

# A Conceptual Model of the Relationship between Organizational Structure, Organizational Learning, and Organizational Innovativeness in Malaysian Higher Education Institution

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**Abstract:** In this era of globalization, creativity and innovation have become integral in the business world and without these elements, a business might not be able to maintain its place in the market. In this regard, organizations should acquire new knowledge and skills, as well as come out with brilliant can help them to maintain and improve their position in today's highly competitive market. In this study, a concentrated evaluation of past studies on the relationship between organizational structure, organizational learning and organizational innovativeness has been conducted to find and fill the logical research gap to help companies deal with external opportunities and threats. In light of the dynamic-abilities hypothesis, this review will fill the gap between the constructs of competitive advantage and propose a conceptual framework which can contribute towards the improvement of the existing literature.

**Keywords:** Organizational Innovativeness, Organizational Learning, Organizational Structure

## Introduction

Globalization affects us in many ways. Perhaps its most apparent impact is enabling a large volume of people, ideas, products, ideologies and diseases to be disseminated rapidly and easily across borders. Globalization can decidedly affect individuals, groups and market. Education is closely related to globalization as it is commonly known that education can enhance the lives and jobs of people across the globe and help people to become more globalized citizen of the world.

It can be argued that globalization and the rapid development of education comes hand in hand. Higher education is a fundamental component in our profitable economy, and interest for it is expanding worldwide. Internationalization enable educators and educational institution to cross boundaries and to work with individuals from various organizations. Consequently, the internationalization, diversification and massification of higher education permit us to participate in globalization and in the process, understand the forces at work behind it. The ultimate goal of this processes is to provide solutions to the problems it creates and identify ways to tap into opportunities it brought upon. In this regard, these processes permit us to make unexpected associations between our own environment and the global context for shared advantages. This has become more imperative in the highly robust political climate of today as we need to provide students with efficient skills to compete in the global context.

Meanwhile, as education institutions strive to commit to the process of internationalization, diversification and massification to clarify their vision and goals, which are linked to the core mission of the institution. In Malaysia, higher education institutions (HEIs) are facing many issues including the lack of graduates' employability and the lack of link with the industry. To curb these issues, universities are encouraged to improve their courses and provide programs that are more relevant to the industry. There is also a call to increase students' enrolment and fulfilling the demand for affordable and accessible higher education to cater to broader segments of the society which has driven the influx of private and public HEIs. Furthermore, HEIs are encouraged to offer courses in entrepreneurship and innovation to provide students with the necessary skills. At the same time, due to the government's call for internationalization, Malaysian HEIs have become both importers and providers of education as institutions are offering open and distance learning opportunities to local and foreign students.

Based on the above discussion this paper tries to answer these questions, first, how do Malaysian Higher Education Institutions (HEIs) and the Malaysian government develop innovativeness among tertiary students? and second, how can we confirm that the HEIs could improve and maintain their position as major players of higher education in the world through talent development?

### **Higher Education Institution and Innovation**

The first phase of the Malaysian Education Development Plan 2015-2025 (higher education) focuses on establishing an innovation ecosystem in HEIs across the country. This reflects the government's ambitious goal to create to make innovation as the driving force of economic growth. To achieve this goal, the EDP of higher education has called for the optimization of new technologies and improvement of innovation capabilities and the increase private sector's spending on R &D. It is hoped that such initiatives will help create a learning environment that is supportive of the development of better technology and accelerate the commercialization of technology. This call reinforces the demand for universities to produce graduates who have the skills to innovate and promote the spirit of innovation in all sectors of education. In order for these calls to be realized, the effectiveness and efficiency of the national innovation system needs to be improved. This could be done through supporting technology acquisition and deployment, supporting the development of value-added products, taking full advantage of the knowledge and technology in the global market, connecting effectively with the global value chain, applying S & T efforts in a broader

base of competitiveness, and entrepreneurial relationships, as well as involving business entrepreneurs in the commercialization of technology.

