corporate restructuring) and independent variables as presented in figure 1.

# 3. Methodology

#### 3.1 Sample Determination

Slovin's formula was used to define the sample size for the survey in this study:

$$n=N/(1+N*e^2)$$
 (1)

Where n: sample size

N: Population size is the total number of staff members of VINACONEX.

e: Probability of error committed due to the use of the sample instead of the total population. The error level in the sample survey was chosen to be at 5 percent.

At the time of the survey, VINACONEX had 34,201employees. Thus, the minimum sample size to conduct the investigations would be:

$$n=N/(1+N*e^2)=34,201/(1+34201*0.05^2)=395$$
 (2)

#### 3.2 Research Design and Data Collection

To collect data for this study, a questionnaire was developed in both English and Vietnamese as the instrument. The questionnaire was developed based on the analyzing framework (Figure 1). It consists of 30 statements related to competition, finance, corporate governance, new business strategies, human resource management, conflict, ownership, leadership, technology development, and the company's development, in order to gain

in-depth knowledge on all the issues. A typical five-level Likert item (Agreement scale from 1=strongly disagree to 5=strongly agree) was used for this study (see Appendix).

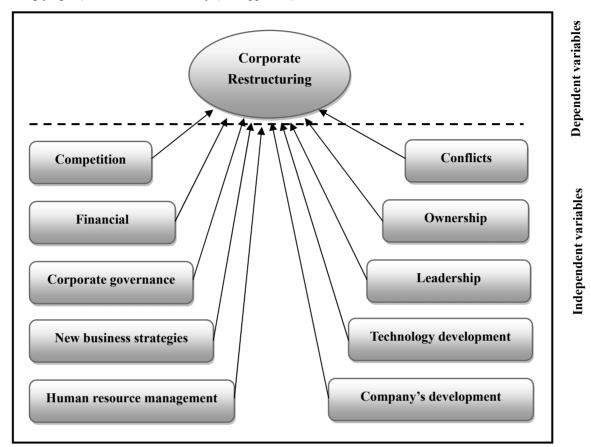


Figure 1. An analyzing framework

Table 1. Respondent demographics about the study sample

Demographic information	Number of respondents	Percentage
Gender		
Male	363	91.20
Female	35	8.80
Job positions		
Senior executives	111	27.89
Managing directors	128	32.16
Officers	159	39.95
Educational levels		
College graduate	8	2.01
University graduate	313	78.64
Postgraduate	77	19.35
Work experience		
Less than 5 years	15	3.77
5-10	32	8.04
10-15	207	52.01
15 years and more	144	36.18

The data collection process took place from May to June, 2013 through mixed-mode surveys. On one hand, we conducted face-to-face interviews at four training courses for VINACONEX's middle managers. On the other hand, questionnaires were handed to the respondents at VINACONEX by these middle managers. At the end, we collected 398 questionnaires with full information.

#### 4. Results and Discussion

Table 1 indicates that the majority of respondents are males (91.2 percent) and only 8.8 percent are females (35/398 persons). The sample was suitable having the characteristics of the construction sector where the majority of employees in the industry are males. Table 1 also shows that most of the respondents were university graduated employees and have had more than five-year's working experience.

Regarding job position, results in Table 1 indicate that 27.89 percent are senior executives (General Director, Deputy General Directors, Directors, Deputy Directors, Chief of Trade Union, etc.), 32.16 percent are managing directors (including directors of human resources, finance, departments, divisions, etc.) and 39.95 percent are officers (such as leaders of construction teams, accountants, department officers, etc.). This shows that most of the respondents are relevant to the restructuring process of the enterprise and nearly 60 percent of them are executives, directors or managers at various levels. It can be said that through these samples, the survey results are appropriate to the reality and will reflect reliably the research theme.

#### 4.1 Findings

The content relating to the restructuring process in VINACONEX is categorized into 10 major issues including competition, developmental strategies, finance, corporate governance, human resource management, leadership, ownership, conflicts, technology development, and company development. Key survey results are shown below.

Table 2. Reasons for corporate restructuring

The reasons for state-owned construction companies in Vietnam to implement restructuring			Frequency  The level of agreement i increasing						
	1	2	3	4	5				
Restructuring comes from the pressures and requirements of the Group/Parent Company/State Capital management Company/Industry/Government	7	142	213	20	16				
Restructuring results from the urgent needs of the company to help it overcome recession, or avoid bankruptcy	3	4	29	67	295				
Restructuring has arisen from the company itself with the objective of self-renewal suitable with its strategy and the needs of the business development-identifying that restructuring is an indispensable phase in the development process of the company	62	163	96	34	43				

Table 3. The respondents on competition

	Frequency							
Competition		level easing	of a	greem	ent is			
	1	2	3	4	5			
Restructuring helps company compete more effectively	1	73	264	40	20			
Restructuring helps companies focus their resources on their competitive products and the market	1	2	18	96	281			
Restructuring helps companies focus on improving the quality of customer services, and enhancing the company' image and trademark	62	245	43	35	13			

The survey results in table 2 show that the majority of respondents (362/398 respondents, accounting for approximately 90.1 percent) agreed and strongly agreed with the reason that the restructuring resulted from the urgent needs of the company and were aimed at helping it to overcome recession, or avoid bankruptcy. The intent of the restructuring was to help the company improve competition, effectiveness and efficiency.

Regarding competition, table 3 indicates that the majority of respondents (375/398 respondents, accounting for approximately 94.22 percent) agreed that the restructuring helped company focus their resources on their competitive products in the market. On the contrary, most of the opinions (over 77 percent) disagreed that the restructuring helped company focus on improving the quality of customer services, and enhancing the images and trademark of the company. Thus, the company needed to allocate capital and other resources more adequately and efficiently, concentrated on core business areas related to the construction industry.

Table 4. The respondents on strategy

	Frequency					
Strategy		The level increasing		of agreement is		
	1	2	3	4	5	
In the context of Vietnam, construction companies should focus on their core business areas related to the construction industry	9	25	49	172	143	
Having a clear strategy is a prerequisite to conduct restructuring. Otherwise, a hasty restructuring could result in decline, crisis, or even lead to bankruptcy.	0	23	232	103	40	
Construction companies in Vietnam should expand their business in developing markets where infrastructure and construction is still underdeveloped	162	76	112	35	13	

Table 5. The respondents on conflict

Conflict		Frequency The level of agreement is increasing						
	1	2	3	4	5			
Restructuring causes dissent amongst workers as well as trade unions	9	82	260	34	15			
In restructuring it is essential to dismantle and replace the old structure with a new one, so that there is a sharp contrast between the old and the new in terms of conditions and benefits	6	36	71	135	152			
Restructuring will require companies to put off staff which will mean they will also face fierce resistance from a number of their own managers and employees	6	26	152	183	32			

Table 6. The respondents on ownership

		Frequency						
Ownership		The level of agreemen increasing						
	1	2	3	4	5			
The profound understanding and compatibility of the business operation fields of the VINACONEX, who owned the main shares of the VINACONEX , will substantially affect the success or failure the VINACONEX	6	34	43	75	240			
Enhancing the role of independent directors in the Board of Management shall help keep the restructuring on the right track and improve the risk management of the VINACONEX	20	182	101	70	25			
Contributions of state shareholders in companies are not realistic, and are poorly effective for the business operations of the VINACONEX that have controlling shares owned by the State (> 51 percent)	1	11	87	149	150			

Among four strategy-related issues, it is obvious that 315 respondents agreed that in the context of Vietnam, the construction companies should focus on their core business areas related to the construction industry (table 4). In

addition, many respondents (143 respondents) noted that having a clear strategy was a prerequisite to conduct restructuring; otherwise, a hasty restructuring could result in decline, crisis, or even lead to bankruptcy. 238 respondents disagreed with expanding the business in developing markets where infrastructure and construction is still underdeveloped.

The respondents on conflict in Table 5 show that the highest concern of many people is that in restructuring it is essential to dismantle the old structure and replace it with a new one, so that there is a sharp contrast between the old and the new in terms of conditions and benefits. Any company when implementing restructuring always copes with this matter. Moreover, the restructuring will require the companies to put off staff. This means that they will also face fierce resistance from a number of their own managers and employees. This is an issue that captured much attention and has the agreement of many respondents.

Regarding ownership, Table 6 shows that most of the respondents (nearly 80 percent) agreed and strongly agreed with the first statement saying: "the profound understanding and compatibility of the business operation fields of those companies, who own the shares of the company, will substantially affect the success or failure of the company". In addition, 299 respondents agreed that the contributions of state shareholders in companies are not realistic, and are poorly effective for the business operations of the companies that have controlling shares owned by the State (> 51 percent).

Table 7. The respondents on leadership

Leadership		Frequency The level of agreement is increasing						
	1	2	3	4	5			
Restructuring must begin with the awareness of the leaders of the VINACONEX	14	89	78	166	51			
The Board of Management members, who directly manage the business operations, will play the decisive role in the success or failure of the restructuring process in particular and the development of the VINACONEX in general	2	10	123	220	43			
The qualification, knowledge and the profession of board members in the operation fields of the VINACONEX will greatly impact on the success of the restructuring	1	4	33	121	237			

Table 8. The respondents on employment

			Frequency						
Employment		The level of agreement is increasing							
	1	2	3	4	5				
Restructuring means the downsizing of staff of the VINACONEX	8	15	61	165	149				
Restructuring is an opportunity to appropriately adjust key positions in the VINACONEX and it is the right time to attract high quality human resources from the outside of the VINACONEX	14	17	106	221	40				
Restructuring help the VINACONEX to recognize the important role of human resources strategy as well as its implementation	31	67	228	55	17				

Leaders play an important and direct role in the success or failure of the corporate restructuring process. In table 7, there are 358/398 respondents (nearly 90 percent) confirming that the qualifications, knowledge and the profession of Board of Management members in the operation fields of the VINACONEX will greatly impact the success of the restructuring. This is consistent with the results in the first statement in the table 7. It means that the restructuring should start from the awareness of the leaders. In addition, most of the respondents were in favor of the opinion that BOM's members, who directly manage the business operations, should play the

decisive role in the success or failure of the restructuring process in particular and the development of the VINACONEX in general.

Employment is a sensitive issue during the restructuring process. Table 8 shows that most of the respondents (nearly 79 percent) agreed that restructuring means the downsizing of the staff of the Companies. 261 respondents stated that restructuring is an opportunity to appropriately adjust key positions in the companies, and it is the right time to attract high quality human resources from outside the VINACONEX. In addition, some respondents agreed that the restructuring helps the VINACONEX to recognize the important role of human resources strategy as well as its implementation.

Table 9 shows that technological innovation is the only one of the 10 issues in the questionnaires that contains 3 statements which are highly agreed to by respondents. Of these three, the statement "Technological innovation should be carried out continuously. It should not wait until restructuring to carry out the technological innovation" was agreed to the most with 84 percent of respondents agreeing (of these respondents over 54 percent strongly agreed and nearly 30 percent agreed). Only 5 respondents (equivalent to 1.26 percent) disagreed with this statement. Thus, technological innovation is the leading issue in the restructuring of VINACONEX.

Table 9. The respondents on technological innovation

			Frequency							
Technological Innovation		leve easing		agreem	ent is					
	1	2	3	4	5					
One of the leading issues in the restructuring is technological innovation		44	63	110	178					
Restructuring relating to technology should be defined as: "technological innovation should be carried out before the current technology is outdated"		67	155	36	124					
Technological innovation should be carried out continuously. Implementation of technological innovation should not wait until restructuring.	0	5	59	114	220					

Regarding the corporate governance issue, table 10 shows that most respondents (approximately 85 percent) agreed that restructuring relating to corporate governance was to comprehensively reform the management approach and methods in the VINACONEX rather than to establish and build uniform regulations and procedures for meeting the strategy of the VINACONEX in accordance with the implementing of the roadmap of the restructuring.

Table 10. The respondents on corporate governance

	Frequency						
Corporate Governance		The level of agreeme increasing					
	1	2	3	4	5		
Restructuring relating to corporate governance is to comprehensively reform the management approach and methods in the VINACONEX	0	8	53	142	195		
Establishing and building uniform regulations and procedures is necessary to meet the strategy of the VINACONEX in accordance with the implementing of the roadmap of the restructuring	38	161	61	93	45		
Mergers and acquisitions should occur more frequently	14	67	215	87	15		

Table 11 indicates that most respondents were concerned about the policies of the state on capital preservation requirements for selling shares or conducting mergers, which were creating obstacles for the restructuring process. For the same reason, they agreed with the opinion that there should be a specific policy regarding "capital preservation requirements" for selling projects/shares of state owned enterprises/companies with the controlling shares owned by the State. Additionally, about 40 percent of the respondents wished the state to have a flexible policy on the purchase and sale of debts in order to help VINACONEX to accelerate the restructuring

process. Only a few respondents agreed with the opinion that the merger, acquisition or sale of its affiliates/subsidiaries is actually to help improve the financial condition of the VINACONEX.

Table 11. The respondents on finance

	Free	quenc	y			
rinance		The level of agreement increasing				
	1	2	3	4	5	
The merger, acquisition or sale of its affiliates/subsidiaries is actually to help improve the financial condition of the companies	31	96	225	29	17	
There should be a specific policy regarding "capital preservation requirements" for selling projects/shares of state owned enterprises/companies with controlling shares owned by the State	2	11	42	140	203	
Inconsistent policies of the state on capital preservation requirements for selling shares or conducting merger are creating obstacles for the restructuring process	2	7	43	81	265	

#### 4.2 Implications

The findings of the study may provide the company with the following practical implications, which may also be useful for many other Vietnamese construction companies in restructuring.

First, VINACONEX needs to develop a new corporate strategy after corporate restructuring in order to implement an ambitious and long-term view about company development. The success and development of the company are primarily based on the strategic vision and mission. In order to implement the strategic plan, the company needs to inform everyone in the VINACONEX of the new plan so people can understand they company's tasks and their tasks in helping the VINACONEX (to?) reach the objectives. In addition, VINACONEX needs to create, maintain and develop channels of communication between the VINACONEX, the unit members and the shareholders.

Second, the focus should be on two main areas of business-the construction and real estate business-because it is in these two areas that VINACONEX has a highly competitive advantage. More specifically, VINACONEX needs: (i) to withdraw from the business sector that is dominated by companies operating commercial bank and financial services-sectors in which VINACONEX has a low comparative advantage. (ii) to continue to search and implement real estate projects and infrastructure development of large-scale, highly profitable businesses and ensure the long-term stable development of these member companies in VINACONEX, and to enhance the credibility and trademarks of member companies.

Third, the VINACONEX needs to provide training programs for both staff and managers. As mentioned above in the method chapter, some staff and managers in the VINACONEX do not understand some concepts relating to management and corporate restructuring. In addition, after restructuring, the VINACONEX's environment will change and become more dynamic and competitive. The mismatched business and management practices of the company and business partners would at the least mean they were ineffective and inefficient. Therefore, the knowledge of management and business has become more crucial for the company's long-term success.

Fourth, the VINACONEX needs to improve firm performance through technology development and innovation because technological innovation is one of the important issues that often go together with the restructuring process. In addition, the company needs also pay more attention to competition through technology instead of through the unskilled labor force.

Finally, the VINACONEX needs to build standards and conditions for each key position, such as members of the Management Board, Supervisory Board, Board of Directors, Chief Financial Officer, and Board of Directors of VINACONEX. These are criteria for review work efficiency of these key positions. In addition, the company needs to assign responsibilities and encourage coordination between the Board of Directors and the Supervisory Board in all activities of the company after restructuring.

#### 4.3 Limitations and Recommendations for Future Research

Although our study provides interesting insights about the problems and issues related to the restructuring of VINACONEX, some important limitations of this study should be emphasized.

First, corporate restructuring has recently faced widespread criticism due to its low-turnaround success rate in Vietnam. Our analysis extends beyond this discussion by investigating the problems and issues at a specific company. Based on theoretical findings, we develop an analyzing framework for this study. However, the scope of this research is limited to specific research aspects and some variables may be missing. Future research may contribute more variables to build up a better conceptual framework for such a broad investigation.

Second, the application of the findings of this study may have its limitations because the study has investigated problems and issues related to the restructuring of a specific company. Future research should further explore to what extent a broader survey research approach, with larger sample size, may overcome the shortcomings of this study.

*Third*, this study focuses on a corporation in the construction sector in Vietnam. There is some question as to how well these results generalize to State-owned enterprises in other sectors. Future research needs to conduct more study on corporate restructuring State-owned enterprises in different sectors in order to provide a more detailed picture about restructuring in Vietnam.

*Finally*, this study analyzes the problems and issues in corporate restructuring in a specific state-owned enterprise. In this study, we use a typical five-level Likert scale to measure problems and issues. Future research should use other restructuring measures in order to shed new light on the determinants of corporate restructuring of State-owned enterprises in Vietnam.

#### 5. Conclusion

Based on the combination of scientific reasoning, the results of research and from practical problems arising in the development process of VINACONEX, the author has compiled the following suggestions:

First, VINACONEX needs to focus on two major business areas to achieve its vision, which is to become the leading company in the area of development, investment and management of Construction and Real Estate.

Second, the implementation of corporate restructuring in accordance with the actual conditions of SOEs and the construction market situation in Vietnam is now an essential requirement and is the effective way in business. Third, VINACONEX needs to develop an effective management mode that is transparent to avoid risks better. The implementation of the restructuring initiative will help VINACONEX's future development.

Fourth, VINACONEX needs to develop strategies for long-term financial management to ensure the sustainable development of the corporation. The company needs a clear organizational structure, focusing on the areas of core business strategy, leveraging the development of key sectors of the Corporation.

Finally, VINACONEX needs to manage and better exercise control by increasing accountability for the operation of member companies. In addition, there needs to be greater transparency in corporate governance to help investors better understands the activities of VINACONEX.

# Author

Nguyen Ngoc Thang is currently Vice Dean and a lecturer in Human Resource Management and Change Management at Hanoi School of Business, Vietnam National University, Hanoi. He holds a MBA from Southern California University, USA and a PhD in Applied Economic Sciences from the Faculty of Economics and Business Administration, Ghent University, Belgium. He has published several articles on training and development, human resource management and firm performance in Vietnam.

