

# Factors Influencing Firm Performance, Mediating Role of Competitive Advantage, and Moderating Role of Cultural Intelligence: A Conceptual Framework

**Zheng Yao Ooi**

*Universiti Sains Malaysia*

Email: thomasjohnnnn@gmail.com

**Shankar Chelliah\***

*Universiti Sains Malaysia*

Email: shankarchelliah@gmail.com

*\* Corresponding Author*

## **Abstract**

**Purpose:** This study aimed to propose a comprehensive framework to study the knowledge transfer and innovation as a fundamental source of competitive advantage toward firm performance of subsidiaries of the foreign-based MNCs in Malaysia.

**Design/methodology/approach:** Meta-analysis has been used for this study.

**Findings:** Conceptual framework and themes are the outcome of the meta-analysis. The outcome of the meta-analysis shown that there are many factors can influence firm performance included knowledge transfer, innovation, competitive advantage, and cultural intelligence.

**Research limitations/implications:** Research output limited to foreign-based MNCs. The research framework might be useful during Covid-19 pandemic and post-pandemic time to understand cultural intelligence in determining its firm performance.

**Practical implications:** Practical output limited to foreign-based MNCs. The framework should offer practical value for senior management to organize and manage firm's activities in term of knowledge transfer and innovation to understand cultural intelligence in determining its firm performance.

**Originality/value:** By confirming the mediator (competitive advantage) and moderator (cultural intelligence), this study offers important and noteworthy insight in explaining the relationship between knowledge transfer and firm performance, and innovation and firm performance.

**Keywords:** Knowledge Transfer, Innovation, Competitive Advantage, Cultural Intelligence, Firm Performance

## **Introduction**

Knowledge transfer and innovation are both crucial and important towards the current business environment. The rapid change in the competitive business environment at unpredictable speed has increased the challenges for business, especially in the field of international business. Therefore, knowledge transfer and innovation are highly imperative to be the primary priorities for firms to achieve competitive advantage and lead better firm performance. Besides, cultural intelligence is playing a moderating role in international performance (Faruk and Sait, 2017).

Cultural intelligence is moderating innovation on firm performance (Sarraf, 2019). In addition, cultural intelligence is moderating knowledge sharing/transfer in a diverse multicultural work setting which impacts the managerial decision (Mohammad and Mehmet, 2021).

Knowledge transfer and innovation are the two topics that have been discussed so much by researchers and academicians previously. The advantages gained through knowledge transfer and innovation by fostering knowledge to enhance firm performance. On the other side, an emerging interest has represented the relationship between knowledge transfer and innovation towards firm performance with different cultures in the manufacturing industry.

Knowledge transfer has been defined by Szulanski (1996) and Minbeave et al. (2018) stated that it is a process takes place to exchange knowledge between the knowledge sender and knowledge learner (receiver), but the knowledge transfer process is depended on few determinants to achieve effectiveness. Furthermore, innovation has been used as a source of the strategic management for company growth (Martin et al., 2018), and it has been proven by the researchers to the market that the firm performance improved in term of business strategy, customers, assets, capabilities, resources, product offerings, and/or services offerings (Kim and Mauborgne, 1997).

A review of the literature revealed that most research are on knowledge transfer and innovation are concentrated on business operation, business management, and company's resources instead of the manufacturing capacity of the company. For example, firm performance is a relevant construct in research papers of business and management across the world market and it is frequently used as management's strategy in many companies (Selvam et al., 2016).

### **Current Issues**

The Covid-19 pandemic impacted many industries and affected the country's economy especially emerging market economies such as countries within Southeast Asia. The covid-19 pandemic triggered some forum discussion on economic recovery that resulted in an increase of interest in knowledge transfer and innovation for firm performance especially in the manufacturing industry. After reviewing many past research papers, it is hard to find any research on knowledge transfer and innovation with moderating effects of cultural intelligence in manufacturing companies. Manufacturing companies terribly needs of knowledge transfer and innovation to diversify products for various markets to enhance firm performance in the local markets. Hence, management needs to focus on the role of knowledge transfer and innovation of the subsidiaries of the foreign-based MNCs in Malaysia. In addition, the management needs to explore how cultural intelligence can moderate firm performance and how competitive advantage can mediate firm performance of the subsidiaries of the foreign-based MNCs in Malaysia that are based in the manufacturing industry.