This research is in line with the recommendations of the Malaysian Education Blueprint (2015-2025) which emphasizes on competitiveness, creativity and innovation. It aims to examine the current level of organizational structure, organizational learning, and organizational innovativeness among HEI administrators, and whether organizational learning is an important intermediary between factors affecting organizational innovativeness.

Recent studies have shown that scholars are trying to find an effective way which leads to better performance through research on organizational structure, learning, and innovativeness. This is because, as stated in the literature, organizational structure, and organizational learning can be prominent factors that contribute to organizational innovativeness. In this light, organizational structure could be one of the factors that contribute to the organization innovation, as it is one of the control mechanisms intended to encourage employees to act in a certain way to achieve their mission and goals (Agbim, 2013). As companies use organizational structure as one of the mechanisms to implement employee behaviors to ensure they can effectively and efficiently meet the specified goals, it is also important to determine the company's success or failure (Al Qatawneh, 2014), and therefore, a strong organizational structure is important in helping organizations to create innovation.

According to Kiziloglu (2015), the concept of organizational learning and innovation has been widely discussed in the business literature since the 1990s. This shows that organizational learning and organizational innovativeness are related to each other as if the members of an organization are not capable of learning, they will not be able to compete in a competitive environment and will fail to create innovation.

Structural and organizational learning are considered as the two main factors that have strong impacts on organizational processes and capabilities (Hsiao and Chang, 2011, Yan Yu, 2013). Structural and organizational learning are considered as the main backgrounds for innovation for two reasons. First, business organizations often try to solve their performance problems by focusing on strategies that can potentially help them to gain a leading market position or increase the value of the industry. However, this strategic orientation undervalues the importance of intra-organizational factors, such as the ability to process and firm performance. Meanwhile, in terms of organizational change and development, cultural change and organizational restructuring are two major aspects frequently considered. Therefore, a deeper understanding of the relationship between organizational learning, structure, and innovativeness plays a pivotal role in the efforts to enhance an organization's innovative capability and in turn, improves organizational performance.

While scholars have largely agreed on importance of these issues, there are still limited studies that examined the relationship between organizational structure, learning, and innovation, particularly from an empirical perspective. While there are some studies which have shown that organizational structure is linked with innovation (AGR Al-Mamoori, 2015, CM Takemura, 2009), only a few have focused on how this relationship affects the structure of learning (Chen and Huang (2007), Martinez-León and Martinez-Garcia (2011) or innovation (Schilling 2010, Ambos & Schlegelmilch, 2007, Hao et.al, 2012). Therefore, the aim of this paper is to fill this gap through several procedures; first, by reviewing the literature on the individual relationship. This is followed by empirically examining the relationships between

organizational learning, organizational structure and organizational innovativeness among administrators of HEI. Lastly, the implications of the study and future research lines will be discussed.

### **The Link between Organizational Structure (OS) and Organizational Learning (OL)**

Organizational structure has an impact on the efficiency of distribution and coordination of information and knowledge in an organization. According to Chen and Huang (2007), organizational structure affects exchange of interpersonal, organizational resources, means of communication and interaction between members of the organization. In this regard, since a company's learning ability depends on the processing power and interpret information, the structure has an impact on the learning process. Nicolini and Mezner (1995) suggested that organizational structure is an important factor in the learning process as members of the organization interprets and integrate the knowledge, which is the main entity within the framework of the organization. Similarly, Martinez-Leon and Martinez-Garcia (2011) suggested that organizational structure influences learning and affect am company's ability to adapt, to innovate and to improve its ability to generate added value to the environment.

In the meantime, structure is deemed as a dynamic factor because on one hand, it can change over time, especially in a new organization. At the same time, it can often be modified so that employees can have access to and acquire new knowledge and range that will help them to overcome a variety of problems, volatility and various conditions (Lloria, 2007). Thus, structure is not a uniform among organizations, as different parts of the organization face different environmental stresses and may need to respond by developing different practices, policies, and structures, R&D vs marketing. Knowledge driven firms often leave the formal structure to achieve alignment through social rewards and internal normative system, rather than hierarchical control. It is argued that while firm dimension is related to organizational factors, they become more bureaucratic as a company grows (Starbuck, 1992).