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#### Appendix A

#### **Ouestionnaire**

In order to implement the research "Problems and issues in corporate restructuring in State-Owned construction sector in Vietnam: the case of VINACONEX", we would like to ask you to fill in this questionnaire. Your opinions will substantially contribute to the outcome of this research topic. We look forward to receive your support as well as your thoughtful answers in this questionnaire. The information collected in this questionnaire is used for the purpose of the research only.

A. Personal Information				
1. What is your gender:		Male		Female
2. Which company are you working for, a	and wh	at is your current	positi	on in your company?
Company:				
Department:		. Position:		
3. Education level				
☐ College ☐ University Graduation	□ Po	st Graduate and a	above	
4. How long have you been working for V	VINAC	CONEX?		

B. Problems and Issued Relating to Restructuring of State Owned Construction Enterprises

□Under 5 years □5-10 years □10-15 years □ Above 15 years

Table A1. Pleased circle/tick your selected point which you consider the most appropriate level for respective questions. The points, which represent the increasing level of agreement, are ranging from 1 (strongly disagree) to 5 (strongly agreed)

No.	Contents				The level agreement increasing			
1	The reasons for state-owned construction companies in Vietnam to implement the restructurings							
1.1	Restructuring comes from the pressures and requirements of the Group/Parent Company/State Capital management Company/Industry/Government	1	2	3	4	5		
1.2	Restructuring results from the urgent needs of the company to help it overcome recession, or avoid bankruptcy	1	2	3	4	5		
1.3	Restructuring has arisen from the company itself with the objective of self-renewal suitable with its strategy and the needs of the business development-identifying that restructuring is an indispensable phase in the development process of the company	1	2	3	4	5		
2	Competition							
2.1	Restructuring helps company compete more effectively	1	2	3	4	5		
2.2	Restructuring helps companies focus their resources on their competitive products and the market	1	2	3	4	5		
2.3	Restructuring helps companies focus on improving the quality of customer services, and enhancing the company' image and trademark	1	2	3	4	5		
3	Strategy							
3.1	In the context of Vietnam, construction companies should focus on their core business areas related to the construction industry	1	2	3	4	5		
3.2	Having a clear strategy is a prerequisite to conduct restructuring. Otherwise, a hasty restructuring could result in decline, crisis, or even lead to bankruptcy.		2	3	4	5		
3.3	Construction companies in Vietnam should expand their business in developing markets where infrastructure and construction is still underdeveloped		2	3	4	5		
4	Conflict							
4.1	Restructuring causes dissent amongst workers as well as trade unions		2	3	4	5		
4.2	In restructuring it is essential to dismantle and replace the old structure with a new one, so that there is a sharp contrast between the old and the new in terms of conditions and benefits		2	3	4	5		
4.3	Restructuring will require companies to put off staff which will mean they will also face fierce resistance from a number of their own managers and employees	1	2	3	4	5		
5	Ownerships							
5.1	The profound understanding and compatibility of the business operation fields of the VINACONEX, who owned the main shares of the VINACONEX, will substantially affect the success or failure the VINACONEX	1	2	3	4	5		
5.2	Enhancing the role of independent directors in the Board of Management shall help keep the restructuring on the right track and improve the risk management of the VINACONEX	1	2	3	4	5		
5.3	Contributions of state shareholders in companies are not realistic, and are poorly effective for the business operations of the VINACONEX that have controlling shares owned by the State (> 51 percent)	1	2	3	4	5		
6	Leadership							
6.1	Restructuring must begin with the awareness of the leaders of the VINACONEX		2	3	4	5		
6.2	The Board of Management members, who directly manage the business operations, will play the decisive role in the success or failure of the restructuring process in particular and the development of the VINACONEX in general	1	2	3	4	5		
6.3	The qualification, knowledge and the profession of board members in the operation fields of the VINACONEX will greatly impact on the success of the restructuring	1	2	3	4	5		

No.	Contents		The level agreement increasing			of is
7	Employment					
7.1	Restructuring means the downsizing of staff of the VINACONEX	1	2	3	4	5
7.2	Restructuring is an opportunity to appropriately adjust key positions in the VINACONEX and it is the right time to attract high quality human resources from the outside of the VINACONEX	1	2	3	4	5
7.3	Restructuring help the VINACONEX to recognize the important role of human resources strategy as well as its implementation 1 2 3		3	4	5	
8	Technological Innovation					
8.1	One of the leading issues in the restructuring is technological innovation	1	2	3	4	5
8.2	Restructuring relating to technology should be defined as: "technological innovation should be carried out before the current technology is outdated"	1	2	3	4	5
8.3	Technological innovation should be carried out continuously. Implementation of technological innovation should not wait until restructuring.	1	2	3	4	5
9	Corporate Governance					
9.1	Restructuring relating to corporate governance is to comprehensively reform the management approach and methods in the VINACONEX	1	2	3	4	5
9.2	Establishing and building uniform regulations and procedures is necessary to meet the strategy of the VINACONEX in accordance with the implementing of the roadmap of the restructuring	1	2	3	4	5
9.3	Mergers and acquisitions should occur more frequently	1	2	3	4	5
10	Finance					
10.1	The merger, acquisition or sale of its affiliates/subsidiaries is actually to help improve the financial condition of the companies	1	2	3	4	5
10.2	There should be a specific policy regarding "capital preservation requirements" for selling projects/shares of state owned enterprises/companies with controlling shares owned by the State	1	2	3	4	5
10.3	Inconsistent policies of the state on capital preservation requirements for selling shares or conducting merger are creating obstacles for the restructuring process	1	2	3	4	5

Thank you very much for your time to complete this Questionnaire!

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# An Assessment of Entrepreneurship Programme towards Modern Agri-Technology Usage in Serdang, Selangor, Malaysia

Muhammad Hafidz Abdul Raman<sup>1</sup>, Azizan Asmuni<sup>3</sup>, Khairuddin Idris<sup>3</sup>, Salmizi Saad<sup>2</sup> & Vikrul Adzim Azmin<sup>1</sup>

Correspondence: Muhammad Hafidz Abdul Raman, Department of Agriculture Technology, Faculty of Agriculture, 43300 UPM Serdang, Universiti Putra Malaysia, Malaysia. Tel: 60-3-8947-4961; 60-12-270-4429. E-mail: muhdhafidz@upm.edu.my; apisraman@gmail.com

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#### Abstract

**Problem Statement:** Malaysia is generally driven by a service oriented industry whereby agriculture was placed at the third ranks of government economic priority. In the agriculture sector, the human capital empowerment has contributed towards agriculture productivity and production success which relates to those people involve in farming as farmers. Recent insight reviled that farmers with quality of an entrepreneur will largely to succeed in agriculture based business. Hence, a lot of agriculture based business depends on agriculture entrepreneur in Malaysia. Thus, an assessment study was done for one of entrepreneurship programme held in Serdang and its relation to entrepreneurship development in Malaysia.

**Methodology:** The research design of this study employs qualitative research method. Data were gathered using social inquiry and in-depth interview techniques. It was used to develop a better understanding of the programme particularly in aspects of course content, their individual perception, and personal experience towards the programme. Sampling method was done via a purposive sampling. Five respondents were chosen and interviewed.

Findings and discussions: The interviews of respondents indicated most of farmers or agri-entrepreneur was male, ranging age from 20 to 50 years old and majority mean of agriculture field experience is three years. They became an entrepreneur by inner intuition, learn farming from their parents, and one of them had influenced by his surrounding environments. They were highly specialized in their field, business minded, and very committed to their business venture. All respondents know how to use the technological application of fertigation planting system in growing crops. Finding also shows early acceptance of mediated change to entrepreneurs whereby improving their knowledge, attitude and skill. Thus, entrepreneurship values showed in them are; 1) must have planning and aim, 2) past farming experience, 3) believed in their self, and 4) continue and eager to improve the farming business. This study shows one can succeed in doing business venture through the will power, able to control focus on aims and later will generate profit thereafter. As to succeed in life, they only have to continue pushing the limits and sustainability of their business.

Conclusions: The entire respondent shows improvement after the incubation programme and after finish the programme they become a successful entrepreneur where the evidence by their actions for at past, present experience, and in their future aims. This programme is a good programme meant to be as intermediary programme where improving the life of farmers and nurtured them becoming an experience agri-technology entrepreneur.

Keywords: extension education, entrepreneurship development, agriculture technology, technology usage

#### 1. Introduction

Malaysia is generally driven by a service oriented industry whereby agriculture was placed at third ranks of government economic priority (Malaysian Statistics, 2010). Today, farmers are facing with an ever-expanding knowledge base of agriculture production and technological advancement. Thus, this develops serious arguments

<sup>&</sup>lt;sup>1</sup> Department of Agriculture Technology, Faculty of Agriculture, Universiti Putra Malaysia, UPM Serdang, Selangor, Malaysia

<sup>&</sup>lt;sup>2</sup> Malaysian Agriculture Research and Development Institute, Serdang, Selangor, Malaysia

<sup>&</sup>lt;sup>3</sup> Faculty of Educational Studies, Universiti Putra Malaysia, UPM Serdang, Selangor, Malaysia

to strengthen farmers at the first place as well as develop extension educators towards developing human capital for the country. The entrepreneurship segment has led an important role in shaping our agriculture sector productivity, the GDP contribution, foreign exchange, and human capital development since 1957 Independence Day (MOA, 2010). Recent insight reviled that farmers with quality of an entrepreneur will largely to succeed in agriculture based business. The Productivity Report proves that to increase productivity, the actors who run the systems need to be empowered (MPC, 2013). As in the case of Malaysia, the entrepreneur programme focuses on developing human capital for the agriculture industry. These types of programme always have an incubation period where growth progression of which people adopt technology through effective training and obtain agribusiness knowledge by using hands-on techniques. However, this study attempts to assess the programme in context of extension programme towards participation, reaction of farmers, and the training effectiveness. Agriculture productivity can be increased through an adoption of technology, good agriculture practices, and the farmers' internal strength. Thus, an assessment study was done for one of entrepreneurship programme held in Serdang and its relation to entrepreneurship development in Malaysia.

#### 1.1 Problem Statement

In agriculture industry, a lot of agriculture based business depends on agriculture entrepreneur in Malaysia. Thus, the extension education is very important to stir the direction of agriculture development. There is a great concern for increasing agriculture production to meet the country's supply and demand. Rahim Md. Sail (2008) agreed that the level of technology adoption among farmers is still low especially on modern agriculture practices and it was the main factor contributes to low production of food crops. It is believed that the reduction in the yield gap can be accomplished by uptake of high yielding crop, usage of improved crop planting techniques and farm management. Thus, the key essence for agriculture success is to develop the human capital by focusing on the training programme. Only through an effective training would help the farmers excel and upgrade their skills to become an entrepreneur.

## 1.2 Background of the Study

Agriculture Youth Entrepreneur Incubation Programmme (AYEIP) is a programme aim to provide training and practices intended for youth that interested in agriculture field. This programme was established following the government policies to improve agriculture delivery service system controlled by Department of Agriculture (DOA) and funded under the Nine Malaysian Plan (Government of Malaysia, 2006). The programme outlines provide agriculture coaching and offer a 'hands-on' experience on farming knowledge. The AYEIP programme were located in DOA with two centers in Serdang and later has expanded in Kuala Lipis, Pahang; Titi Gantong, Perak and Center for Training Development and Extension in Besut, Terengganu. The programme target group range from age 18 to 35 years old or an agriculture institute graduates, university graduates, among youth, any general Malaysian citizen, and police retiree or pension army personnel (special requirements needed). The participants have to attend programme in full time basis and must finish eight months incubation at DOA. The entrepreneur who passed stringent training, possessed qualities and the incubation programme will be granted with a space for starting agribusiness at Permanent Food Production Park (PFPP) facility. The programme at PFPP is part of government strategic policy to develop a permanent zone for food productions in a large scale, commercial with high agri-technology practices, to cope with the demand on farm goods and health consciousness of the growing population. The project in Serdang holds a total acreage of 53.5 hectares with only 3.5 hectares is utilized by sharing land between 10 individual agriculture entrepreneurs.

#### 1.3 Research Objectives

The primary objective of this study is to determine the achievement of extension programme by assessing farmer's accomplishment on entrepreneurship development and the usage of technology in their farm at PFPP, Serdang. The specific objectives are as follows:

- 1) To find out participation reasons among farmers in the programme;
- 2) To determine characteristics of entrepreneurship inside respondents;
- 3) To determine entrepreneurship programme strategies and training methods.

#### 2. Literature Review

Most prominent, a young entrepreneur usually non-adequate in experience will seek for advisors or training experts that could give them guidance on technical knowledge about farming practices as to manage their business. In perspective of agriculture sustainability, the industry can only sustain production by ensuring the farmers are replenish, retrain, fully equipped them with new modern agricultural technologies and extension organization supports by providing trainings to them.

# 2.1 Difference of Extension Education, Services and Programmes

Extension education in general is defined as a field of study dealing with informal education directed at the improvement of welfare of rural people. It also describes as a process of dissemination of useful information from research institution to the rural clientele through an extension delivery system for improving economic well-being of target group. According to Boone (1990), extension is human processes where technical information are fused together with one to another, integrated and planned to facilitate rural people achieve their full potentials. Further describe by Jon Chang Hong (1994) said that extension education largely emphasized on human as interface in technology transfer and they adopt new ideas. In reality of an extension system, it is the role of any entrepreneurship institution to facilitate the trainees by giving extension services. The entrepreneurship institution acts as a network bridge between scientists, the extension personnel and farmers or the clientele, where they meet together, changing information about new techniques to the farmers, exchange thoughts on modern farming, and sharing their problem to the scientists (Jitendra, 2007). However, the all of these activities is considered in planning of an extension programme with the purpose of helping entrepreneur to succeed in the programme.

#### 2.2 Difference of Extension Specialist, Extensionist and Extension Worker

These three terms usually describe as important pertaining subject that have distinctive difference between one and another. First, the extension specialist's role is at the top management of institution where policies being drafted through outlining the mission and vision in extension agencies, who usually an qualified academician with specialization in extension education, programme planning, coaching, training of extension personnel, developing new extension methods, and other inter-related extension disciplines. Second, agriculture officer in government extension agencies is known as extensionist or extension educator, who involved in planning, has subordinate staff or extension workers, run implementation of extension programmes, acts as middleman where information were gathered, and distribute it to entrepreneur in training and assisted briefing session. As for the extension worker, they are the front runner level, meet face to face with farmers, and carry out all sorts of job pertaining to farmers satisfactory and their request.

#### 2.3 Agriculture Technology and Adoption through Technology Transfer Approach

Technology is a study mechanical arts and applied sciences involving the development of technical knowledge. Technology is subjective and neutral. It should be perceived as medium for application of new improve method, additional ways of doing things (Jain & Triandis, 1990) and expansion of new ideas that reliable to be use in any conditions (Ahmad, 2007). In addition, Hamilton and Singh (1992) defined technology transfer as the process of movement or transfer of information, technical know-how, and people among technical group functions. For some, technology basically referred to product offering by the technology producers (Khalil & Berman, 1992). In agriculture perspective, farmers who wants to acquire agriculture technology needs to have values such as technology savvy and competent, easy technology acceptance, knowledgeable and ability to maintain the technology after acquiring it (Scott, 1992).

#### 2.4 Entrepreneurial Skills and Development

According to McElwee and Robson (2005), suggested three types of skills that farmers should have in order to succeed in their business such as the entrepreneurial, managerial and technical efficacy of farming skills. Smilor (1997) and Kilby (1971) states that entrepreneurial skills develops from owner's activities, practical know-how for establishing and running a successful business; such as finance, accounting, marketing and production. There also some researchers describe them by values such as innovation, risk-taking, rational way of thinking, reasoning and opportunist (Timmons, 1999; Chen, 1998). However, the most important are the functional skills such as salesmanship and meta-task-level skill and most vital are recognizing hardship commitments that drive them towards success and sustainability of agribusiness (McElwee & Bosworth, 2010).

#### 2.5 Conceptual Framework

Leagans (1961)'s defined extension education as an applied science consisting of contents derived from researches, accumulated field experiences and relevant principles drawn from the behavioral sciences, and combine with useful technology. In this study, the conceptual framework shows hypothetical relationship among variables applied and determines the agri-entrepreneur reaction towards issues related to them, usage of technology in their farm, and effect of training programme to their way of working (Figure 1). Base on review of literature, we have identified some main variables for determine the objective addressed (Appendix B). The dependent variable is agri-entrepreneur or farmers, where peoples who make money by running and administrating agriculture businesses in cost conscious practice and financially risk takers. Meanwhile the

independent variables are extension education absorption on knowledge, attitude, and skills, self-motivation, entrepreneurship values, barriers and challenges to participation, training programme (e.g. courses), technology application (e.g. GAP), personal control, and self-efficacy. For this study, thematic assessments were made on participation, reactions and individual changes (Summers, 1977). However, farm business, the nature of agriculture entrepreneur role, and the foundation behind the role of entrepreneurial were determined by focusing on relevant dimensions that characterized ones as an agriculture entrepreneur.

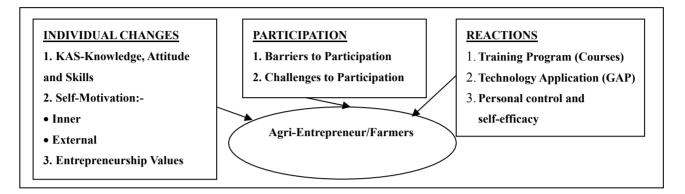


Figure 1. Conceptual framework

#### 3. Methodology

For research purposes, this study is a qualitative research design. It was used to develop a better understanding of AYEIP programme in aspects of programme planning and its implementation from the personal experience of the instructor and the participants of the programme. Sampling was made using a purposive sampling (Patton, 2002). Data were gathered using social inquiry (Byron et al., 1975) and in-depth interview techniques. The reasons are to locate fruitful information in participant of the programme, their planning and learning experiences especially for better understanding of AYEIP programme in aspects of course content and perception of individuals towards the programme. All the potential respondent name and contact number were taken for arranging interview session based on their best suitable time. Sometime, one of them likes to be interviewed in leisure time at a restaurant near the Serdang town area. The respondents were the extension personnel and also four participants. The interview session was held following the respondent time and place as he/she wishes in face-to-face session. The interview session were conducted in Bahasa Malaysia at approximately 30 to 40 minutes. Digital recordings were made and all of them agreed to be recorded. Researcher also has taken some notes during conversation and it was summarized after the interview session. The entire respondent was very helpful and they also give the researcher a tour visit to their farm. After the interview session ends, researcher thanks each of the respondents for participating in this case study. All respondents have given their consent for the use of their information and no real names in the finding were used as to preserve anonymity. The study also used techniques such as prolong engagement, peer debriefing and member connections for ensuring the credibility of the findings.