One industry has not received much attention in the research of the subsidiaries of the foreign-based MNCs in Malaysia is the manufacturing industry. There is a dearth of research that conducted over knowledge transfer and innovation in the manufacturing industry particularly in Malaysia. There are many studies conducted over subsidiaries of the United States (US) firms, Japanese firms, and German firms, however, there are limited studies on firm performance with knowledge transfer and innovation as the factors. Previous studies on firm performance are concentrated on corporate governance (Shafie et al., 2016), Intellectual Capital efficiency (Shareem, 2020), and ownership structure (Abdulsamad and Wan Yusoff, 2016).

Besides, previous studies did not include cultural issues that might be a significant influence on the accuracy of the model used to measure firm performance in Malaysia as Malaysia is a multiracial country. Cultural issues are important in the context of foreign MNCs because cultural differences between sources of knowledge and the recipient's ability to understand content of the knowledge will impact the knowledge transfer process (Lin, 2011; Simonin,

1999). According to Davor et al. (2018) that cultural intelligence plays a significant role in the knowledge transfer process in knowledge management, international business, and organizational behavior to achieve performance, missions, and visions effectively and efficiently (Alguezaui & Filieri, 2010).

However, in recent years, some of the foreign-based MNCs had moved out from Malaysia to Thailand and Vietnam (Wong, 2017). According to Wong (2017), about 40 foreign organizations have ended their operations in Malaysia and shifted their operations to other countries such as Thailand and Vietnam since 2013. In addition, hard-disk maker, Seagate Technology Plc and computer data storage giant, Western Digital Corporation announced that they would be relocating their major operations to Thailand for cost reduction (Wong, 2017). The action is due to non-sustainable competitive advantages, lack of human talents, and low level of knowledge among Malaysian pool of employees.

It is very hard to determine or examine firm performance as different industries measure firm performance differently. There is some degree of differences in factors influencing firm performance between local companies and foreign MNCs. Foreign MNCs will need to take exchange rate, economic policy uncertainty, local economic growth and local market inflation rate into consideration when measuring their firm performance (Mariadas et al., 2021). There are several factors that influence firm performance of subsidiaries of the foreign-based MNCs in Malaysia such as knowledge transfer, innovation, and cultural intelligence.

According to Calantone et al. (2002) that innovation is the key for firms to survive in a dynamic change environment. The relationship between innovation and firm performance and relationship between knowledge transfer and firm performance are frequently presented in many empirical studies across the world. There are many studies presenting positive and negative implications for innovation and firm performance relationships. Furthermore, some researchers such as Birley and Westhead (1990) found innovation does not influence firm performance, however, some researchers found innovation does influence firm performance (Vermeulen, 2005). The positive relationships (Li and Atuahene-Gima, 2001) and negative relationships (Vermeulen, 2005) were found between innovation and firm performance. Hence, there is a mixed and inconclusive relationship between innovation and firm performance.

Employees from different cultures might perceive efficiency of the operation process differently and/or perceive knowledge and innovation differently. After thorough review on previous studies, no studies found on firm performance with knowledge transfer and innovation as factors have been conducted over subsidiaries of the foreign-based MNCs in Malaysia. There are many subsidiaries of the foreign-based MNCs in Malaysia and especially in the manufacturing industry (manufacturing industry contributed to major income for Malaysia).

### **Research Gaps**

Based on the past research studies, it is showing there were gaps in the past research studies, and it provided chances and opportunities for this research. This research study provided chances and opportunities for firms to enhance and improve their knowledge transfer and innovation processes to achieve better firm performance. It also provided opportunities for analysing competitive advantage as the mediator to influence firm performance and analysing cultural intelligence to moderate factors and firm performance. Past studies trying to link knowledge transfer and innovation, and its antecedents in organization are downside and are being affected by methodological errors and limitations (Inkpen and Tsang, 2005; Wijk et al., 2008).