Structures and processes are among the topics discussed most in works of researchers, specifically "productive process" to turn knowledge into a knowledge-based products and services. Furthermore, the dilemma between autonomy and control is often mentioned in the literature, and there are arguments on protecting the dilemma resolution based on cultural and normative process, instead of using a hierarchical structure (Rylander and Peppard, 2004). In this light, social rewards and the internal normative system is a good way to transform a learning organization into a non-hierarchical, formal and structured organization. Meanwhile, the role, importance, and power of different organization structures generate paradoxes and tensions which jeopardize the intended dynamic impact on the learning process. The dynamics associated with the social identity in an organization reveal strong emotions, and as a result, several organizations have not learned from past success or failure (Antal et al., 2003). In this light, success and failure help condition the learning organization (Starbuck and Hedberg, 2003) or emotional labor (Scherer and Tran, 2003). Thus, social dimension of learning is another good way to design organizations for organizational learning, instead of considering that learning is an individual preference that is influenced by social elements. Organizational structure can be used to strengthen the effectiveness of the exploration and exploitation of damage, such as failure to recall the lessons of the past and implement solutions to solve past problems and to communicate about current issues which could lead to the inefficiencies of the current screening practices.

Albers and Jerke (2004) systematically presented organizational factors that have significant impacts in knowledge management. These factors include organizational culture which denotes the values reflected in shared behavior and shared attitudes, organizational leadership which comprises of actions, the words, the ethics and the examples that leaders set, the organization's interest in organizational learning which is linked to the priority given to and the efforts made in support of the management of organizational learning), the organizational knowledge processes reflecting the information and knowledge sharing mechanisms, tacit and explicit knowledge exchange, and organizational communication, the organizational structure including the hierarchy, the groups, the geographic location and the work space distribution, and lastly, technological infrastructure such as hardware and software components used in the communication, to collaborate between organizational members, and to store, transfer, transport, create and integrate knowledge. In this regard, the elements in the firm's structure is a good way to design the organization for organizational learning, instead of considering that learning is an individual process for employees and it cannot be facilitated by the firm.

### **The Link between Organizational Structure (OS) and Organizational Innovativeness (OI)**

Nina Jacob (1998) studied 6 Indian organizations and showed that organization design for innovativeness is attributed to the management's strategic choice. Jacob's work presents a comparative study of three creative organizations with novel and useful outputs and three organizations from the same industry that have less creative endeavors. Meanwhile, taking a leaf from Peter Drucker 1985 study on innovation and entrepreneurship, Manimala (1999) examined of 167 entrepreneurial case studies and found sharp differences between what he called "PI" or pioneering- innovative entrepreneurs and ordinary entrepreneurs. Moreover, another study by Jain and Ansari, (1988) found comparable findings on impact making entrepreneurs in India while Boockholdt (1998) presented a literature review on organization innovations. The study found that organizational structure and control system as two out of the eight broad factors affecting innovativeness.

As mentioned, one of the key factors which contribute towards organizational innovativeness is organizational structure. According to Agbim (2013), regardless of the different interpretations about organization structure, it still brings the same meaning. Organizational structure comprises of leadership styles and nature of the relationship between the organization and supervisors. In addition, relationship style can affect organizational innovativeness based on how a leader leads his employees. Tran & Tian (2012) posited that there are many different opinions about organizational structure; some scholars stated that organizational structure including hierarchical levels, is the basic requirement for an organization. Meanwhile, others stated that organizational structure can be referred as the relatively enduring allocation of work roles and administrative mechanism that creates a pattern of interrelated work activities. Thus, organizational structure can be one of the factors that contribute towards organization innovativeness as it is one of the control mechanism which aims to encourage the employees to behave in a certain way to achieve organizational mission and goals (Agbim, 2013).