#### 4. Findings and Discussion

This programme used andragogy approach that support Malcolm S. Knowles (1973) assumptions. AYEIP entrepreneurs are highly interested, have aims, greatly motivated and being carefully selected for the programme. In 2011, AYEIP programme were declined trend of success where only thirty percent still maintain running agribusiness at Serdang PFPP and others leave to run their own farm in their village. Some of non-successor leave the field and jump into job employment. In upcoming years, this programme will not continue to be fund by the government, but the DOA will invite more existing farmers back to their center in Serdang at PFPP. Recent news informed by Faisal, the government willing to continue this programme with renewed system and refreshed strategies to draw braver participant.

From the interview sessions, the informant was reporting about their life story and the researcher records all of the explanation and saying. Thus, the result were simplified and arranged in thematic summary for easy explanation which has been taken from the voice records. The findings from in-depth interviews from four agri-entrepreneur indicated that most of farmers aka agri-entrepreneur were male, ranging age from 20s to 50s years old and majority mean of experience is 3 years in the agriculture field (Appendix A). They became an

entrepreneur by inner intuition and learning from their parents and one of them had influence by his surrounding environments. They were highly specialized in their field, and for some; they are very committed to their business venture. All of them used technological application that is the fertigation techniques in planting crops system.

On in-depth interview findings shows early acceptance of mediated change to entrepreneurs whereby improving knowledge, attitude and skill. Results also in-line with Levine (2005) theory of fundamental of success where they know about their role in the industry, they are cost conscious, keeps updated records, have business development plan, , know how to deliver results, have self-confidence, self-respect, know what they wants and have gained their very own perspective in style of doing agriculture business. However, they are quiet shy on communication with the outsider especially to people which have high educational background. These shows they might needed to further invest on prolonged relationships and network search ability. It is because customer will not come if the seller is not nicer and do not have the power of attraction.

#### 4.1 Reasons for Participating in the Programme

Reasons for their involvement are diverse. According to Ali said that, "I interested in joining this programme because to improve myself and I have to support my parent due to our less income." Moreover for Bakar, he explained, "My parent does not have much income.....we (parents) only do farming in our small land.....the income just enough to support our basic needs monthly......so I did join this programme to make something new for myself....none of my sibling is farmer, all of them (sibling) work either with government and private company.....but for me the likes of being businessman, as well as supports the family and become independent in doing business venture with the help of government....who want to miss that chances."

This proves that no force imposed to become agri-entrepreneur from joining the programme, following the philosophy of participation and self-help. Ali shows an evident of principles of interest and needs. He has personal control and aware of the challenges opposed to them which supports the theory of planned behavior by Icek Ajzen (2002) research that aligned with principle of participation. The outcome from reasons they gave showed by their determination to succeed in agribusiness and increased in income at PFPP, where Ali and Bakar was indeed at average RM10,000 in income per cycle of production and they even want more.

# 4.1.1 Challenges and Barriers of Participation

From the interview of respondent, Ali (not real name) explained, "Many....there are many of participant could not withstand the challenge.....a lot of activities were done in bright sunny day and all the time we do it by our own self...... in fertigation system ...all activities. Maybe for some.....this work is hard for them."

He further added that "Participants withdrawn from the programme....due to reasons such as already have another job, want to do business in the village, health problem of old parents, space are limited at PFPP and only selected participant with good qualities..... so this is the challenge.....maybe they want to see whether who have the ability or not."

Bakar added more explanation, "True, there are many reasons participant give.....I just want to quote.....there are cases here where success farmer that institute believe can ready to move on to real world but after being place to other location or move to do business outside this place.....they eventually not succeed....from their explanation, they said factors such as land, finance or fund, cost of inputs, high infrastructure price, and market price uncertainties of crop they planted.....that is the first basis for establishing agriculture business."

The finding shows that the agriculture business is a high risk venture especially when they used the fertigation technology in farming crops. In Ali and Bakar, they somehow able to manage their idealistic needs, local responsibility and characters with their business culture. The challenges and barriers showed in them are their age, health conditions, body strength, land, finance or fund, cost of inputs, high infrastructure price, and uncertainties of crop prices.

#### 4.1.2 Farmers Motivation

The majority of entrepreneur can be categorized in activity-oriented learners which explain by their action more towards farming activities rather than exploring to other aspects. Similar concept by Raymond (1999), the findings shows they actually learn through motivation that comes from inner intuition.

According to Latif, "I was a troublesome during my younger age.....and I manage to be the best of what I can do right now... I know from my friend about this programme..... I gain interest in this programme....long before them (Ali and Bakar) were in the programme....but at that time I was still working with one of public cooperative company and I as the chief operation officer there. Later, after I have paid all my debts at the banks......I said to

myself that I should give others chances for my position and later I quit my job even thou I have high salary at the time......but I joint this because I changed and I like to do farming."

Latif favor condition where were met and the motivation increases. His conditions are such as environment, incentives motivate learning, internal motivation that more self-directive, learning is most effective when they really want it, and enhanced motivation through instructional materials. He has high spirit and it is believed that the remaining of farmers here in PFPP was the progressive farmers. From all the reasons explained above, the respondents seem to have their own reasons for joining the programme following their individual interest and needs. Moreover, their testament showed by their actions caring during farm tour visit after interview session ends.

#### 4.2 Characteristics of Entrepreneurship inside Respondent

Finding suggested that there are some characteristics values of entrepreneurism inside respondent which could be categorized as; 1) they have planning and aim whether for their current business as usual or for future progress, 2) they have past farming experience where family traits, efficient farming values, and practices are being adopted, 3) believed in their self whether from inner, outer and trained by extension educator, and 4) continue and eager to improve the farming business as addressed in their aspiration towards sustainability of their farming business (Appendix A). This study shows one can succeed in doing business venture through the will power, able to control focus on aims and they will generate profit thereafter. Finding also identified numerous elements of entrepreneurship character among respondents such as goal oriented, and relevance in decision making, have gone through process of change and respected by other entrepreneurs. All these characteristics are the key ingredient for achieving goal in the entrepreneurship programme.

#### 4.3 Strategies and Training Method for Entrepreneurial Development in Serdang

The AYEIP programme development concepts were jointly organized by Selangor State Government, Federal Government, and agriculture entrepreneurs. The State Government helps by giving authorization and gazetted the area as PFPP. The federal government on the other hand helps by sponsoring the development cost on basic infrastructure of PFPP. In contrast, trained agriculture entrepreneur runs their food crops production in the gazette land. Moreover, the programme also addressed several key aspects on Good Agricultural Practices application upon using fertigation technology systems. The main criterions of the agriculture entrepreneur success are they have to equip themselves with priority knowledge and skills.

According to the respondents, they said that the extension personnel always teaching them whenever they do farm visit, sometimes they give facilitation while on the farm. Topics that extension personnel emphasis are on the product early detection or farm traceability systems, record-keeping and internal audit, the planting materials, historical records and site management, substrate and land management, fertilizer solution management, irrigation and fertigation systems, crop protection and integrated pest management application, time schedule and harvesting, post-harvest treatment and handling, analysis of the crop pesticide residual, farm organic waste management, occupational safety and health of workers, environmental issues and laws, record complaints of farm products, and fulfilled legal requirements on standard farming activities (Appendix C).

From the programme perspective, the knowledge-flow is from research findings to extension personnel or mediator as to tackle farmer's problem while doing their farm activities. These could be summarized as in Figure 2. According to respondent interviewed, there were various ways of facilitation and training methods which have been designed to help the agriculture entrepreneur to change. However, they are free to choose whether willing to learn or they simply may not. This study shows the training center use six strategies to persuade, engage and empower them. The six strategies are very much related to learning approach of an individual and self-development within themselves (Figure 3). The extension educator also used reverse psychological practice as well as integrates motivation with religious aphorism which works as motivational control factor for triggering their self-courage. The entrepreneur showed element of fill needed and attached to the place. They often make frequent discussions with the extension educators and from this activity would help them to ease their burden, by social and mental support.

According to Farah, "I learn a lot from this place, the center (DOA) have bring me from nothing to having all of this advanced technology from Holland....they believes in me thus giving me the opportunity to do it as my business venture....without the government intervention in this programme.....all of this may not materialized." Further she added "I gain a new experience for many of them (extension educator), mentoring, supervising and they give me experience for succeed in life. I only have talent, idea and they respect me and provide me with infrastructure."

Farah can be classed into philosophy of social progress where she more prone to spending their time and money at this center (PFPP) because she wants to learn and wanted a better life for herself. She shows character values such as self-realization, self-respect, self-motivated person, and self-determination. Although the respondent often do not know how to acquire what they want or how to make themselves but they have some fortitude to learn what is presented to them (Appendix A). The respondents tend to like the place (PFPP), the programme and willing to attach even after ending the eight months incubation.

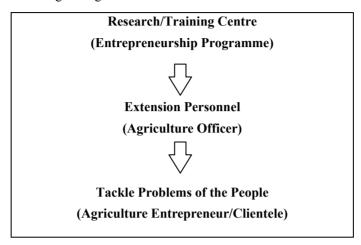


Figure 2. The programme knowledge-flow mechanism

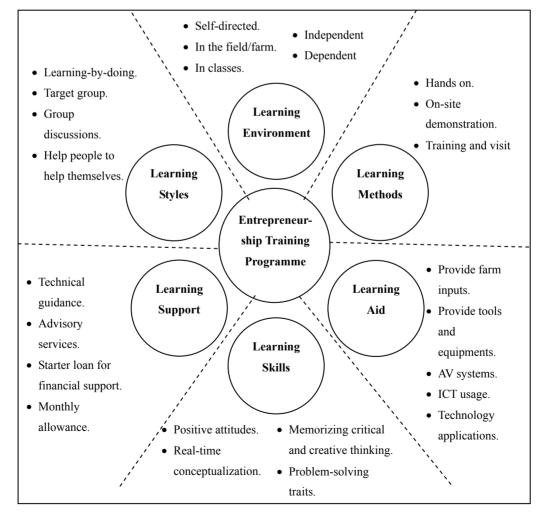


Figure 3. Strategies used in AYEIP programme

#### 4.3.1 Extension Educator Role

Findings were found that entrepreneur obey leaders that teach them. According to Bakar, "I had experience with the superior (Agriculture Officer)....there is a visit by the management from the Ministry..... officer urges us to keep up tidy the farm .....and I give my help to them without question ask ....I do as accordingly."

Furthermore, the most important is the role of extension educator in the institution that in line with philosophy of leadership and local responsibility (Azizan et al., 2011). From interview of extension educator, he perceived his role as personal satisfaction and to fulfill his generous aim to help agri-entrepreneur achieve their goal that bigger than the extension educator personal concern.

The evident shown by Faizal saying, "We as an catalyst to expand farmers potential to maximum.....selected agri-entrepreneur to explore their limit....as we giving our full support and training on what they want to learn and upon asked by the entrepreneur." This explanation showed the extension educator already know their role on what to do and what need to be done which in line with organization goals (Appendix C).

#### 5. Recommendations

Based on the findings, there are some recommendation list out for improvement and action by the people involved in this study. The recommendations are such as follows:

- a. The government should emphasize on sustainability of the programme and stressed more on acceptance of new commercialized technology method rather than traditional method.
- b. The extension educator should be empowered with skills on how to influencing people, negotiation skills and also technical knowledge on how to empower the entrepreneurs in amicable environment.
- c. The training activities based on what they wanted to learn is not valid anymore. The extension personnel must add training of the future in term of what will be, what if, and what ought to be.
- d. The programme content has to be a designed activity with achievable goals. Areas to strengthen are technical skill in farming business, entrepreneurial skills and farm managerial skills. This would help them to survive in competitive agribusiness environment.
- e. Provider of the programme should search new strategies as to draw more new comers. The programme should be open as second-chance educations to person who really interested to be an entrepreneur.

#### 6. Conclusion

In conclusion, the first objective was farmers' reasons for participating the programme shows agri-entrepreneur is aware of their role in the nation development and agriculture industry which can be seen by their live experience and agribusiness development progress. For the second objectives was determine the characteristics of entrepreneurship inside respondent were based on interest and needs. The entire respondent shows improvement after the incubation programme. Moreover they become a successful entrepreneur which evidence by their actions for at past, present and future aim. The entrepreneur characteristics assessment must be considered before selecting the best practitioner of modern agriculture entrepreneur. In addition, the last objective was determined about programme strategies and training methods that relate to their knowledge, attitude, skills, and aspirations have successfully addressed. This shows that the programme should be prolonged and funded back by the government. Finally, this programme was a good programme meant to be as intermediary programme where improving the life of farmers and nurtured them becoming an experience agri-technology entrepreneur.

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# Appendix A

Table A1. List of respondent's interview in categories

Categories	Respondent 1 (Ali)*	Respondent 2 (Bakar)*	Respondent 3 (Farah)*	Respondent 4 (Latif)*
1) Gender, Marital Status, Age, and Highest Education?	Married Men Age 20s SPM	Married Men, two kids Age 30s SPM	Married Woman with kids Age 40s, SPM	Married Men, five kids Age 50s Advance Diploma
2) When you finish the 8 month incubation course? Years of experience in agribusiness?	8 month incubation ended on Oct 2007, now 3 years agri-experience	8 month incubation ended on Oct 2007, now 3 years agri-experience	8 month incubation ended on Oct 2007, now >3 years agri-experience	(instant/selected 20 year entrepreneur) 3 years agri-experience
3) Do you own a company?	Own company	Own company & supply input (pt)	Own company with joint share	Own company & multiple business
4) Interest and support?	Love to do farming	Interested & family very supportive	No option & full strength at will	No option & full strength at will
5) Recent courses taken?	EM, Compost Course, & Bokashi	EM, Compost Course, & Bokashi	Intensive training using Holland technology system	N/A-On farm work experience
6) Starting point after incubation and incentive given?	6 month preparation	6 month preparation	Willing to get expert help from Holland, starts exactly after incubation.	6 month preparation
7) Planting preparation?	2 unit x 30 x 90m (<3tan).	2 unit x 30 x 90 m (>3tan).	4 unit x 30 x 90m (>7tan).	2 unit x 30 x 90 ft (>3tan).
8) Technological	Shelter & Polybags	Shelter & Auto pot	Shelter & Holland	Shelter & Polybags

Categories	Respondent 1 (Ali)*	Respondent 2 (Bakar)*	Respondent 3 (Farah)*	Respondent 4 (Latif)*
application in farm	fertigation system, GAP, & IPM	fertigation system, GAP, & IPM	fertigation system & sensor tech, GAP, & IPM	fertigation system, GAP, & IPM
9) Farming background and family history?	Parent farmer, Help in palm oil farm, banana, & paddy	Parent farmers, Manage family's palm oil farm & planted lemon grass	Parent farmer, help in family small agribusiness	Live in village, businessman & previously has lots of business failure
10) Values that moves you further?	Agriculture is ordinary, no specialty, & strive to success	Agriculture is full of challenges from social, physical & rolling capital.	Must do good to crop, discipline, planned aim & challenge yourself.	God given, strength to move further, politic & already secure market
11) Current farmer's income per cycle?	Avg RM10,000 (Avg 4 cycle)	RM11 ,000 (Avg 4 cycle)	>RM30,000 (Avg 4 cycle)	At par RM15 ,000 (Avg 4 cycle)
12) Farmer's income aim?	Aim income: RM3,000/month	Aim income: RM3,000/month	Aim income: RM6,000/month	Aim income: Add RM3,000/month
13) Farming details and types crop planted?	Self-running, planted tomato cherry & rock melon etc.	Self-running, planted cucumber, tomato & rock melon etc.	2 worker, planted tomato & rock melon etc.	Able to employ 3 worker, planted chilli etc.
14) What's your future planning for your farming business?	Future Aim: Market, testing GAP, & cost reduction	Future Aim: Modified planting medium & increase function of fertigation sys.	Future Aim: Trial using new tech & Sustainability & increase efficiency	Future Aim: Modified planting medium, cheaper source.
15) Do you think the programme is effective? (Is the programme effective and benefit you)	Yes, the hands-on and real life experience.	Yes, I learn to use new farming method and gain better income.	Able to open farm, use the knowledge learn in the programme, and generate more income.	Able to apply fertigation knowledge, & able to produce in small space with higher production.
16) What do you expect from the programme	To improve income and help parents	To upscale livelihood and be a successful entrepreneur	To generate better income	To use the technology to modernize farming & to succeed in farming business

<sup>\*</sup>All the names are pseudonym

# Appendix B

Base on review of literature, we have identified some main of variables to determine the objective addressed such as below.

Table B1. The independent variables

No.	Independent Variables	Explanations
1	Extension education (KAS)	Extension education is an education and it is bringing a desirable change in behavior (knowledge, skills and attitudes) of rural people to improve their social, economic and psychological status (Chauhan, 2007)
2	Entrepreneur-ship Values	Entrepreneurship values assessed are their ability to accomplish something from an addressed theme includes planning and aim, farming experience, self-actualization, and eagerness to improve the farming business
3	Self-Motivation	Success is the indicator for assessing people and in motivation aspect. The phrases "success is more predictably motivating than is failure" was a key aspect in entrepreneurial development which means that success is the indicator for assessing people and in motivation aspect, the success is a dream that can and must be achieved.