First, the knowledge transfer process is still ambiguous regarding how it contributes to firm performance and how it contributes to firm development (Chen, 2017). In the previous research studies, competitive advantages and cultural intelligence are not included in the knowledge

transfer and innovation studies which gives an opportunity to improve the model or framework (Hua and Wemmerlov, 2006; Chen, 2017).

Besides, Fang and Wang (2006) explained in their theoretical framework that clearly defined resources and capabilities of firms to receive and understand knowledge have high correlation with better firm performance. This gives opportunities for firms to understand the importance of firm resources and capabilities to transfer and receive knowledge and it might become the competitive advantage for the firm to achieve better firm performance. This research will close the gap by highlighting the resources and capabilities of the firm to understand knowledge as one of the important elements to improve firm performance.

Moreover, other studies found knowledge transfer and innovation were researched with culture, leadership, adaptation, and knowledge quality to determine firm performance and did not involve competitive advantage as the mediator (Corral et al., 2018). This provides opportunity to the present research to explore knowledge transfer and innovation with competitive advantage as the mediator and cultural intelligence as the moderator to determine the firm performance.

### **Literature Review**

The conceptual framework discusses the background of each variable including the dependent variable (firm performance), independent variables (knowledge transfer and innovation), mediating variable (competitive advantages), and moderating variable (cultural intelligence).

### **Firm Performance**

Business performance or firm performance evaluation is an inseparable task for management of a firm and is very difficult to justify the result of overall firm performance (Narkuniene and Ulbinaite, 2018). The overall firm performance should take consideration of business decisions, management decisions, the direction of business strategies, and the decision of business improvement strategies (Narkuniene and Ulbinaite, 2018). In the past, firm performance was evaluated from the firm's accounting and financial data reported in the annual reports or reported to the business tax bureau. However, many studies noted and found that a firm's accounting and financial data alone is insufficient to analyze and evaluate firm performance (Narkuniene and Ulbinaite, 2018). Hence, it needs to include firm's non-financial performance of the firm as indicators.

The European Commission stated that the sustainable global economy is significantly related to the disclosure of non-financial information for the long-term profitability under the combination of both social justice and environmental protection (Narkuniene and Ulbinaite, 2018). Hence, in order to have a more accurate firm performance evaluation, the firm needs to take into consideration both financial information and non-financial information. Financial information included accounting and financial data while non-financial information included operational data, market share data and economic value data.

Today, there are unprecedented numbers of multinational corporations in the dynamic and fast-growing markets. These multinational corporations are commercial and industrial firms that are interested and have subsidiaries established across the world. They entered these markets through their internationalized capital, innovation, organizational processes which included knowledge transfer, and production by drawing on values, belief, religion, country's procedures, and cultures from different regions and locations (Oberföll et al., 2018).

Past empirical studies show a huge variety of approaches in the analysis of operationalizations of firm performance covering factors in full, partial, or even in an unbalanced method (Carton and Hofer, 2006; Santos and Brito, 2012). The firm that uses knowledge transfer is able to achieve competitive advantage which leads to the firm performance either making profits or losses. Thus, firms are able to perform better from both internal knowledge transfer and

external knowledge transfer (Jyoti, 2013; Prihadyanti et al, 2021). One of the primary concepts in the business and strategic management literature is the concept that the firm performance is a multi – dimensional construct (Murphy et al., 1996; Dekker et al., 2014).

### **Knowledge Transfer**

Transfer of knowledge especially transfer of technological related knowledge is extremely difficult as it is basically relied on by a group of individuals or experts (Hakanson and Nobel, 2000). Foreign knowledge transfer has a challenge where the skills provider and the skills learner are often separated by time, space, culture, and language, which may limit their ability to access, share, and learn knowledge effectively (Fang et al., 2010).