A strong organizational structure is important in helping an organization to become involved in innovation. Most companies use organizational structure as one of the mechanisms to influence employees to behave effectively and efficiently to ensure



employees can meet their performance goal. Hence, it is critical in determining a company's success or failure (Al Qatawneh, 2014). In 1961, Burns and Stalker became among the first people to identify organizational structure can be used for different situations (Agbim, Oriarewo & Zeven, 2014). According to their work, organizational structure can be divided into two, mechanistic structure, which is best used for organizations that operate under stable conditions and organic structure which can be found in organizations with unstable conditions. Organizational structure may also be influenced by other factors, including the firm's size, environment or technology (Tran & Tian, 2013). Hence, it can be concluded that size can influence organization structure; the bigger the size of the company's structure, the more probable it is for an organization to facilitate innovation as a large organizational structure consists of people that can contribute their idea and creativity. Environment can also influence the structure of an organization.

### **The Link between Organizational Learning (OL) and Organizational Innovativeness(OI)**

Organizational learning is a common topic amongst employers and employees. In this regards, Learning can be described as the process by which individuals acquire the knowledge, skills, attitudes and opinions (Salim & Sulaiman, 2011). Therefore, we can see that learning organizations can help employees to improve their skills and existing knowledge that plays an important role in creating innovative environment. According Kiziloglu (2015), the concepts of organizational learning and innovation have garnered the interests of business researchers and practitioners since the 1990s. It is argued that the lack of knowledge could hinder employees' ability to learn and compete in a competitive environment, and decrease their ability to be innovative, indicating the link between organizational learning and organizational innovation.

Organizational learning is the creation, takeover and integration of knowledge to help the development of resources for a better performance In this light, knowledge is regarded as valuable source where it plays an important role to improve the achievement of an organization. (Mansoor & Ratna, 2014). Knowledge and innovation are related and they could be decimated through meetings, forums and discussions. Zaied et al., (2015) reported that organizations that focused on the organization will often hold meetings and discussion sessions to refresh the employees' knowledge and facilitate learning and innovation. Besides that, organizations need to rely on theories that may benefit them, as according Skerlavaj et al. (2010), organizational learning is a process that takes time because it involves in changing individual and organizational behavior. As the learning process helps create, acquire and transfer knowledge as well as changing of employees' behavior and mindset by providing them with new knowledge and insights (Skerlavaj et al., 2010) organizational learning enables the facilitation of organizational innovativeness as innovation is a process where old products or ideas are improved to create new idea.

The relationship between organizational innovativeness and organizational learning has been examined in many studies. Most studies have suggested that organizational learning enables an organization to gain competitive advantage in the long run (Hamidizadeh & Eghtesadi, 2012). In addition, according to Hamidizadeh & Eghtesadi (2012), organizational learning can encourage organizational innovativeness as it facilitates changes to some specific management practices, for instance strategic direction, idea generation and rewards and recognition to the employees. Similar to other studies, the study advocated that learning

enables organizations to facilitate organizational innovation by changing some specific management practices to the strategic direction, supporting idea generation and employee reward and recognition, and help organizations to achieve competitive advantage in the long run.

### Theoretical Framework

Kayhan Tajeddini (2014) examined the impact of the organizational structure and entrepreneurs' innovation in the context of the Japanese hotel industry. The data were collected from questionnaires distributed to 115 hotels in Japan and the background of innovation in the Japanese hotel industry were examined by using multiple regression analysis. While the study reported similar findings as the previous studies, it has provided new information on the impact of organizational structure and hoteliers' inclination for innovativeness.