No.	Independent Variables	Explanations
4	Technology Application	Technology is increasingly becoming a veritable instrument for transforming agriculture (Khalil & Berman, 1992). Therefore, transfer of technology is a process essential for the wide application and utilization of technology by one or more users.
5	Training Programmes	Training helps to increase farmers technological, educational, and social capabilities.
6	Personal Control and Self-efficacy	Self-efficacy is dealing largely with the ease or difficulty of performing a behavior and personal control is the controllability of an individual to the extent of which performance is up to the actor (Ajzen, 2002).
7	Barriers/Challenges to Participation	The side backs of individual motivation towards success which in contrast limits the peoples' participation. It is where reasons confined with the individual intention to join, affix, linkage, attach, and interconnected with the programme.

# Appendix C

Table C1. Extension educator interview summary

Categories	Respondent 5-Extension Personnel (Faizal) *The name is pseudonym.
1) Gender, Marital Status, Age, & Education Level?	Married Men, Age 30s, Diploma in Agriculture
2) Why this 8 month incubation course is necessary?	"It is crucial and critical period to test them whether they have the ability to move further or withdrawn from the programme courses. We encourage them to this as training ground and give hand-on experience on what input that they want to acquire or learn."
3) What did you see in the farmers? Do they have the quality to strive & success?	"We would like to see the will power inside the entrepreneurs and possible spirit of eagerness for pursuing achievement or successes. Some of them have and few others tend to withdrawn from the programme because can't stand the pressure as entrepreneurs."
4) Explain about the principles of the programme?	"The programme is a hands-on learning approach which related to hand skills. Hence, it also related to cognitive domain where the behavior related to individual ability to knowing and realtime experience practices about knowledge they learned. It is to facilitate farmers (entrepreneur) and equip themselves with knowledge and skills People who accepted as participants will be provided with incentives such as monthly allowance, food allowance and dormitory accommodation. The programme aimed, participant will have sounded agriculture technical skills, agri-entrepreneur skills, develop networking and be able to carry out business contract among other establish entrepreneurs and also shape them up with confidence trait, skillful and competitive After completion, only selected participant that shows capabilities to excel will be grant a land in Permanent Food Production Park Serdang and also be given incentives on agriculture inputs and infrastructure with at par agriculture technology in place or could open agribusiness at their own land."
5) What type of programme do you teach or offered here?	"There are a lot of courses that outlined the programme such as Introduction to Incubator Programme, Business Planning, Project/Business Proposal Preparation, Guidelines for Good Agriculture Practices, Integrated Pest Management, Agricultural Tractors and Small Machine, Open Planting System Project, Fertigation Planting System in Greenhouse Structure Project, Agriculture Project Planting Using Insect Resistance Structure, Farm Record, Agribusiness Marketing, and Farm Visit."

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# Freedom of Religion in Islam and Buddhism: A Comparison Study of the Barriers That Determines the Freedom of Religion

Mutsalim Khareng<sup>1</sup>, Jaffary Awang<sup>1</sup>, Zaizul Ab. Rahman<sup>1</sup>, Rohanee Machae<sup>2</sup> & Khaidzir Ismail<sup>3</sup>

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#### Abstract

Freedom of religion is the human right that supports the individual to choose and practice a religion or belief. In the context of a multiracial society, freedom of religion should be debated openly to avoid any misunderstanding that distracts from harmonious social living. This research is a comparative study that focuses on the principles that determine the barriers of freedom of religion between Islam and Buddhism. For means of accuracy and relevancy of information, the researcher adopts the content analysis approach of the primary references in Islam and Buddhism. The research concludes that both religions share a similar scope of freedom of religion and declare freedom as a right that should be accorded to all. Both religions prioritize the social interest as the main benchmark in discussing the freedom of religion. Even though Islam awards freedom of religion to all, it nevertheless maintains some differences between the rights of Muslims and non-Muslims, i.e. that Muslims do not have the right to change their religion without meriting the label of apostate.

Keywords: freedom, freedom of religion, Islam, Buddhism, harmonious social living, apostasy

## 1. Introduction

Freedom of religion is a basic human right and the aspiration of every individual and society. History shows that all people want their rights to be guaranteed (Al-Qardawi, 1992). Almost all countries declare the freedom of rights in the Law or Constitution (Nurhafilah, 2007). In international law, the Universal Declaration of Human Rights 1948 states a variety of human rights. Among such rights are freedom, justice, fighting for justice, fighting for the truth, right of the minority, an organized economy and development, copyright, social peace, family, women's right, education, freedom of expressions, and religious freedom among others (Adnan, 1996).

The freedom of religion is the 18<sup>th</sup> item of the Declaration of Human Rights are protects freedom of thought and belief. It asserts that no one should be subject to discrimination based on religious beliefs. There have been countless debates relating to human rights since the earliest times of human existence and civilization. This is because of the oppression of that right has resulted in crisis that can ruin harmonious social living (Khadhar, 2010). Therefore, it can be said that freedom of religion is among the most important rights awarded by each religion. This research focuses on identifying the freedom of religion in terms of the principles that determine the barriers of the freedom of religion in Islam and Buddhism.

# 2. Research Background and Problem Statement

The belief that the truth of any religion is a relative truth that places any religions at an equal position and a valid journey to meet the same God is termed religious pluralism. Based on the chronology of history, the idea of religious pluralism is shown to have a broad influence whether in the West or the East, including in the Muslim world. Pluralism shows that the great world faiths symbolize distinct perceptions and conceptions by having distinct responses to the true or the vital from the main cultural different. In addition, the idea claims that the transformation of human existence from self-centredness to reality centeredness is clear, at this point as human reflection can express, it is too much the same extent.

Besides Hick (1987) this idea is also discussed by Smith, W. C. who highlights religious pluralism with the

<sup>&</sup>lt;sup>1</sup> Theology and Philosophy, National University of Malaysia, Malaysia

<sup>&</sup>lt;sup>2</sup> Shariah, National University of Malaysia, Malaysia

<sup>&</sup>lt;sup>3</sup> School of Psychology, Faculty of Social Sciences and Humanities, National University of Malaysia, Malaysia Correspondence: Mutsalim Khareng, Department of Theology and Philosophy, Faculty of Islamic Studies, National University of Malaysia, Malaysia. Tel: 60-12-267-8209. E-mail: habba\_yabnee@hotmail.com

slogan World Theology (Smith, 1989). Knitter, P. also commented about this idea and asserts that it, "cannot be said that religion which one is better that the other." It does not mean, "All religions are relative-that is limited, partial, incomplete, one way of looking at thing. To hold that any religion is intrinsically better than another is felt to be somehow wrong, offensive, narrow-minded," and also mean "deep down, all religions are the same-different paths leading to the same goal" (Knitter, 1985). In summary, religion is the relative human perception towards the ultimate God, and with this relativity, all religions cannot claim or believe their religions are the real truth compared to others. Religious pluralism is practiced by liberal thinkers. The thinking here is built on believing freedom has been one of the important pillars in religion concerning the truth claim towards every religion that is believed by its believers. Pluralistic thought is a new religion that is trying to ruin religious fundamental values, including those of Islam (Adnan, 1994).

Islam clearly rejects this kind of thought, as Allah says in verses *Al-Imran 3: 85, al-Maidah 5: 48, and al-Ahzan 33: 40*. These verses define Islam as the highest-ranking religion compared to other religions. Islam is the only religion accepted and blessed by Allah, and al-Quran and Hadis are the main references and Muhammad (PBUH) is the messenger of Allah.

Even though Islam positions itself as the highest-ranking religion compared to other religions, recently, an alarming debate among Muslim and non-Muslim scholars regarding freedom of religion has emerged. Western scholars such as Dr. Phillip Hitti, Thomas Arnold and Albert Hourani claim that Islam has been spread through roughness of war and colonialism (Zuliza, 1999). These prejudiced perceptions affect Islam negatively as it is contrasting with the war concept in Islam.

In order to show that Islam is a religion concerned very much with the issue of freedom of religion, the researcher offers a few evidences in defence against the negative perceptions that may ruin the good image of Islam. In addition, this research focuses on the freedom of religion in Buddhism, because there are a large number of Buddhist philosophers and scholars like Phramaha Thanandorn Khemapanyo (2003), Phra Brahmagunabhor P. A. Payutto (2008), and Phrakru Patumkantarakon (2011) who state that Buddhism is among the earliest religions giving the right of religious freedom.

Sri Dhammananda, V. D. K. (1992) added further that the right to freedom of religion is followed by the Buddha as explained in the *Kalama Sutta*;

"...it is not to accept something when you already have a thing; it has been a tradition, long time ago, or it is commonly heard..." (Phra, 2008)

The Buddhist teaching above defines Buddhism as giving the opportunity to human beings in choosing, embracing and practicing the religious customs or belief based on the decision of the healthy mind.

That statement encourages the researcher to identify and analyse in detail the freedom of religion based on the Islamic and Buddhist perspectives. The principles determining the barriers of freedom of religion are also discussed in order to identify the existence of similarities and differences between Islam and Buddhism so that the findings can be serve as arguments for inquiries regarding the freedom of religion, especially in Islam.

# 3. Research Methodology

Research methodology is very important in guiding the researchers on proper data collection. Explanation of the methodology will ease the researcher in effecting a systematic research. This research analyses the works related to the issue of freedom of religion produced by academicians. For this purpose, the research adopts the content analysis method, which focuses on the materials from the mass media such as journals, books, written reports and other materials. This method can be used in various fields including politics, social studies, management, education and others. It is very suitable in analysing the current issues and explanations of social curiosity related to the analysis.

# 3.1 Freedom of Religion in the Islamic Perspectives

The use of the word freedom or *hurriyyah* in Arabic offers various meanings. Among such meanings is that it is an antonym for slavery. Islamic teaching claims that all people are born in a pure state of nature (*fitrah*) which they are free from any sin, suppression, inherited weakness and ancestral interruption. Even though they are born free, they do not own the ultimate free as Allah possesses the ultimate autonomy. (Ahmad, 1998). In the legal aspect, it can be defined as the freedom towards the limitless self-freedom because it is among the essential human rights. However, the freedom possessed by an individual cannot be used in trespassing others' freedom of rights (Monir, 2012). Hence, it is understood that freedom has certain limitations that follow the needs of Islamic *shariah*. Islam is concerned with the rights of others. Freedom in the religious scope is created to maintain the

good relationship among believers. This means, without the freedom of religion, the good relationship between believers will not exist.

It is undeniable that Islam is the *syumuliyyah* (*comprehensive*) religion in all aspects of human life. When a person chooses to embrace a religion or an ideology and is willing to perform its obligations, that will determine his or her right and obligations.

Kamali, M. H. (1994) stated that all people have their freedom in evaluating and embracing the religion that they want without any influence from others. This is to support the idea of manifestation of personal liberty where nobody should be forced to accept any religion. In the Islamic context, freedom of religion means that there is no coercion for the non-Muslims to convert to Islam. Apart from that, they are also allowed to practice their religious customs and rituals. Moreover, Muslims and non-Muslims have the rights to spread, protect and fight for their religions from any harmful acts or libel (*fitnah*) taken by anybody. Freedom of religion is a term that shows each human being's right to choose their belief. In that case, nobody has the right to force others to believe in any religion. In contrast, everyone has the right to believe in something based on his or her own decision (as-Saidi, 1999). According to I. Badwi (1980), the freedom in practicing the religion is the ability of human beings to declare their religion and show their belief (*akidah*) while the freedom to belief (*akidah*) is the ability to embrace, or not to embrace, any religion along with the ability to change or not to change their belief (*akidah*).

Even though Islam is the highest ranking religion compared to other religions, as Allah says in the verse *Ali-Imran 3: 19*, it still recognizes the existence of other religions and gives them the right to live as well as respect other religious beliefs. As Allah says in the verse *al-Baqarah 2: 256* that Islam gives the right to all people to choose their belief without any force. Islam takes this libertarian attitude because religion depends upon faith, will, and commitment, not compulsion. Forced faith is no faith at all. Allah states that if He had willed, He could have made all the people believers. However, had that been the case, the faith of the believers would not have been tested, as Allah says in the verse *Yunus 10: 99*,

"If it had been thy Lord's Will, they should all have believed, all who are on earth! Wilt thou then compel mankind, against their will, to believe!"

Ultimately, Allah states that it is His will whether non-Muslims accept Islam or not. According to S. Abdul Ghani (2001), freedom of religion in Islam is not based on the freedom concept, but it is based on the special significance in the *shariah* laws that complement the principles that there is no force in embracing any religion and laws that have the social interest in avoiding Islam from being mocked. Thus, freedom of religion has been consistently enunciated as a norm of the *shariah* regardless of considerations of time and circumstance (Kamali, 1994). It is understood here that Islam has a concept of *syumuliyyah* (comprehensive) which covers all aspects of human life. This means that people who have chosen any religion or ideology are prepared to perform the task of that religion or ideology.

#### 3.2 Freedom of Religion in the Buddhism Perspectives

The good freedom in Buddhism is the freedom that is translated from the moral aspect. It refers to the heart being free from lust (*Anuttara samyak sambodhi*). Nevertheless, if the believers cannot bear the lust, they will experience sadness as stated by Buddha "*Sampang Paravasang thukkhang*" which is slavery towards all fake elements (the world) will also feel the sadness. Conversely, "*Sampang Issariyang Sukhang*" is the real happiness where the heart is calm and free from those fake elements. Buddhism concerns itself much with the freedom of religion. In Buddhism, the good and evil have been stated clearly in the religion, while humans have been given the free mind in choosing whatever they like. The same goes to the religious issue, where Buddhism gives the right to its believers in choosing, identifying and analysing the truth of a belief without any force. In order to ensure that the religion is the truth, each believer should decide based on their healthy mind and knowledge, and not choose or embrace a religion based on a corrupt state of mind (Phrakru, 2011).

Freedom of religion in Buddhism refers to the teaching of the Buddha in the *Tripitaka* that contains ten lessons on the healthy mind in evaluating the truth of certain beliefs in *Kalama sutta kankhaniyatthana*; (a.) be not led by report (*Ma Anusasawen*), (b.) be not led by tradition (*Ma Paramuprai*), (c.) be not led by hearsay (*Ma Itikirai*), (d.) be not led by the authority of texts (*Ma Pithoksamupathanen*), (e.) be not led by mere logic and argument alone (*Ma Takukahettu*), (f.) be not led by inference (*Ma Nayahettu*), (g.) be not led by considering appearances (*Ma Akorpariwitkuken*), (h.) be not led by the agreement with a considered and approved theory (*Ma Thitthinichamanokkukhanuthitaya*), (i.) be not led by seeming possibilities (*Ma Phapuphrutai*) and (j.) be not led by the idea, "this is our teacher" (*Ma Sammanornokhruti*) (Phra, 2008).

The Buddhist follow few attitudes of a good advisor and preacher which are; (a.) there is no bad talking, fighting and blaming other religions, in addition, the Buddhist always uses the healthy mind in arguing for religious truth (Anupanatho), (b.) do not use oppression and do not use physical strength to force people to embrace the religion (Anupakhato), (c.) have good moral behaviour (Patimokukhae sangvarai), (d.) live modestly without luxury (Pattassaming mattanyata), (e.) sit and sleep in quiet and calm plee (Pantang sayanasnang) and (f.) educate the heart to be strong (Athicittae ayokho) (Phramaha, 2003). This attitude proves that Buddhism gives the opportunity to its believers to identify, choose and embrace the religion or belief based on their self-confidence, not by forceful act.

#### 3.3 Principles That Determine the Barriers of the Freedom of Religion between Islam and Buddhism

It cannot be denied that all humans have rights since they were born, but that right does not mean that they can do whatever they like while oppressing others. To avoid from any distraction in harmonious social living, a large number of Muslim scholars like A. Hasan al-illi (1974), A. as-Saidi (1999), A. Wafi (n. d.), W. al-Zuhai (n. d.) highlighted three ways of protecting the freedom of religion by Islam. The first way is as stated in the verse *al-Baqarah 2: 256*, nobody should be forced to leave their religion and accept Islam. By following this principle, the Muslim leaders have allowed their citizens to practice their own religion as long as they paid the poll-tax (*jizyah*) and follow the respective government. The *jizyah* is also regarded as a replacement for them to be excused from the military service. The second way is based on the verse *an-Nahl 16: 22, al-Ankabut 29: 46, al-Baqarah 2: 111* where Islam promote the freedom of individual to spread their religion through comprehensive reasoning and argumentation. Hence, Muslims should use polite reasoning in attracting others to embrace Islam. Other than that, Muslims should also allow the believers to apply the same strategies. The last way listed that Qur'an acknowledges the custom that the real faiths means it does not come from the simulation and total devotion to the customs, but it comes from the confidence and belief. Those statements proved that Islam criticized the pre-Islamic practices and rituals that encouraged blind simulation of ancestral precedents as their ultimate belief.as in the verse of Qur'an *al-Baqarah 2: 170* (Kamali, 1998).

Freedom of religion in Islam portrays the right of an individual. Moreover, Islam protects the freedom of religion completely and Muslims do not have the right to oppress or prohibit others from choosing their belief as well as practicing the religious customs that they believe in. Besides, Islam encourages the opportunity to engage in dialogue with other religions. Islam encourages religious discussion and hopes that Muslims will always be genuine and active when having the dialogue with the non-Muslims. In Islam, any discussion conducted by using clear, rational and knowledgeable arguments may allow people to follow the truth freely, without any force in asking them to embrace Islam.

Islam regards the embracing of Islam by forceful acts as dishonest faith (*iman*). Belief and satisfaction towards a religion is the condition for valid faith (*iman*). That means, if someone forcefully embraces a religion, honesty will never exist.

Freedom of religion in Islam involves the element of choice, not force. Islam teaches the human being to use the rational evidence and the right speech as the pillar in spreading the religion, considering and thinking as well as calling for rejecting those who came without any knowledge or evidence (Wafi, n. d.). The decision to choose a religion or belief should come from understanding, intelligence and knowledge not from believing a religion based on tradition by merely following ancestral belief.

Evidently, Islam gives the right to human beings in choosing the religion or belief, but that does not mean that Muslims can simply change their religion. The freedom of religion is only valid for the non-Muslims to choose and believe as well as practice their religious customs. The changing of religion (from Islam to the other religions) in Islam is called apostasy as Allah says in the verse *al-Nisa* 4: 137.