Knowledge management is able to classify knowledge transfer into two different types which are codification knowledge transfer and personalization knowledge transfer (Rhodes et al., 2015). Codification knowledge transfer focused on explicit knowledge transfer where knowledge is codified and stored in databases and can be accessed by anyone (Rhodes et al., 2015). Codification knowledge transfer also known as People – Documents Approach knowledge transfer (Rhodes et al., 2015).

While personalization knowledge transfer focused on tacit knowledge transfer which is more focused on individuals (Rhodes et al., 2015). Personalization knowledge transfer is closely tied to the person who developed the specific knowledge and shared mainly through direct person to person contacts (Rhodes et al., 2015). Personalization knowledge transfer better known as People – people approach knowledge transfer.

From the research study conducted by Corral et al. (2019) that demonstrated the relationships between knowledge transfers and customers, knowledge transfer and suppliers, knowledge transfer and knowledge quality, knowledge transfer and innovation, and knowledge transfer and firm performance. According to Corral et al. (2019) that there is a relationship between knowledge transfers to firm performance included innovation acts as the catalyst (mediator) to influence the firm performance. According to Taupik and Abdullah (2017) that knowledge transfer can serve as a powerful catalyst for firms to achieve firm's goals and better firm performance.

### **Innovation**

Innovation has been defined by various researchers in various ways in the literature. Innovation refers to the creation of new combinations of existing resources (Taylor, 2017). Innovation refers to the introduction of a new combination of existing factors of production into the existing production system of the organization (Chen et al., 2004). Innovation is being described as the adoption of an idea or skills that is newly discovered and is uncertain to organization (Herkema, 2003).

Innovation is largely dependent on the knowledge and expertise of employees in an organization as the major inputs to the process of knowledge transfer and knowledge management especially in the presence of cross – border inter – organization knowledge transfer (Ramayah et al., 2010).

Previous studies have confirmed innovation has a positive result on firm performance and affected firms' competitive advantages. A study had been conducted based on the pharmaceutical industry in the United States of America, and the result showed that innovation activities had a positive result on the return on investment of pharmaceutical firms in the long run (Roberts, 1999). Besides, an empirical study had been conducted based on Fortune 100 companies and the results showed that innovation of firms was positively related to the growth of the study companies (Cho and Pucik, 2005). Furthermore, the results also showed that innovation of the firm was positively related to the profitability of the firm (Cho and Pucik,

2005). In addition, Canh et al. (2019) supported innovation positively correlated with firm performance especially in terms of economic value.

There were some researchers conducting a study on the relationship between new products and firm performance, and a positive correlation result was presented for the study (Hua and Wemmerlov, 2006; Chen, 2017). There were many studies conducted over innovation of firms to the firm performance, and many of the studies have confirmed that the higher the level of innovation in firm, the better the firm performance (Price, 2005; Gunday et al., 2011; Anh et al., 2019).

However, some researchers argued that the relationship between innovation and firm performance is not so direct and is not all positive, which likely impacted by the competitiveness (Chen, 2017). The relationship between the factor, innovation and output, firm performance is uncertain, where it is affected by internal capital of the firm, external market factor, government policy, and other environmental factors (Huang and Rice, 2009; Chen, 2017).

In the studies by Liao and Rice (2010) they used a sample of 449 Australian manufacturing companies from the Australian Bureau of Statistics to perform their research and they concluded firm performance was driven by factors of innovation and was mediated by the transformation outcomes.

Moreover, their research study also resulted in innovation related activities able to facilitate a firm's competitive advantage when two elements coincidentally occurred at the same time (Liao and Rice, 2010). The two elements are actual market position changes and the products or services offered by the firm at the same time (Liao and Rice, 2010).

According to a framework built by Neely et al. (2001) to conduct research on the relationship between business performance, innovation, and internal and external factors, able to facilitate innovation. Neely et al. (2001) had inserted outcomes of innovation as the intermediate block of variables to refer to the efficacy of innovation for the firm to obtain better business performance.