JA Martínez-García (2011) determined the type of organizational structure which provides the right conditions for the development of organizational learning. This study fills in the gap in the empirical evidence on the influence of organizational structure on organizational learning. This study has helped advance the measure of this emergent field of management research by using this formative conceptualization. The study presents a research-based model which adopts the concept of formative organizational learning. The framework describes that organizational learning varies according to the types of structure (organic and mechanistic). It also presented the differences between the variables of different designs (specialization, inauguration, autonomy, centralization and indoctrination) to deepen the understanding of the implications of different organizations. It was shown that organizations with organic structural profile helps facilitate organizational learning and greater knowledge creation compared to organizations with mechanistic structural profile and the critical variables that facilitate learning are centralization and indoctrination.

Based on the theoretical framework, following hypotheses have been formulated and a conceptual model has been developed to be tested (see Figure 1). The model considers different organizational culture as independent variables, organizational learning as the mediator, and organizational innovativeness as the outcome variable.

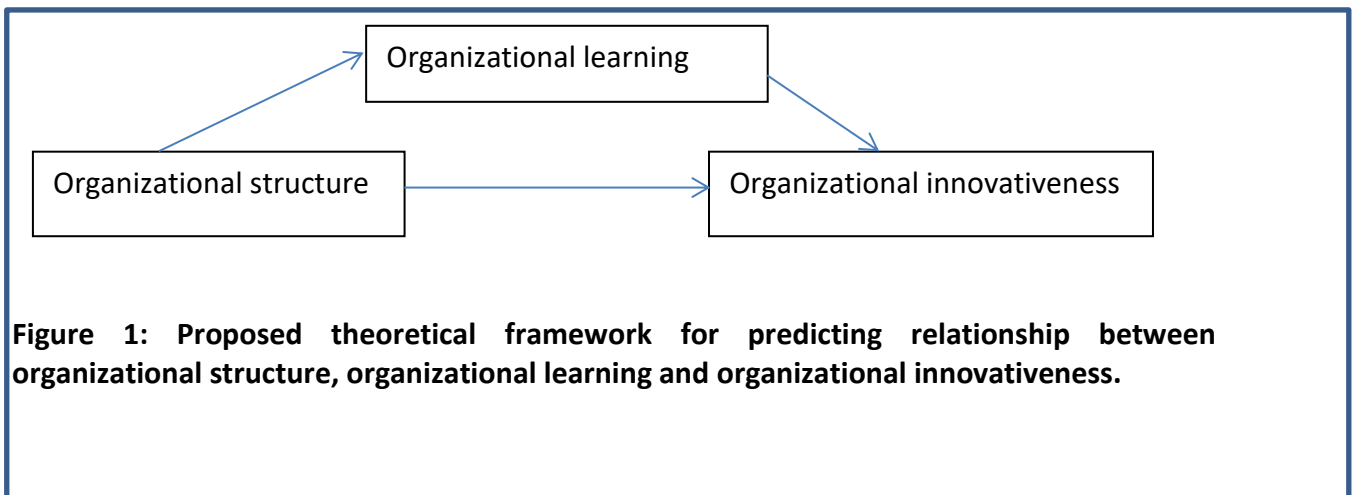
**Hypothesis 11:** *There is a positive relationship between organizational structure and organizational learning*

**Hypothesis 12:** *There is a positive relationship between organizational learning and organizational innovativeness*

**Hypothesis 13:** *There is a positive relationship between organizational structure and organizational innovativeness*

**Hypothesis 14:** *There is a positive relationship between organizational structure and organizational innovativeness mediated by organizational learning*

Based on the literature reviewed the theoretical framework shown in figure 1 is proposed



## Conclusion

This study has revealed the importance of organizational structure, organizational learning and organizational innovativeness. This study supports the previous studies which provided the conceptual framework on the dynamic capabilities theory. The conceptual framework explains the direct relationship between organizational structure, organizational learning and organizational innovativeness. The conceptual framework in this topic is nevertheless confined to, the results obtained from a literature review and thus, not practically proven and the future is wide open for further empirical research in this field. This study provides a stepping stone for further research on finding important factors related to enhancing innovation and competitive advantage.

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