The verse clarifies that Islam prohibits Muslims from leaving Islam. The issue of apostasy cannot be discussed under the scope of freedom of religion as discussed earlier, but under the laws related to Muslim peace and preserving Islamic laws (Fuad, 2002).

The principles that determine the barriers of freedom of religion in Buddhism refer to the teaching by the Buddha in the *Tripitaka* that contains the ten teachings in *Kalama sutta kankhaniyatthana* as discussed earlier. The free thinkers or the true-seekers community is among the people who asked guidance from Buddha in making decision on which religion to believe in. This is stated in *Kalama sutta kankhaniyatthana* where these young free thinkers are facing confusion in their lives on which religion to choose as each of them has different ways of approaching the people. After they had the discussion with Buddha, he gave them some guidelines on how they can choose their own religion. According to Buddha, people who do not believe in Dhamma will not go to hell as some people considered Dhamma as the only teaching of value in the world. Therefore, Buddha has

highlighted few elements to be looked on by people before choosing the religion. Firstly, Buddha told them that in embracing a religion, faith is the only element to be considered. People should understand the religion fairly at the first place. In other words, blind faith and absolute devotion should not be involved as the ultimate elements in choosing a religion. This statement suggested that the teaching of Buddha is very rational to people. Besides, Buddha also advised the people to choose the religion freely, without being influenced by the frightened idea of getting the horror punishment after their death. Buddha also claimed that in embracing a religion, people must have personal and rational principle, instead of being guided by the law listed by the authorities or supernatural powers (Payutto. 2008).

In Buddhism, human beings have the complete right to think whether to accept or reject a religion. Human beings are free to investigate something and accept it if that thing is equal to their awareness. Based on the statement by Sri Dhammananda, V. D. K. (1992), Buddha asked people to be independent by using their intelligence and free determination. As Buddha said, "You can become your master". In the other words, Buddha did not want people to regard him as the "Enlightened Teacher", where they cannot choose other god to be worshipped. Buddha also wanted the people not to worship him blindly with the promises of they can go to heaven or gain Nirvana without doing other good deeds. This gives the idea that no one should be the slaves of any religious teacher if they really understand the principles of their believed religion. Buddha wanted the people to be independent in reaching their ultimate salvation as no religious teacher can help them to do that. However, they still need to respect the religious teacher. The religious teacher is only a guidance who will tell them what to do in achieving it. This means, nobody will be saved by anybody as they need to be saved on their own. They should be free in achieving their ultimate freedom from mental impurities and worldly suffering. In brief, with the guidelines given by the religious teacher, people should be independent in reaching their ultimate freedom (Ven, 1992).

In Buddhism, the monks and their students do not possess the right to force others to embrace their religion, but they play the role in explaining the religious inquiries. After a clear explanation, the decision whether to embrace or not to embrace Buddhism depends on an individual. In other words, Buddhism gives the freedom to human beings in choosing whether to be an atheist, to leave Buddhism, or any other type of decision without force.

The analysis of the principles that determine the barriers of the freedom of religion indicate that there are Islamic and Buddhist perspectives. However, there are also some differences in the principles of freedom of religion between Islam and Buddhism. In Buddhism, based on the teaching of the Buddha on the freedom of religion prove that there is no force in choosing a religion and everyone has the right to choose, practice and spread their religions, as well as the right to change the religion or become an atheist. It can be said that this right is balanced with the declaration in the constitutions of most of the countries, where all believers have the equal right to embrace, practice as well as spreading the religions, or to remain free of any religion.

In Islam, even though the issue of freedom of religion is very important, but there are always inquiries by the non-Muslims regarding the issue why Islam set the death penalty to Muslims who leave Islam. Several derivatives of the term *riddah* are used in the Qur'an. The usages appear closest to "apostasy". *Riddah* literally means "turning back". *Murtad*, the active participle from *istidda* (to turn back, to renounce), means "one who turns back". In Islamic law, *riddah* is understood to be reverting from the religion of Islam to *kufr*, whether by intention, by an action that would remove one from Islam, or by a statement, be it in the form of mockery, stubbornness or conviction. Jurists of the Sunni legal schools Hanafi, Maliki, Shafi'l and Hanbali, classify apostasy in three categories; belief-related, action-related and utterance-related (Saeed, A. & Saeed, H. 2004).

In this issue, most Muslim philosophers come with their arguments and opinions to defend the purity of Islam for instance, Muhammad Mutawalli al-Sha'rawistated in his writing entitled "You Asked and Islam Answers" that everyone has the right to choose, embrace and practice any religions, but once they embraced Islam, that freedom is invalid as they are tied to Islam. If someone wanted to leave Islam, he or she will be punished including the death penalty. In summary, everyone has the right to choose and embrace Islam, but after that, they are not free to leave Islam. According to Lewis, B. limitation on religious freedom, from the Islamic perspective, is that while individuals have the freedom to accept or reject Islam, freedom of worship and belief, the majority of classical scholar have argued that the *shariah* does not permit a Muslim to deny or denounce his/her religion (apostasy) once he/she has accepted Islam. From a Muslim religious point of view, this discrepancy is both logical and proper. To promote the true faith is a divine commandment. To abandon it or to persuade another to do so is both a major sin and a capital crime (Lewis, 1993). In his monograph, *The Punishment of Apostasy in Islam*, S. A. Rahman argues that not only is the Qur'an silent on the punishment for apostasy, but hadith which indicate punishment by death have a weak chain of transmission. Some have argued that although apostasy is a sin in Islam, it carries no punishment, while others have argued that the penalty for apostasy is in the Hereafter

only (Ahmad, 1998). In light of this, it is not surprising to find a number of prominent scholars, across the centuries, subscribing to the view that apostasy is not a punishment offence. According to Mahmasani, the death penalty was meant to apply, not to simple acts of apostasy from Islam, but when apostasy was linked to an act of political betrayal of the community. The Prophet Muhammad (PBUH) never killed anyone solely for apostasy. This being the case, the death penalty was not meant to apply to a simple change of faith but to punish acts such as treason, joining forces with the enemy and sedition (Kamali, 1994). In this case, it is understood that the barriers of freedom of religion in Islam shows the difference of rights among the Muslims and non-Muslims. A person, who has embraced Islam, does not have the right to change the religion or become the atheist, as the act can be regarded as a crime that can lead to punishment.

#### 4. Conclusion

As a whole, the research findings suggest that the definition of freedom of religion whether from the Islamic or Buddhist perspective share a similar scope which is the freedom to embrace, practice and spread the religion. Both religions declare the freedom of religion as the right of everyone. Both religions prioritize the social interest as the main benchmark in talking about the freedom of religion. In the other words, if the practice or the spreading of religion affects the social interest negatively whether in relation to health, safety or harmonious social living. It can be punished by the government as the reason for protecting the social interest. There are different sources that prove the fact of the freedom of religion. The declaration of the freedom of religion in Islam is based on the *al-Qur'an* and *Hadith* by Prophet Muhammad (PBUH). Whereas, the certification of the religious freedom in Buddhist perspectives are focused on the philosophy from the Buddha's teaching. In conclusion, the statement that Islam is spread by war and colonialism is not true as it contrasts with the freedom of religion promoted by Islam. In fact, the toleration in Islam gives the right to the non-Muslims in practicing their belief even though they are leading far from the truth of Islam.

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# Determinants of Operational Efficiency of Microfinance Institutions in Bangladesh

Mohd. Abdur Rahman<sup>1</sup> & Ahmad Rizal Mazlan<sup>2</sup>

Correspondence: Mohd. Abdur Rahman, In-House Multimedia Academy, G&M Floor, Bangunan Yee Seng, 15 Jln Raja Chulan, 50200, Kuala Lumpur, Malaysia. Tel: 60-3-2070-2819. E-mail: rahmanshaikot@gmail.com

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#### Abstract

This paper investigates the performance of operational self-sufficiency and its determinants of Microfinance Institutions (MFIs) and compared their positions in Bangladesh. The study used secondary quantitative data from the MIX market website where containing information from financial statements from the MFIs operating in Bangladesh. Toward the achievement of its objectives the study used descriptive statistical and financial ratio analysis techniques as well as econometric technique on the several performance indicators standardized by CGAP to measure of MFIs performance. The multiple regression technique used to measure the determinants of operational self-sufficiency to justify with yield on gross loan portfolio (nominal), cost per borrower, average loan balance per borrowers, age of MFIs, and number of active borrowers and operating expense ratio of MFIs in Bangladesh. The multiple regression output revealed that most of the MFIs are operational self-sufficiency to operate their operations in this region. However, study recommended for policy considerations of the successful and effective operation of microfinance programs through simplify of distribution of loan, improve yield on gross loan portfolio, personnel productivity and reduces of borrowing fund from the donors, reducing operating cost, utilize resources to generate financial revenue and focused on increase of value of their total assets in Bangladesh.

Keywords: microfinance, microfinance institutions (MFIs), operational self-sufficiency and Bangladesh

#### 1. Introduction

The Microfinance Institutions (MFIs) target the poor through innovative approaches, which include group lending, progressive lending, regular repayment schedules, and collateral substitutes (Thapa, 2007). The sustainable operational growth is essential for each of MFIs, to continue their operation smoothly. But previous studies in different countries have revealed mixed results with regards to the efficiency and financial sustainability of the MFIs. Gopal et al. (2011) examined the outreach and sustainability of microfinance institutions in the district of Assam, India. Analysis through various financial performance indicators such as Operational Self Sufficiency (OSS), Financial Self Sufficiency (FSS), Subsidy Dependence Index (SDI) and Subsidy Dependence Ratio (SDR) were conducted. He found that although the MFIs reached a large number of clients, analysis indicates that MFIs are still financially not self-sufficient which is reflected by a number of calculated indicators.

In a similar study, Martinez-Gonzalez (2008) also capitalized that, most MFIs have been more efficient in pursuing sustainability but fall short of achieving the breath of outreach to the targeted poor people in the country Martinez-Gonzalez (2008). However, Bayeh (2012) identifies factors affecting financial sustainability of MFIs in Ethiopia. The study found that microfinance breadth of outreach, depth of outreach, dependency ratio, and cost per borrower significantly affect the financial sustainability of microfinance institutions in Ethiopia. However, the microfinance capital structure and staff productivity have an insignificant impact on financial sustainability of MFIs in Ethiopia during the period of study. Moreover, other studies also indicate that there is a positive relationship between MFI efficiency and domestic financial development (Hermes, Lensink, & Meesters, 2009).

<sup>&</sup>lt;sup>1</sup> In-House Multimedia Academy, G&M Floor, Bangunan Yee Seng, 15 Jln Raja Chulan, Kuala Lumpur, Malaysia

<sup>&</sup>lt;sup>2</sup> School of Economics, Finance & Banking, Universiti Utara Malaysia, Sintok, Kedah, Malaysia

Thapa (2007) also compared the outreach of Bangladesh MFIs with those in other countries. Several other studies examined the level of financial sustainability and outreach as a case study in certain MFIs from Bangladesh. Nonetheless, no study has covered all MFIs in Bangladesh. In addition, several other studies have examined the level of financial sustainability and outreach as a case study in certain MFIs from Bangladesh. However, no study has covered all MFIs in Bangladesh. Based on the existing gap in previous researches, this study will make an attempt to fill that gap by measuring operational self-sufficiency and determining the determinants of operational of microfinance institutions (MFIs) in Bangladesh.

#### 2. Literature Review

Annim, S. K. in 2012 tested two hypotheses; first, they argued that there is a trade-off between the social objectives of MFIs and their financial efficiency and secondly, they asserted complementarity between the external environment and MFIs' social efficiency. The study showed that financialy efficient MFIs failed to reach out to poorer clients; on the other hand, socialy efficient MFIs reached out to poorer clients. They also observed that bureaucracies in property registration and a lack of credit information adversely affected the social efficiency of MFIs. The research recommended that the effective role of external institutions and the removal of information barriers are important for reducing poverty through microfinance intervention (Annim, 2012). Moreever, examined by Arnone, M., C. B. Pellegrini, et al. in 2012, presents an empirical analysis of the operational efficiency of microfinance institutions. The analysis showed that operating costs and efficiency are negatively related. It pointed out that operating costs are less when institutions give high focus on traditional financial aspects of commercial banking, thereby improving their efficiency, and enhancing the development of the sector and the quality of offered services. Successively, the study tried to figure out the effect of these factors in different geographical regions. Finally, the study highlighted the importance of various legal and organizational frameworks and macro-governance features (Arnone, Pellegrini, Messa, Pellegrini, & Sironi, 2012).

Bassem, B. S. in 2008 by applying the non-parametric Data Envelopment Analysis (DEA) method with all the limitations where error could cause significant problems, investigated the efficiency of 38 Microfinance institutions in the Mediterranean region. Results found that eight institutions are relatively efficient, and have a notable level of average efficiency and a potential of evolution while being referent to their technical efficiency. The survey ended by proposing that the size of the MFIs has a negative effect on their efficiency since the MFIs of medium size are more efficient than the eminent (Bassem, 2008). However, Gregoire, J. R. and O. Ramírez Tuya in 2006 analyzed the efficiency of Microfinance Institutions (MFIs) in Peru by estimating a stochastic cost frontier. The main findings of the study resolved that MFIs with the largest assets tend to post the highest efficiency levels, and that MFIs operating in less concentrated markets tend to be more efficient. Thus, the cost efficiency of MFIs is affected by average loan size, proportion of net assets, financial sufficiency, financial leverage, business experience and proportion of farm loans (Gregoire & Tuya, 2006).

Gutiérrez-Nieto, B., C. Serrano-Cinca, et al. in 2007 analyzed Microfinance Institutions (MFIs) as special financial institutions; they have both a social nature and a for-profit nature. This study used a data envelopment analysis (DEA) approach to measure the efficiency of MFIs. The results revealed that MFIs efficiency can be explained by means of four principal components of efficiency, and by this way, the differences between the DEA scores can be understood. Moreover, it has shown that there are country effects on efficiency; and effects that depend on non-governmental organization (NGO)/non-NGO status of the MFI (Gutiérrez-Nieto, Serrano-Cinca, & Molinero, 2007). In the same way, in 2009, Gutiérrez-Nieto, B., C. Serrano-Cinca, et al. asserted that microfinance institutions (MFIs) are a special case in the financial world and it has a double financial and social role and needs to be efficient at both. The study measured the efficiency of MFIs in relation to financial and social outputs using data envelopment analysis. They added two indicators of social performance: impact on women and a poverty reach index. The observation studied the relationship between social and financial efficiency, and the relationship between efficiency and other indicators, such as profitability. Other aspects studied are the relation between social efficiency and type of institution Non-Governmental Organization (NGO), non-NGO, and the importance of geographical region of activity. The findings reveal the importance of social efficiency assessment (Gutiérrez-Nieto, Serrano-Cinca, & Molinero, 2009).

Hartarska, V. and R. Mersland in 2012 evaluated the effectiveness of several governance mechanisms on microfinance institutions' (MFI) performance. The study explored the impact of measurable governance mechanisms on the individual efficiency coefficients. The results indicated that efficiency increases with a board size of up to nine members and decreases after that. MFIs in which the CEO chairs the board and those with a larger proportion of insiders are less efficient. Moreover, the study didn't find consistent evidence for the effect of competition, but it found weak evidence that MFIs in countries with mature regulatory environments reach

fewer clients, while MFIs regulated by an independent banking authority are more efficient. The evidence recommended that donors' presence on the board is not beneficial (Hartarska & Mersland, 2012). Furthermore, Hartarska, V., X. Shen, et al. in 2013 evaluated the efficiency of microfinance institutions (MFIs) using a structural approach which also captures institutions' outreach and sustainability objectives. The study estimated economies of scale and input price elasticities for lending-only and deposit-mobilizing MFIs using a large sample of high-quality panel data. The outcomes confirm that improvements in efficiency can come from the growth or consolidations of MFIs, as they find substantial increasing returns to scale for all but profitability-focused deposit-mobilizing MFIs. It also supported the existence of a trade-off between outreach and sustainability (Hartarska, Shen, & Mersland, 2013).

Hermes, N., R. Lensink, et al. in 2011 used stochastic frontier analysis to examine whether there is a trade-off between outreach to the poor and efficiency of microfinance institutions (MFIs). Findings resolved convincing evidence that outreach is negatively related to efficiency of MFIs. More specifically, the observation found that MFIs that have a lower average loan balance (a measure of the depth of outreach) are also less efficient. Moreover, those MFIs that have more women borrowers as clients (again a measure of the depth of outreach) are less efficient. These results remain robustly significant after having added a number of control variables (Hermes, Lensink, & Meesters, 2011). On the other hand, in 2011, Hudon, M. and D. Traca used an original database of rating agencies; this study gave empirical evidence on the impact of subsidy intensity on the efficiency of Microfinance Institutions (MFIs). Findings resolved that subsidies have had a positive impact on efficiency, in the sense that MFIs that received subsidies are more efficient than those that do not. However, it also found that subsidization beyond a certain threshold renders the marginal effect on efficiency negative. Moreover, marginal cut on subsidy intensity would increase their efficiency (Hudon & Traca, 2011).

#### 3. Methodology

The present study used descriptive, econometrics statistical, and financial ratio analysis techniques on the secondary data of existing selected MFIs in Bangladesh. The secondary data of all selected MFIs in Bangladesh was extracted from the prominent microfinance online database, Mix Market (MIX, 2013) from the year of 2005 to 2011. There are five MFIs that have been selected from the Bangladesh. The selection of MFIs has been done based on the highest number of active borrowers in the Bangladesh.

Table 1. The distribution of top MFIs in BD by the number of borrowers

Name of top MFIs in BD	No. of Borrowers
Grameen Bank	6710000
BRAC	4193218
ASA	4181690
BURO Bangladesh	850792
TMSS	574981

Sources: (Mixmarket, 2013)

Table 2. The distributions of the efficiency measurement indicators and ratios

Efficiency (%)	
Operating Expenses/Loan Portfolio	Operating Expense/Average Gross Loan Portfolio
Personnel Expenses/Loan Portfolio	Personnel Expense/Average Gross Loan Portfolio
Average Salary/GNI per capita	Average Personnel Expense/GNI percapita
Cost Per Borrower	Operating Expense/Average Number of Active Borrowers
Cost Per Loan	Operating Expense/Average Number of Loans Outstanding

Sources: Adopted from (CGAP, 2003)

Operating expense ratio is the most commonly used efficiency indicator for MFIs that includes all administrative and personnel expense. MFIs that provide smaller loans will compare unfavorably to others, even though they may be serving their target market efficiently. Likewise, MFIs that offer savings and other services will also compare unfavorably to those that do not offer these services, if gross loan portfolio is used as the denominator. Cost per borrower provides a meaningful measure of efficiency by showing the average cost of maintaining an

active borrower. Since the size of the loans is not part of the denominator, institutions with larger loans do not automatically appear more efficient, as is the case with the operating expense ratio.