### **Competitive Advantage**

Over the years, economists have argued that competitive advantages are temporary in nature and it will decay quickly (McGee, 2015). Previous studies on competitive advantages have been focused on how defensible and durable the advantages can be (McGee, 2015). There are several competitive advantages for foreign-based MNCs to conduct knowledge transfer from their headquarters to their foreign subsidiaries. Knowledge transfer from foreign MNCs to subsidiaries able to help subsidiaries to gain competitive advantages over its competitors.

According to Porter (1980) that there are three types of competitive advantages which are cost leadership strategy, focus strategy, and differentiate strategy (Islami et al, 2020). Even though there are more than one competitive advantage strategies available, this research study only will discuss differentiation strategies and other strategies will not be discussed further. Foreign-based MNCs especially from the West are not focused on cost but rather focus on the product quality, and they focus on a variety of products and brands instead of one product or single brand. Hence, only a different strategy is suitable in this research.

According to Grant (2005) that differentiation strategy is not for companies simply offering different products with different features, but it is more towards identifying and understanding all possible and potential relationships between company and all other stakeholders (Islami et al, 2020). In addition, differentiation strategy is also questioning on how the relationship can be built up, improved, and/or changed for delivering additional value and/or quality to potential stakeholders or customers (Grant, 2005; Islami et al., 2020).

This knowledge transfer can create differentiation and competitive advantages for the subsidiary of the foreign-MNCs to improve their operation, process, and management to further

improve their overall firm performance. When a firm is able to achieve and sustain their differentiation advantage, the firm will be an above average performer in the market (Porter, 1980). If the firm is able to offer products or services with price premium exceeding the costs incurred, the firm will be considered unique in the market (Porter, 1980).

Competitive advantage and firm performance could have different patterns of relationship (Ma, 2000). According to the conceptual model of Ma published in 2000, that competitive advantage was able to help firms to create better value for their customers where competitive advantage contributed greatly to the firm performance.

By understanding what all stakeholders', customers', and suppliers' need, what their behaviours, and what drives them to choose the products, it is possible to identify and determine the chance for more profitable performance with the differentiation strategy (Ivancic and Jelenc, 2012). The only limitation for differentiation in any product or service is the human imagination (Ivancic and Jelenc, 2012). Differentiation strategy is used in several different contexts for example innovation differentiation, quality differentiation, and resource and capability differentiation, and each with different characteristics in mind.

### **Cultural Intelligence**

Cultural Intelligence is related to emotional intelligence; however, cultural intelligence consists of those determinants that are not available in emotional intelligence (Earley and Mosakowski, 2004). In the 21st century, communication and businesses conducted without borders, many organizations have become multinational, international, or transnational organizations and therefore all these organizations are multicultural organizations which consist of employees from different regions with different cultural backgrounds (UNCTAD, 2016). According to Raver and Van Dyne (2017), employees with foreign backgrounds, especially in terms of culture and race, are forced to cooperate and to share knowledge with the organization they are working with or within the organization network.

In the research conducted by Caputo et al. (2018) that cultural intelligence can act as the moderating role in the relationship between cultural orientations and conflict management styles. Past study by Caputo et al. (2018) had confirmed the implication of cultural orientations on conflict management styles, which included avoiding factor, forcing factor and problem-solving factor. According to Sahin and Gurbuz (2017) that the level of cultural intelligence of the top manager increased, the relationship strength between managerial behaviour and firm performance increased. The framework by Caputo et al. (2018) helps this research to include cultural intelligence as the moderator towards innovation and knowledge transfer processes in the firm to enhance firm performance.

However, communication in terms of cross – border communication is very difficult for all the organizations and individuals as cultural distance between individuals from different countries may stop individuals from sharing and transferring their knowledge and interactions. Moreover, cultural distance has been described as the cultural differences in an individual from a different country in terms of languages, norms, religions, values, and the way individuals communicate and interact with each other (Hutzschenreuter et al, 2016). This has become a very challenging situation for foreign-based MNCs to enter a country that is completely different from the home country.