Moreover, multiple regression models have been used to measure of determinants of financial self-sufficiency of microfinance institutions (MFIs) in Bangladesh. To measure the predictor variables of financial self-sufficiency, seven measures are used as independent variables which were extracted from Woldeyes in 2012 (Woldeyes, 2012), namely Age of MFIs, Cost per Borrower, Liquidity Ratio, Number of Active Borrowers, Operating Expense Ratio and Yield on Gross loan Portfolio (Nominal).

Table 3. Description of dependent variables

Variable Name	Measurement Formula
Financial Self-Sufficiency (FSS)	Adjusted Financial revenue/(Financial expense + Loan loss provision + Operating expenses + Expense Adjustment)
Operational Self-Sufficiency (OSS)	Financial revenue/(Financial expense+ Impairment losses + Operating expenses)

Sources: (Woldeyes, 2012)

Table 4. Description of independent variables

S.N	Variables Standard Name	Description	Variable name in regression model
1	Age of MFIs	Age of MFIs since their establishment	AGE
2	Cost Per Borrower	Adj. Operating Expense/Adj. Av. No. of Active Borrowers	СРВ
3	Number of Active Borrowers	Number of active borrowers with loans outstanding	lnNAB
4	Operating Expense Ratio	The ratio of operating expense to the gross loan portfolio	OER
5	Yield on Gross loan Portfolio (Nominal)	Adjusted financial revenue from Loan Portfolio/Adj. average GLP	YIELD
6	Average Loan Balance per Borrowers	Adj. GLP/Adj. Number of Active Borrowers	lnALBPB
7	Debt to Equity Ratio	Adj. Total Liabilities/Adj. Total Equity	DER
8	Personnel Productivity Ratio	The expense incurred for personnel per the loan portfolio	PPR
9	Size of MFI	Total Asset of MFI	SIZE

Sources: (Woldeyes, 2012)

Regression Model for Operational Efficiency of MFIs:

OSSit = 
$$\alpha$$
i +  $\beta$ 1 YIELDit +  $\beta$ 2LnSIZEit +  $\beta$ 3PPRit +  $\beta$ 4DERit +  $\beta$ 5CPBit +  $\beta$ 6ALBPBit +  $\beta$ 7LnAGEit +  $\beta$ 8LnNABit  $\beta$ 9OERit +  $\epsilon$ it (1)

Where: OSS it is the operational self-sufficiency ratio of microfinance i at time t (which is the dependent variable);  $\alpha i$  is a constant term;  $\beta$  measures the partial effect of independent or explanatory variables in period t for the unit i (MFI); X it are the explanatory variables as described in the above table; and  $\epsilon$  it is the error term. The variables, both dependent and independent, are for cross-section unit i at time t, where i = MFI (1 to n), and t = 1 to 9.

#### 4. Findings and Discussion

4.1 Operational Self-Efficiency of MFIS

#### 4.1.1 ASA Efficiency over the Period of 2005-2011

Table 5 shows the distribution of average efficiency of ASA over the period of 2005-2011. The study has found that the value for operating expense per loan portfolio is 0.11639 with the ratio of personnel expense per loan portfolio turning out at 0.10093 accordingly. Meanwhile average salary to per GNI per capita stands at 3.47857, while cost per borrower and cost per loan is valued at 10.1084 and 10.0884, respectively.

Table 5. Distribution of efficiency of ASA in Bangladesh (average value from 2005 to 2011)

Indicators	Indicators		Efficiency Of ASA						
		2005	2006	2007	2008	2009	2010	2011	
Operating Portfolio	Expenses/Loan	0.0849	0.0944	0.1125	0.1506	0.1283	0.1313	0.1127	0.11639
Personnel Portfolio	Expenses/Loan	0.073	0.0825	0.0938	0.1318	0.1123	0.1153	0.0978	0.10093
Average Salar	y/GNI per capita	2.88	3.09	3	4.39	3.83	3.87	3.29	3.47857
Cost Per Borr	ower	5.57	5.6603	7.0848	10.9908	11.9434	15.32	14.1895	10.1084
Cost Per Loan	1	5.4297	5.6603	7.0848	10.9908	11.9434	15.32	14.1895	10.0884

(Source: MIX Market database, 2013)

#### 4.1.2 BRAC Efficiency over the Period of 2005-2011

Table 6 shows the distribution of average efficiency of BRAC over the period of 2005-2011. The study found that the value for operating expense per loan portfolio is 0.12651 with the ratio of personnel expense per loan portfolio turning out at 0.10951 accordingly. Meanwhile, average salary to per GNI per capita stands at 4.18714 as well as cost per borrower and cost per loan is valued at 11.2912 and 11.0252, respectively.

Table 6. Distribution of efficiency of BRAC in Bangladesh (average value from 2005 to 2011)

Indicators	Efficien	cy of BRA	AC					Average
	2005	2006	2007	2008	2009	2010	2011	
Operating Expenses/Loan Portfolio	0.15	0.1322	0.1466	0.1106	0.101	0.1165	0.1287	0.12651
Personnel Expenses/Loan Portfolio	0.12	0.1096	0.1257	0.1	0.0933	0.1033	0.1147	0.10951
Average Salary/GNI per capita	3.86	3.61	3.88	3.67	4.53	5	4.76	4.18714
Cost Per Borrower	9.4217	9.3936	11.7725	10.2307	10.3168	12.535	15.3684	11.2912
Cost Per Loan	9.2427	9.3186	11.652	10.0141	10.0433	12.22	14.6856	11.0252

Source: MIX Market Database (2013)

#### 4.1.3 GB Efficiency over the Period of 2005-2011

Table 7 shows the distribution of average efficiency of GB over the period of 2005-2011. The study found that the value for operating expense per loan portfolio is 0.11681 with the ratio of personnel expense per loan portfolio turning out at 0.07476. Meanwhile, average salary to per GNI per capita stands at 4.01, accordingly. Cost per borrower and cost per loan values are at 12.3492 and 12.2277, respectively.

Table 7. Distribution of efficiency of GB in Bangladesh (average value from 2005 to 2011)

Indicators	Efficiency of GB							Average	
		2005	2006	2007	2008	2009	2010	2011	
Operating Portfolio	Expenses/Loan	0.126	0.112	0.1272	0.1087	0.1122	0.1184	0.1138	0.11681
Personnel Portfolio	Expenses/Loan	0.075	0.072	0.08	0.0734	0.0764	0.0757	0.0712	0.07476
Average Salary	y/GNI per capita	4.44	3.9	3.66	3.35	4.05	4.62	4.05	4.01
Cost Per Borro	ower	10.95	9.196	10.6454	10.3195	12.9536	15.989	16.3907	12.3492
Cost Per Loan		10.1	9.196	10.6454	10.3195	12.9536	15.989	16.3907	12.2277

(Source: MIX Market database, 2013)

#### 4.1.4 BURO BD Efficiency over the Period of 2005-2011

Table 8 shows the distribution of average efficiency of BURO BD over the period of 2005-2011. The study found that the value for operating expense per loan portfolio is 0.15991 with the ratio of personnel expense per loan portfolio turning out at 0.1125 accordingly. Meanwhile, average salary to per GNI per capita stands at 2.50429 accordingly. Cost per borrower and cost per loan values are at 14.8283 and 13.3048, respectively.

Table 8. Distribution of efficiency of BURO BD in Bangladesh (average value from 2005 to 2011)

Indicators	Efficien	cy of BUl	RO BD					Average
	2005	2006	2007	2008	2009	2010	2011	
Operating Expenses/Loan Portfolio	0.1392	0.1524	0.1678	0.1702	0.1636	0.1737	0.1525	0.15991
Personnel Expenses/Loan Portfolio	0.0954	0.1037	0.1168	0.1166	0.1135	0.1293	0.1122	0.1125
Average Salary/GNI per capita	2.79	2.78	2.52	2.61	2.31	2.44	2.08	2.50429
Cost Per Borrower	11.461	12.938	14.9998	15.794	15.9986	17.9252	14.6817	14.8283
Cost Per Loan	9.3137	11.006	13.2395	14.5849	14.9172	16.5458	13.5266	13.3048

(Source: MIX Market database, 2013)

#### 4.1.5 TMSS Efficiency over the Period of 2005-2011

Table 9 shows the distribution of average efficiency of GB over the period of 2005-2011. The study found that the value for operating expense per loan portfolio is 0.16563 with the ratio of personnel expense per loan portfolio turning out at 0.11777 accordingly. Meanwhile, average salary to per GNI per capita stands at 2.5 accordingly. Cost per borrower and cost per loan values are at 15.5597 and 15.1434, respectively.

Table 9. Distribution of efficiency of TMSS in Bangladesh (average value from 2005 to 2011)

Indicators	Efficien	cy of TM	SS					Average
	2005	2006	2007	2008	2009	2010	2011	
Operating Expenses/Loan Portfolio	0.178	0.1748	0.2121	0.1726	0.1455	0.1526	0.1238	0.16563
Personnel Expenses/Loan Portfolio	0.1132	0.1065	0.1334	0.1332	0.1189	0.123	0.0962	0.11777
Average Salary/GNI per capita	2.42	1.81	2.19	2.75	2.78	3.19	2.36	2.5
Cost Per Borrower	11.928	12.517	16.339	14.8541	15.8086	20.4566	17.0148	15.5597
Cost Per Loan	11.267	12.367	15.8631	14.539	15.3415	19.8539	16.772	15.1434

Table 10. Distribution of overall efficiency of MFIs in Bangladesh (average value from 2005 to 2011)

Efficiency of MFIs (average score from 2005 to 2011)								
	ASA	BRAC	GB	BURO BD	TMSS			
Operating Expenses/Loan Portfolio	0.11639	0.12651	0.11681	0.15991	0.166			
Personnel Expenses/Loan Portfolio	0.10093	0.10951	0.07476	0.1125	0.118			
Average Salary/GNI per capita	3.47857	4.18714	4.01	2.50429	2.5			
Cost Per Borrower	10.1084	11.2912	12.3492	14.8283	15.56			
Cost Per Loan	10.0884	11.0252	12.2277	13.3048	15.14			
Operational Self-Sufficiency	1.92739	1.0759	1.60561	1.17539	1.13			

Source: MIX Market Database (2013)

#### 4.1.6 MFIs Efficiency over the Period of 2005-2011

Based on the findings and analysis, it is found that the average values for Operating Expenses/Loan Portfolio of ASA, GB BRAC, BURO Bangladesh and TMSS is 0.11639, 0.12651 0.11681, 0.15991, and 0.166, respectively. Moreover, in terms of efficiency, TMSS has the highest proportion of operating expense to loan portfolio at 0.166 and ASA the lowest at 0.11639, accordingly. Moreover, in the case of the average values for Personnel Expenses/Loan Portfolio of ASA, GB BRAC, BURO Bangladesh and TMSS is 0.10093, 0.10951, 0.07476, 0.1125, and 0.118, respectively. Moreover, in terms of efficiency, TMSS has the highest proportion of operating expense to loan portfolio at 0.166 and GB the lowest at 0.07476, accordingly.

In terms of the average values for Average Salary/GNI per capita of ASA, GB BRAC, BURO Bangladesh, and TMSS is 3.47857, 4.18714, 4.01, 2.50429, and 2.5, respectively. Moreover, in terms of efficiency, BRAC has the highest proportion of operating expense to loan portfolio at 4.18714 and TMSS the lowest at 2.5, accordingly. Furthermore, in the case of the average values for Average Salary/GNI per capita of ASA, GB BRAC, BURO Bangladesh, and TMSS is 10.0884, 11.0252, 12.2277, 13.3048, and 15.14, respectively. Moreover, in terms of efficiency, TMSS has the highest proportion of operating expense to loan portfolio at 15.14 and ASA the lowest at 10.0884, accordingly.

In terms of efficiency, ASA has the highest proportion of operating expense to loan portfolio at 0.12708 and GB the lowest at 0.11606. Moreover, in terms of Personnel Expenses to Loan Portfolio, ASA also has the highest score 0.1102 and GB has the lowest 0.07534, respectively. However, in terms of Average Salary to GNI per capita, GB has the highest score 3.946 and BRAC has the lowest 4.368, respectively. On the other hand, for Cost per Borrower BRACK has the highest score 13.2597 and ASA has the lowest 4.368, respectively. This means that ASA, GB BRAC, BURO Bangladesh, and TMSS can be considered to be Operationally Self Sustainable.

#### 4.2 Regression Result of Determinants of OSS

The estimated result of multiple regression analysis is also at a quite satisfactory level where the adjusted  $R^2$  is 0.80 and observed  $R^2$  value is 0.73, respectively. The value of adjusted  $R^2$  revealed that there are good relationships with dependent variables and independent variables where all independent variables can explain about 73% of the operational self-sufficiency. On the other hand, the ANOVA table also reflects the goodness of model and F-test estimates that the regression is quite meaningful in the sense that the dependent variable is related to each specific explanatory variable.

Table 11. The distribution of regression result of OSS of MFIs in Bangladesh

Model	Unstandardize	ed Coefficients	Standardized Coefficients	4	G:-
	В	Std. Error	Beta	ι	Sig.
(Constant)	2.544	4.337		.587	.563
YIELD	747	3.322	034	225	.824
PPR	-1.162	7.477	034	155	.878
DER	.015	.032	.084	.479	.636
CPB	.126	.085	.622	1.485	.150
OER	-10.914	7.212	444	-1.513	.143
LN_SIZE	.083**	.032	.366	2.617	.015
LN_ALBPB	-1.395	.935	522	-1.492	.148
LN_Ages	751***	.228	399	-3.287	.003
LN_NAB	.401***	.105	.674	3.832	.001
R-Squared 0.80					
Adjusted R-Squ	ared 0.73				
F-statistic 11.26	4				
Prob. (F-stat.) .0	000				

<sup>\*\*\*</sup> Significant at 1%; \*\* Significant at 5%

The linear relation of the model is highly significant where the p value for the F is less than 0.001% level. Furthermore, the estimated coefficient also denoted from the model that most of the variables are significantly related at the 0.01 and 0.05 levels, which is significantly different than zero.

Moreover, the regression result also reveals that Size of MFIs (SIZE) Cost Per Borrower (CPB) and Personnel Productivity Ratio (PPR) positively explain the financial self-sufficiency of MFIs in Bangladesh. On the other hand, variables of average Loan Balance per Borrowers (ALBPB), Age of MFIs (AGE) Debt to Equity Ratio (DER), Operating Expense Ratio (OER), and Number of active borrowers (NAB) have a negative effect on the financial self-sufficiency at a significant level of FSS of MFIs in Bangladesh whereas the Yield on Gross loan Portfolio (YIELD) of MFIs is also positive but not at a significant level.

Table 12. The distribution of hypothesis status of OSS of MFIs in Bangladesh

Hypothesis	В	Sig.	Status
H1b: There is a significant positive relationship on the yield on gross loan portfolio of microfinance institutions with operational self-sufficiency	-0.747	0.824	Rejected
H2b: There is a positive significant relationship between Size of microfinance institutions and operational self-sufficiency.	-1.162	0.878	Rejected
H3b: There is a positive significant relationship between personnel productivity ratio and operational self-sufficiency.	0.015	0.636	Accepted
H4b: There is a negative significant relationship between debt to equity ratio of microfinance institutions with operational self-sufficiency.	0.126	0.15	Rejected
H5b: Cost per borrower is negatively related and operational self-sufficiency.	0.401	0.001	Rejected
H6b: There is a significant positive relationship between average loan balances per borrower to operational self-sufficiency.	0.083	0.015	Accepted
H7b: Age of a microfinance institution is significantly and positively related to operational self-sufficiency.	-1.395	0.148	Rejected
H8b: There is significant positive relationship between number of active borrowers and operational self-sufficiency.	-0.751	0.003	Rejected
H9b: There is a negative significant relationship between operating expense ratio and operational self-sufficiency.	-10.914	0.143	Accepted

Finally, the study found that estimated result of multiple regression analysis is also at a quite satisfactory level where the adjusted R² is 0.73 and observed R² value is 0.80, respectively. The value of adjusted R² revealed that there are good relationships with dependent variables and independent variables where all independent variables can explain about 73% of the financial self-sufficiency. Moreover, the study recommends for policy considerations of the successful and effective operation of microfinance programs by simplifying distribution of loan, improving yield on gross loan portfolio, personnel productivity and reducing of borrowing funds from the donors, reducing operating cost, utilizing resources to generate financial revenue and focus on increasing the value of their total assets in Bangladesh.

#### 5. Conclusion and Recommendations

As this paper aims to measure the performance of operational self-sufficiency and its determinants of Microfinance Institutions (MFIs) and compared their positions in Bangladesh. Based on the findings and analysis, it is found that the average values for Operating Expenses/Loan Portfolio of ASA, GB BRAC, BURO Bangladesh and TMSS is 0.11639, 0.12651 0.11681, 0.15991, and 0.166, respectively. Moreover, in terms of efficiency, TMSS has the highest proportion of operating expense to loan portfolio at 0.166 and ASA the lowest at 0.11639, accordingly. Moreover, in the case of the average values for Personnel Expenses/Loan Portfolio of ASA, GB BRAC, BURO Bangladesh and TMSS is 0.10093, 0.10951, 0.07476, 0.1125, and 0.118, respectively. Moreover, in terms of efficiency, TMSS has the highest proportion of operating expense to loan portfolio at 0.166 and GB the lowest at 0.07476, accordingly.

In terms of the average values for Average Salary/GNI per capita of ASA, GB BRAC, BURO Bangladesh, and TMSS is 3.47857, 4.18714, 4.01, 2.50429, and 2.5, respectively. Moreover, in terms of efficiency, BRAC has the highest proportion of operating expense to loan portfolio at 4.18714 and TMSS the lowest at 2.5, accordingly. Furthermore, in the case of the average values for Average Salary/GNI per capita of ASA, GB BRAC, BURO Bangladesh, and TMSS is 10.0884, 11.0252, 12.2277, 13.3048, and 15.14, respectively. Moreover, in terms of

efficiency, TMSS has the highest proportion of operating expense to loan portfolio at 15.14 and ASA the lowest at 10.0884, accordingly. In terms of efficiency, ASA has the highest proportion of operating expense to loan portfolio at 0.12708 and GB the lowest at 0.11606. Moreover, in terms of Personnel Expenses to Loan Portfolio, ASA also has the highest score 0.1102 and GB has the lowest 0.07534, respectively. However, in terms of Average Salary to GNI per capita, GB has the highest score 3.946 and BRAC has the lowest 4.368, respectively. On the other hand, for Cost per Borrower BRACK has the highest score 13.2597 and ASA has the lowest 4.368, respectively. This means that ASA, GB BRAC, BURO Bangladesh, and TMSS can be considered to be Operationally Self Sustainable.

The study also found that estimated result of multiple regression analysis is also at a quite satisfactory level where the adjusted R<sup>2</sup> is 0.73 and observed R<sup>2</sup> value is 0.80, respectively. The value of adjusted R<sup>2</sup> revealed that there are good relationships with dependent variables and independent variables where all independent variables can explain about 73% of the financial self-sufficiency. Moreover, the study recommends for policy considerations of the successful and effective operation of microfinance programs by simplifying distribution of loan, improving yield on gross loan portfolio, personnel productivity and reducing of borrowing funds from the donors, reducing operating cost, utilizing resources to generate financial revenue and focus on increasing the value of their total assets in Bangladesh.

Finally, regression result also reveals that Size of MFIs (SIZE) Cost Per Borrower (CPB) and Personnel Productivity Ratio (PPR) positively explain the financial self-sufficiency of MFIs in Bangladesh. On the other hand, variables of average Loan Balance per Borrowers (ALBPB), Age of MFIs (AGE) Debt to Equity Ratio (DER), Operating Expense Ratio (OER), and Number of active borrowers (NAB) have a negative effect on the financial self-sufficiency at a significant level of FSS of MFIs in Bangladesh whereas the Yield on Gross loan Portfolio (YIELD) of MFIs is also positive but not at a significant level.

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# The Use of *Wa'Dan* in Islamic Contract FX Forward: Weighting between *Maslahah* and *Mafsadah*

Azlin Alisa Ahmad<sup>1</sup>, Salmy Edawati Yaacob<sup>1</sup> & Mat Noor Mat Zain<sup>1</sup>

Correspondence: Azlin Alisa Ahmad, Department of Syariah, Fakulty of Islamic Studies, The National University of Malaysia, 43600 Bangi, Selangor, Malaysia. E-mail: azlinalisa@gmail.com

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#### **Abstract**

Islamic foreign exchange forward contract widely use the principle of wa'd in order to fulfil the need of hedging. The contract is an alternative solution to conventional forward contract, whereby one party will promise to the other party to exchange currency at an agreed rate for a future date. The adaptation of wa'd (unilateral promise) or wa'dan (two unilateral promise) is seen as an exit mechanism or makharij to the impermissible conventional derivatives contract. Some opined that it is merely mimicking conventional products and labelling them as 'Islamic' in form alone. As a subsequence, it gives the same effect as conventional derivative contract and would create some economic problems. Hence, the objective of this paper is to examine the Islamic foreign exchange forward contract based on wa'dan in shariah perspectives, whether it will attain maslahah or mafsadah to the people. This study took the form of a qualitative study using the approach of content analysis method as a research design. Documents analysed in this study are al-Quran and some related maxims of jurisprudence. This study found that Islamic foreign exchange forward contract give some maslahah to the parties involved, including investors, financial institutions, corporate sectors, and Islamic economy at large. This is due to the urgent need of the Islamic economy to the Islamic hedging to solve the problem of price volatility in the market. Nevertheless, the adaptation of wa'dan principle in the Islamic foreign exchange forward contract would also lead to mafsadah as it would threaten the economy if the contract is misused for merely speculation purposes.

Keywords: wa'd, wa'dan, Islamic FX forward

#### 1. Introduction

Islam has outlined clear rules and regulations on every financial transactions carried out by market players. This means that they are forbidden to do any activity that is against shariah guidelines as shariah compliance is an integral feature in the Islamic finance. Since the basic shariah principle of muamalah says that all forms of muamalah are permissible, as long as there is no dalil that prohibits, thus we can develop any new contract as long as it does not against shariah.

As Islamic banks have to cater the clients' need, they must be innovative in structuring any products offered. Therefore, Islamic banks are allowed to structure Islamic derivative products that can provide the same effect as conventional derivatives, although the possibility of restructuring involves techniques such as *makharij*. The adaptation of *wa'dan* principle in Islamic forward foreign exchange contract is one of the means for Islamic banks to evolve into a sophisticated global business. Since the exploration of a new product is a form of *ijtihad*, then principle of *wa'd* which is sometimes seen as *makhraj* technique is allowed in Islam because its intended use is to achieve *maqasid al-shari'ah*. It is undeniable that the contract *musamma* (known and recognized contract) is the ideal solution to the situation and needs in the past and the present. However, the jurist also has to introduce some new contracts due to changes in time and need of people, as long as they do not conflict with shariah.

In conventional practice, the issue of riba (usury) arises in the foreign exchange forward contract when the parties involved will fix a rate on the day contract is concluded, but the exchange of currency will happen in the future. This activity clearly involve riba as it does not fulfill the rule of *sarf* contract, which is the exchange of two different currencies must be done on a spot basis. Based on the rule of *sarf*, hence *wa'd* principle is widely used in Islamic forward foreign exchange contract in Islamic banking current practice. This contract is structured to achieve the function of conventional foreign exchange contract without contravene the fundamental shariah

<sup>&</sup>lt;sup>1</sup> Department of Syariah, Fakulty of Islamic Studies, The National University of Malaysia, Malaysia

prohibitions, which is the prohibition of riba. The contract is constructed mainly to fulfil the need of hedging and risk management.

Islam recognizes the concept of hedging with respect to managing risk as it could protect wealth of people. Hedging is basically permissible and recommend in Islam since it reduce risk that might harm business and economy (Alisa & 'Afifi, 2014). It is also consistent with *maqasid al-shari'ah* which emphasizes on the preservation of wealth (*hifz al-mal*). The issue arises is, to what extent the Islamic foreign exchange forward which is structured for hedging can achieve *maqasid al-shariah*? Is this contract will promote *maslahah* or *mafsadah* to the economy?

Based on that issue, this study took the form of a qualitative study using the approach of content analysis method as a research design. Documents analysed in this study are al-Quran and some related maxims of jurisprudence. This study uses methods of textual analysis and analysing theory of *maslahah* for data analysis method. This study will be entirely literature-based as it adopts the methodology of theoretical analysis.

Therefore, this paper wills mainly discuss on the principle of wa'dan which is adopted in forward foreign exchange contract. As wa'dan is taken from the principle of wa'd (unilateral promise), then this paper will begin with a brief discussion on wa'd, followed by a theory of maslahah and mafsadah. Then, the contract will be analysed based on their achievement of magasid al-shari'ah and also a clash between maslahah and mafsadah.

#### 2. Concept of Wa'd

Wa'd means a promise that connotes an expression of willingness of a person to another group of people on a particular subject matter. According to al-Fayyumi (2008), wa'd means notification of goods or bad news, but the term wa'd is commonly used to notice good news. According to Nurdianawati (2008), wa'd in practical sense has no specific definition of its own. However, it can be explained as a commitment made by one person to another to undertake a certain action beneficial to the other party. In a commercial transaction, a promise carries dual meaning; an offer from the offered is known as promise, and acceptance from the offered is also recognizing as promise. Hence, the promise made is binding on the offers themselves and will become enforceable once the offered comes forward and fulfills the conditions and requirements made for the acceptance of such offers (Billah, 2003).

Many of the scholars believe that fulfilling promise is a noble quality and its breaching is reproachable in Islam. The status of promise in Islam is crucial because it is one of the characteristics of a true believer and a person who breaks his promise is considered as munafiq, "Four qualities denote the hypocrite: when he talks he lies; his promise he does not keep; his covenant he betrays; and when he argues he exceeds the limit" (Bukhari, Sahih Bukhari, kitab al-Iman). Moreover, Allah S.W.T has also repeated the word wa'd more than 150 times in al-Qur'an to show it significance (Daghi, 2002).

The Shariah Advisory Council of Bank Negara Malaysia had decided that Islamic financial institutions must execute their forward exchange transactions based on unilateral binding promise (*wa'd mulzim*) that binds the promisor in the contract, who is liable to pay damages if he breaches his promise. However, this transaction is only allowed for the purpose of hedging (Bank Negara Malaysia, 2010). The Shariah Standard AAOIFI also states that a *wa'd mulzim* that binds one party is allowed in foreign exchange transactions. However, *muwa'adah* that binds both parties is not allowed, even for the purpose of hedging (AAOIFI, 2010).

In light of the above, the concept of wa dan may be directly understood from the construction of wa<sup>c</sup>d, where it may be concluded that the term wa dan refers to two promises made by the parties involved in a particular deal or business. These two promises are given unilaterally by one party to another and vice versa, whereby they are unrelated to each other and their respective fulfillment depends on two independent conditions (Aznan, 2008; Shamsiah & Rusnah, 2010). The concept of wa dan may be illustrated as follows:

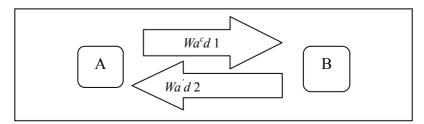


Figure 1. The Wa dan process

Source: Aznan (2008)

According to Shamsiah & Rusnah (2010), the main conditions or requirements to qualify two promises made by two parties as a *wa'dan* are: (1) the two promises are unrelated to each other; and (2) the effect of both promises is different and independent of each other.

#### 3. Theory of Maslahah

Shariah is built on universal human *maslahah* as Islam was revealed to preserve the benefit of the whole human and society. Islam give blessings to all human beings dan provide comprehensive solutions to any problems. The life and property of all people should be protected in Islam. Hence, all rules dan regulations set by God is meant to promote the benefit (*maslahah*) and give protection to entire human beings. As Islam is a religion of ease, thus making things easy and removing difficulties are among the foremost objectives of Islamic Law.

Allah Almighty says:

Meaning:

He has not placed upon you in the religion any difficulty (al-Qur'an, al-Haj 22:78)

Meaning:

And Allah wants to lighten for you [your difficulties] (al-Qur'an, al-Nisa' 4: 28).

These two *ayah* proves that Allah in His Law does not seek to impose hardship and misery upon the people. Thus, whatever activities that would achieve the pleasure and convenience to the people, then it are allowed by Islam as long as it does not conflict with the *maqasid al-shari'ah*. Ibn Qayyim al-Jauziah views that shariah is essentially a rule of law that bring the benefit to the mankind in his life or the next life. The whole of the shariah is aims at bringing justice, love and wisdom and benefit to all (al-Zuhayli, 1986).

According to Kamali (2003), *maslahah* means 'benefit' or 'interest'. It is essentially an expression for the acquisition of benefit or the repulsion of harm. The acquisition of benefits and the repulsion of harm represent human goals, thus *maslahah* is achived when these goals are achieved through human welfare. Al-Raysuni (2006) views that *maslahah* is the preservation of the *maqasid al-Shari'ah*. That is the reason *maslahah* sometimes connotes the same meaning as *maqasid*, and scholars have used these two terms almost interchangeably.

Al-Imam al-Ghazali describes that the *maslahah* is an approach to celebrate the welfare of people and eliminate harm. It has a close relationship with *maqasid al-shariah* that covers five main elements to be preserved, which are religion, life, intellect, lineage and property. Anything that safeguards these five elements, then it is called *maslahah*. And whatever goes against their protection is *mafsadah* (al-Ghazali, 1997). Muhammad Rawwas Qala'hji (2000) has a same view with al-Ghazali and states that *maslahah* is an approach to promote the benefits and reject the evil.

Maslahah can be classified into three form, ie maslahah mu'tabarah, maslahah mulghah and maslahah mursalah (al-'Ummar, 2010). Despite the application of wa'd principle is not explicitly stated in the text or the consensus of scholars, but the application of this principle is in the category maslahah mursalah. According to al-Zuhayli (1998), maslahah mursalah is an attribute or statement in line with the action and purpose of Islamic law, but found no specific evidence from the text for its approval or disapproval. However, its implementation is included in the maqasid al-shari'ah as it would give maslahah to people and avoids harm. According to Mahmood Zuhdi (2012), maslahah mursalah should not be ignored completely. Though maslahah mursalah is not mentioned explicitly in the al-Quran, but if it does not contradict with definitive text, then the ruling which serves the genuine interest of people and harmony with the shariah should be enacted.

#### 4. The Clash between Maslahah and Mafsadah in the Application of Islamic Foreign Exchange Contract

Some jurists are still debating about the permissibility of wa'dan principle to be adopted in structuring Islamic forward foreign exchange contract. Some of them argue that the adaptation of wa'dan principle will tend to permits structures that is mimicking conventional forex contract. While some jurists opine that the contract will bring maslahah since Islamic financial products will become innovative and competitive in providing a commercial value as well as comply with shariah requirements.

Due to no injunction and clear evidence that states the impermissibility of wa'dan and no clear evidence that allows it, thus it shows that it has a prospect to be explored in more depth. This is based on a famous fiqh maxim stated that: the norm in transaction is that of permissibility. The maxim shows that, in case the shariah is silent and where there is no legal text that either permits or prohibits it, the transaction is lawful. The application of

wa'dan principle could reach maqasid al-shari'ah if it is applied in the right way without any manipulation. Although the use of wa'dan principle would bring some maslahah, we have to assured that it is the real maslahah and no implicit masfadah behind it. Therefore, this section will explore further about the issue of the clash between maslahah and mafsadah in the application of Islamic foreign exchange contract. Which one is more prevail, maslahah or mafsadah?

#### a) Realization of Maslahah

Wa'd in Islamic finance is a principle that is flexible enough to create innovative products for hedging purposes. However, the issue that arises in the execution of binding wa'd is the failure to protect corporate clients when declining in exchange rate as compared to the rate agreed upon in the wa'd. The application of wa'd is Islamic foreign exchange forward does not only make the contract become shariah compliance, but the principle of wa'd is deemed to be more flexible and easy to apply. This means that, in addition to its shariah compliance, the application of the wa'd principle provides ease, does not involve complicated transactions and requires no additional cost compared to other shariah principles. Shariah's acceptance of the concept of wa'd is also not in its entirety as it only binds the one party. To overcome this weakness, the use of wa'dan principle has been proposed (Alisa et al., 2012).

According to Shamsiah (2011), two unilateral promise (wa'dan) is the best principle to be adopted as wa'dan is tend to provide justice ('adalah) compared to the unilateral wa'd in the current practice. Because both parties involved are bound by wa'd made, both of them will be protected and secured when there is no opportunity for the counter parties to default. Realisation of justice means maqasid al-shari'ah would also be achieved when all parties involved attain maslahah.

The nature of wa'dan which is very flexible makes it easy for Islamic banking to replicate conventional financial products such as derivatives in a shariah compliant manner (Alisa et al., 2011). To avoid harm (darar) of Islamic investors choosing the conventional forward FX products rather than Islamic products, hence a product which is similar to conventional forward FX contract is a requisite in Islamic banking and finance. Furthermore, the application of wa'dan principle is in fact a matter of ijtihadiyyah because it is new in the field of Islamic financial transaction. Although Islamic law is already complete and comprehensive, but some of its law is fixed and permanent, whereas some are flexible and changeable depends on the appropriate time and place. Therefore, an ijtihad is an important mechanism to realize the nature of flexibility and innovation behind the comprehensiveness nature of shariah (Rabiah, 2012). Siddiqi (2010) also urges that, the need of the hour is to encourage ijtihad based on shariah objectives to face the future challenges. This means that the principle of wa'dan has a wide potential to further develop hedging in Islamic financial institutions globally, particularly in Malaysia.

It is known that all market participants such as international trade as well as Islamic financial institutions are constantly exposed to foreign currency risk, particularly if the payment for the sale and purchase or lease is done by using different currencies. The currency exchange in the future can either give a profit or loss to one party or both parties, which are either buyer or seller or both. To avoid banking institution from the negative impact of price fluctuations and uncertainty, then Islamic FX forward contracts is needed for export and import industry to fulfil their hedging purposes. Without the applicability of this contract, then market participants will be exposed to losses that are *darar* for them (Alisa, 2012).

Islamic FX forward contracts based on wa'dan provide many benefits to the market players who are exposed to various types of risks. The contract is beneficial in terms of wealth protection under maqasid al-shari'ah as well as meeting the social needs of people. Preservation of wealth (hifz al-mal) is included in daruriyyat al-khamsah shows the significance of economic governance in Islam. Islamic banking institutions and corporations, investors and all market players would bear huge losses that will eventually dampen economic system as a whole if such hedging contracts of Islamic FX forward are not offered in the Islamic financial market.

Due to concerning of shariah to the easiness of the people, therefore any product development such as Islamic derivatives contract must be for the needs and to get rid of trouble and inconvenience to the people. So, the customer will benefit from a certainty at a price to be paid or cash flows to be received by him, thus giving flexibility in managing foreign currency position. The effectiveness of Islamic FX forward might bring more *maslahah* as long as in line with shariah.

The need to adopt the principle of wa'dan in Islamic FX forward contracts is considered as the common needs of the people (al-hajah al-'ammah) if it cannot be categorized in al-darurah al-shar'iyyah (extreme necessity, in which the Muslim cannot manage without). This is because the contract is essential for the purpose of protecting property which is one of essential needs in the maqasid al-shari'ah.

Due to the usage of wa'dan is included in maslahah hajiyyah, then it is required as a convenience to the people and at the same time it is able to avoid trouble and difficulty. However, the absence of maslahah will not affect someone's life but will only cause some inconvenience (al-Shatibi, 1991). This is supported by the following maxims:

الحاجة تنزل منزلة الضرورة عامة كانت أو خاصة

Meaning:

Need is ranked as necessity, be it public or private (al-Suyuti, 1990).

الحاجة العامة تنزل منزلة الضرورة

Meaning:

Need is ranked as necessity (al-Suyuti, 1990).

The above fiqh maxims do not reflect that all *maslahah* practice will reach to the extreme necessity levels. This also does not mean that the concept of *darurah* can abandon *maslahah mu'tabarah* and *mafsadah mu'tabarah* or any Quranic texts. Rather, it means *maslahah mursalah* and *darurah* is part of *maslahah shar'iyyah* in general. For any *maslahah mursalah* is part of *maslahah shar'iyyah*, then *darurah* is also a part of *maslahah shar'iyyah* general (Ridzwan, 2004). Thus, Islamic FX forward contract is permitted based on the people's needs. If the need become general, then it will be considered as indispensability.

The need to adopt wa'dan principle in Islamic FX forward contracts for hedging purposes can be grouped in the category of maslahah mursalah. This is because the purpose of using wa'dan principle is merely for hedging purpose which is in line with maqasid al shariah. When the use of wa'dan seen as capable of giving the benefit of the people, then we should stick with it. Furthermore, in muamalat, people know better about their needs and maslahah (al-Tufi, 1964).

As was mentioned earlier, Islamic hedging products is growing at slower rate compared to conventional products. Insufficient Islamic hedging contracts may hinder the development of Islamic banking institutions. As a result, it can lead to infertile creativity of Islamic banking and finance practitioners whereas they should be more creative in order to compete with conventional counterparts. According to Engku Rabiah Adawiah (2008), Islamic hedging is among the most lagging behind compared to the products of other Islamic banking. As a sequence, it is important to increase innovation in Islamic hedging products, so as to gain investors' confidence in Islamic financial transaction.

Maslahah can also be achieved when the application of Islamic foreign currency forward based on wa'dan would ensure that Islamic banks continue to grow competitively with conventional banks. To promote Islamic economics as well as compete with the conventional economy, investors' confidence to participate in international trade is indispensable. To boost investor confidence in the context of risk management, not only cutting-edge products that are needed, but appropriate instruments in which does not conflict with shariah is a must. This is because the international trade transaction cannot be separated with foreign exchange activities. While foreign exchange transactions in reality are constantly exposed to various types of risk.

In addition, flexibility as well as dynamism of sharia has facilitated the development of new products and innovations in Islamic finance sector. The system is expected to compete with conventional financial system and recorded remarkable growth every year. From the *maslahah* perspective, *wa'dan* is more suitable and applicable to fulfil the current need of the market as it is an essential requirement for the development in Islamic financial market.

According to Ashraf Wajdi (2010), Islamic hedging products for the time being in fact still at its infancy stage. So far, Islamic hedging products introduced in Malaysia only focused on the management of foreign currency risk and interest rate risk. In fact, Ashraf Wajdi (2010) views that the nature of the market is too volatile, especially in the context of market interest rates and the currency. Therefore, the Islamic hedging products are required for this purpose. This is also suggests that the practice of currency exchange can be considered as one of the most important needs (*al-daruriyyat*). Therefore, the transaction is allowed by Islam to its people in their dealings.

Islamic FX forward contracts are also beneficial in terms of protecting the welfare of the society and minimizing the probability of business disruption. In the absence of innovation in Islamic FX forward contract, then the business or investments made by Muslim traders are vulnerable to loss due to risk management instruments is limited. Businesses or investments in Islamic finance sector will be less competitive when the diversity of the hedging instrument is limited to only a few products (Obiyathulla, 2004). Furthermore, Islamic financial system

was built within the framework of the conventional financial system that was already well established and widely accepted in the community. Thus, the application of this *wa'dan* potentially increases competition between conventional and Islamic, and hence increases the growth of the Islamic financial system itself. Once the size of the assets of Islamic financial institutions increased gradually, so hopefully they can reduce dependency on the usage of *wa'dan* and find an alternative that is based on sharia (Islamic shariah based), rather than Sharia-compliant (shariah compliant).

Other *maslahah* that can be achieved in the application of *wa'dan* in developing hedging product is that, Islamic financial institutions would get a great opportunity to continue to expand the size of their business. At present, the total assets held by Islamic financial institutions only one per cent of the conventional (Akram, 2010). The small asset size has made the development of Islamic finance in a very challenging position. This is because the conventional dominate global financial markets where Islamic finance lags behind. Thus, although there is no clear text discusses about the potential application of *wa'dan* in Islamic FX forward contracts for hedging purposes, but custom practice (*'urf tijari*) can take place as permissible evidence.

International trade at present far more impressive and growing so fast. Thus, due to the current needs and changing times, then a robust innovation is required. This means, business custorm ('urf tijari) needs some reform of the contract such as Islamic FX forward contracts based on wa'dan to meet the hedging needs. In a figh maxim also mentioned:

#### Meaning:

Change of judgements shall not be denied by change of times (al-Zarqa', 1968)

Although Islamic law jurisprudence has been set, but some ruling may change if it is beneficial to mankind. In fact, the original purpose of the designation of Islamic law is to promote benefit of all people. The *maslahah* of mankind will always change and grow along with the progress of time. Thus, the above fiqh maxim shows that we have the freedom to innovate in structuring Islamic financial products in the event that it has become 'urf and give maslahah to mankind.

In essence, emphasize on the importance of global Islamic economy is *maslahah* 'ammah and will not affect the welfare of the individual which is *maslahah khassah*. This is because the individual *maslahah* is included in *maslahah* 'ammah through the mergers of mutual interest of individual within the society. Hence, if *maslahah* 'ammah is not the main concern, of course, the harm will befall on the individual, and the individual *maslahah* will be deprived. When *maslahah* 'ammah is the priority, then *maslahah khassah* would indirectly be protected as *maslahah khassah* included in *maslahah* 'ammah (al-Buti, 1982).

Islamic FX forward contracts based on wa'dan has made foreign exchange contracts shariah compliant because the issue of interest is no longer occur as per the existence of riba in the conventional forward FX contracts. By entering into Islamic FX forward contract, no interest occurs due to al-sarf contract has not happened yet, but the promise made in advance to do a foreign exchange contract in the future. Al-sarf contract only occur in the future whereby at that time the currency will be exchange on the spot basis. Thus, the issue of interest does not arise as promise made yet to form a sale contract.

The application of wa'dan Islamic FX forward contracts also give a maslahah because it gives a guarantee to customers when they make an appointment with the bank to sell or buy a specific amount of foreign currency fixed rate. Rates are determined based on the mutual agreed price even though the price of currency changes after that. If wa'dan is not allowed, then it will cause trouble (mashaqqah) to people. Whereas it can be considered as a lightness and grace of God that allows some rulings built based on maslahah. Thus, hedging is needed to protect them from harm thereby to safeguard the interests and rights of customers.

FX forward contracts based Islamic wa'dan is needed as it seeks to meet hajiyyah maslahah of people. The hajiyyah is more prominent when it involves a larger organization such as a large investment bank or multinational companies seeking to hedge. The principle of wa'dan also required to make a hedging product that is comparable to conventional. Makes the product more equivalent to conventional products is a strong reason to allow the economy to grow in line with economic conventional. The development of Islamic economics is an important maslahah in the country. Without the use of Islamic FX forward contracts for hedging, then corporates, Islamic financial institutions and Islamic economy will be in a position of greater harm. Thus, the usage of wa'dan in Islamic FX forward is in accordance with fiqh maxim which states that: A greater injury (harm) may be avoided by a lesser injury. Hedging product based on wa'dan is also needed based on shariah wisdom (hikmah tashri'iyyah), which gives maslahah to traders, investors and also to the economic system as a whole because it

acts as a tool of risk management. The urgent need of this contract is required to ensure the survival of the Islamic banking institutions for the time being under the framework of the conventional financial system.

In line with the on-going evolution of modern society today, there are some new and innovative contracts are required in Islamic finance. Obiyathulla (1999) believe that, apart from looking at the point view of shariah, the advantages of derivatives should also be viewed in terms of social welfare. Due to the contemporary Muslim scholars do not agree with the use of derivatives, two negative effects will occur, namely: (1) the business or investments made by Muslims to be exposed to losses as risk management instruments are limited, (2) even business will become less competitive. Although the application of wa'dan in Islamic FX forward contracts is included in the category of makharij, but it is a form permissible hilah. This is because there are only few hedging contracts offered by Islamic financial institutions.

#### b) Mafsadah

Despite the benefits (as discussed in part a), permitting for the application of wa'dan in Islamic FX forward contract open a back door of speculation which the shariah did not intend to allow. Although Islamic FX forward contracts are essentially innovated for hedging purposes, nonetheless this instrument is also well-known for speculation purposes. Its mean that, the authorization to use the contract for hedging activities is also opens to speculators to speculate on price movements. Skilful speculators can gain huge profits by manipulating against the price volatility in the market, instead of hedging.

Speculation is a great harm (*mafsadah*) because it can result in market participants' loss. It is also led to injustice and instability in the financial world. While Islam has stipulated that currency cannot be traded since money is not a commodity. Furthermore, most of the world financial crisis that occurred in the past has a very close relationship with speculation. This large-scale speculative activity can result in economic instability and economic collapse (Obaidullah, 2005). This scenario demonstrates that while Islamic FX forward contract has a big role in hedging activities, but the same contract can also be easily manipulated by speculators.

Although Islamic FX forward contracts based on *wa'dan* allow market players not to involve in usury transaction, but, in fact, Islamic financial institution has done the same thing with conventional financial institutions indirectly because the resulting effect is the same. It is merely a *hilah* to circumvent riba which is prohibited in Islam. Moreover, currency trading is easily manipulated for gaining huge profit, rather than to hedge. Traders who open a position (either buy or sell) do not know that when the contract was made, how much the price of the currency to be received during the close position.

For example, when an open a position to buy (long) EUR/USD at 1.4573, A does not know the exact amount until he take a close position to resell the EUR/USD to the broker. The difference between the open and close price will be credited to account A if there is a rise in the currency EUR/USD. However, if the currency rate decreases, then the price difference is debited from account A and credited to the broker's account (Marjan et al., 2011). This activity can result in only one party bearing loss while the other party earning profits. Based on these characteristics, the contract is seen to have speculating features.

#### 5. Discussion and Finding

Based on the above arguments, there is, in fact a clash between *maslahah* and *mafsadah* in the implementation of Islamic FX forward contract based on *wa'dan*. Sometimes people assume that the contract will bring *maslahah* and achieve *maqasid al-shari'ah*, instead there may be *mafsadah* otherwise. If the usage of *wa'dan* in Islamic FX forward contract is not permitted, not only *maslahah* cannot be achieved, rather it will bring into *mafsadah*. This is due to limited number of hedging products for Islamic investors and this factor encourages them to choose conventional products, which is not Shariah-compliant. Therefore, careful consideration should be made between obtaining *maslahah* and rejecting *mafasid*.

It is recognized that *maslahah* Muslims in economic activities is very important, but greater harm should be removed. A real achievement of *maslahah* is not solely taking into account when the *maslahah* can be achieved, rather it is largely depends on *mafsadah* aspects that could be rejected (Ridzwan, 2004). 'Abd Ibn al-Salam (t.th.) states that the purpose (*maqsad*) is more important than means (*wasilah*). This means, the purpose of hedging should be given priority over the means. Nevertheless, it does not mean that the means can be ignored totally since the means is an important element that can lead to the achievement of *maqsad*.

As a result of the high chances of *mafsadah* in the use of Islamic FX forward, then the application of Islamic FX forward contract based on *wa'dan* should be allowed only on the basis of necessity (*hajah*) only. The application of this contract is limited to hedging activities only and this contract does not open for any other activities such as speculation. The currency cannot be traded in any way since money is not commodity trading. Thus, there

should be some restrictions on the application of Islamic FX forward based on *wa'dan*. If the currency is traded, then the *mafsadah* will be worse off and it will greater than *maslahah* as the activity can collapse the economy.

The following *figh* maxim shows that rejecting unlawful activities are more vital in Islam.

Meaning:

#### The lesser of two harm is to be committed (Hazm, 1996).

When permissible activities such as wa'dan in Islamic FX forward are applied, then it is deemed to have celebrated the betterment and maslahah of mankind. However, when it is used to eliminate maslahah, then it will invalidate the original ruling outlined by shariah. The process of identifying the compliancy of financial instrument in the Islamic law requires the ability of scholars to understand the instrument in terms of concept and execution. This is consistent with the maxim below:

Meaning:

The decided ruling is depending on the understanding (al-Mardawi t.th.).

According 'Abd Ibn al-Salam (1998), the degree of *maslahah* and *mafsadah* in the eyes of Allah SWT is measured by the extent to which some act can produce *maslahah* or avoid *mafsadah*. When a contradiction occurs between *maslahah* and mafsadah, then the most dominant between them will be given priority. Therefore, in this context, although there is *mafsadah* when Islamic FX forward contracts is misused for speculation, but the use of this contract can be put into some restrictions. If this contract is restricted in term of its practice is, then speculation can be minimized. This means that, when hedging activities are more dominant than speculation, then *maslahah* from the use of these contracts for hedging purposes is greater than the possibility of the occurrence of *mafsadah*. This assertion is supported by al-Qarafi (2001) which states that, in some activities, if the *maslahah* is larger and dominant than *mafsadah*, then the activity can be taken into account.

The determination of whether Islamic FX forward contracts based on *wa'dan* is needed or not is depending on the benefits achieved from the implementation. According to Ibn al-Hajib (1985), rejecting mafsadah is getting priority over getting maslahah just as a matter of precaution, so that the decisions made is in compliance with Islamic law and human reasoning. However, Ibn Taymiyyah (1994) views that; a contract may not be illegal as long as there is no Islamic law says so.

al-Qaradawi (2001) states that the overall shariah ruling is built based on the method of facilitates (*taysir*) and not too riqid. The ruling should not be based on grief (*'usr*) whereby there is no way out to the need of mukalaf. This is amplified by the method of jurisprudence follows:

Meaning:

Choosing ease dan flexible is prior to rigid dan hardship (al-Nadawi, 1999).

Based on that, facilitates (*taysir*) approach is needed and it is used widely by the mujtahid jurists. This means that the mujtahid is not to be bound by strict laws because it is not a requirement by the fundamental law. This approach is also needed to meet the needs and facilitate the structuring aspect of hedging products in order to meet the needs of the market as a whole.

Finding a right balance between *mafsadah* and *maslahah* is a big challenge that should be addressed wisely. It is vital so that the decision of law does not lead to any constriction to the Muslims and no harm as a result of the relaxation of the law. *Wa'dan* parameter or standard should be followed so that its intended use does not contradict shariah guidelines. To get a clearer picture of whether *maslahah* or *mafsadah* is more prevailing in the application of Islamic FX forward based on *wa'dan*, the figure bellows summarize this discussion. Although the contract brings *maslahah* to all parties involved, the use of *wa'dan* without restriction and proper guidelines could lead to harm to the economy. Thus, the concept of compatibility in al-Quran with the concept *maslahah* and *mafsadah* must be continuously observed. So that the claimed *maslahah* is the real benefit while the rejected *mafsadah* is the real harm as specified in the *magasid al-shari'ah* (Ahmad, 2004).

The following figure potrait that the application of the *wa'dan* principle gives *maslahah* to all parties, including investors, financial institutions, corporations and the economy. Nevertheless, the application of the *wa'dan* in Islamic FX forward also contains *mafsadah* if its usage is misused by speculators to manipulate the currency movement in a volatile market.

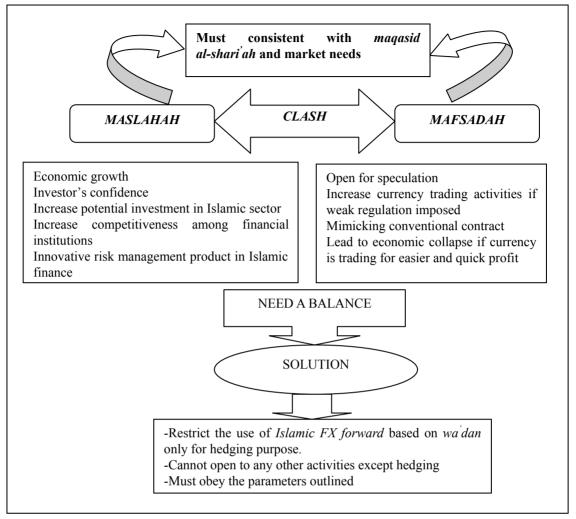


Figure 2. Analysing the application of wa'dan in Islamic FX forward contract

#### 6. Conclusion

This paper concludes that Islamic FX forward contracts based on wa'dan capable of achieving maqasid al-shari'ah because it gives benefit to all parties. With the adoption of wa'dan principle, the ability of Islamic financial institutions in the diversification of Islamic hedging product can be improved. Based on the above discussion, it is clear that the principle of wa'dan is significant as it can be applied in structuring sophisticated Islamic hedging products and gives maslahah to the people and economy at large.

Wa'dan is seen to have a tremendous potential to develop a competitive and innovative Islamic hedging products. It has also become a suitable alternative for Islamic financial products to compete with conventional financial products due to its flexible nature. While its implementation may present some difficulty in terms of documentation or simply increase quantity of documents available, but the use of wa'dan has a great potential to be applied in Islamic hedging products to enhance the competitiveness of Islamic banking products are essentially different from conventional banking products. If the application and process of Islamic hedging are transparent, thus the number of transactions in the market will increase, consequently it leads to the increase competition in the market. Wa'dan principle which is easily structured in Islamic hedging contract can also increase the innovation of hedging product; subsequently will boost the ability of Islamic financial institutions in the area of risk management. Therefore there is need for Islamic financial products to be innovative and growing from day to day. Hence, a collective ijtihad interpretation on the basic principles underlying Islamic hedging transactions is necessary to facilitate not only their compliance with the shariah, but also helps Islamic financial institutions to use the new products in the light of Islamic principles.

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