According to Raver and Van Dyne (2017), individuals with high cultural intelligence are capable to think and act in the right ways in the context of intercultural communication which may help them to communicate and interact efficiently and effectively in cross – border communication. Furthermore, cultural intelligence is required by multinational organizations, international organizations, and transnational organizations for entering multiple markets in different regions. An organization without employees or management members with a high

level of cultural intelligence unable to create competitive advantage for a firm over its rival to compete in the markets.

### **Challenges in Knowledge Transfer and Innovation with Cultural Intelligence**

Knowledge is a multidimensional concept with different meanings in different perspectives (Dikmen, 2016). Nonaka (1994) and Dikmen (2016) defined knowledge as true belief. Explicit knowledge can be transmitted through a formalized language, symbols, and explicit facts (Kogut and Zander, 1992; Dikmen, 2016) while tacit knowledge refers to an intuitive and unspoken knowledge (Inkpen and Dinur, 1998; Dikmen, 2016).

Innovation acts as an action whereby knowledge is being acquired, being shared, and being assimilated with the objective to create new knowledge or skills from the existing sources or experiences to gain competitive advantage. According to Chen (2017), innovation in a firm is multi-faceted as firms will introduce and implement innovation differently and no innovation will implement in the same environment, hence it would result in different firm performance for different firms, even with the same innovation techniques implemented.

This study considered knowledge transfer and innovation as crucial aspects in the manufacturing industry of the subsidiary of the foreign-based MNCs in Malaysia. Past studies have focused on all industries, but very less study has conducted on manufacturing in Malaysia. This study assumed that knowledge transfer and innovation are both the key processes to achieve better firm performance. Therefore, improving the knowledge transfer and innovation processes when needed, implies a better achievement in the firm performance. Not to forget about the cultural intelligence that has a high level of influence on the knowledge transfer process and innovation process as individuals from different cultures will interpret knowledge differently.

This study primarily focused on the process and level of innovation with different levels of culture intelligence that impacted firm performance in the manufacturing industry of the subsidiary of the foreign-based MNCs which was not done previously. In the context of Malaysia, knowledge transfer and innovation examinations are based on individual aspect, organizational aspect, and environmental aspects respectively. This study presented knowledge transfer, innovation, competitive advantage, and cultural intelligence in one framework to explain how these four variables influence firm performance. Table 1 explained all the operational definitions for all the variables in the framework.

Table 1 shows the operational definitions for all variables

<b>No.</b>	<b>Variable</b>	<b>Definition</b>	<b>Citation</b>
1.	Firm Performance	The potential and ability of firm to efficiently utilise the available resources to achieve performance in line with firm's missions and visions	(Taouab & Issor, 2019)
2.	Knowledge Transfer	To convert and to send knowledge among one organization to the other or within the organization	(Spalek, 2014)
3.	Innovation	The creation of new products or services from existing resources of the firm	(Taylor, 2017)
4.	Competitive Advantage	Is the obtained when firm acquires an attribution that allow the firm to perform better than its competitors	(Wang, 2014); (Isoraite, 2018)
5.	Cultural Intelligence	The individual's capacity to adapt to a new cultural environment	(Solomon and Steyn, 2017)

### Hypothesis Development

The initial literature review identified several factors influencing firm performance and led to the development of an overview model, or map tree, that represents the main factors to firm performance (Figure 1). All these factors are organized into the conceptual framework that is based on the framework model established by Corral et al. (2018) for knowledge transfer with firm performance and based on the framework model established by Neely et al. (2001) for innovation with firm performance. In Corral et al. (2018), innovation behaved as the mediating factor while in Neely et al. (2001) competitive advantage behaved as the mediating factor. From both models, all the factors are combined to summarize and determine the firm performance as the dependent variable in this research. Knowledge transfer and innovation being determined as the independent variables. In addition, competitive advantage being integrated as the mediating variable and cultural intelligence being integrated as the moderating variable in this research. All the factors summarized to form a conceptual model as shown in (Figure 1).

The conceptual model in this research is shown below:

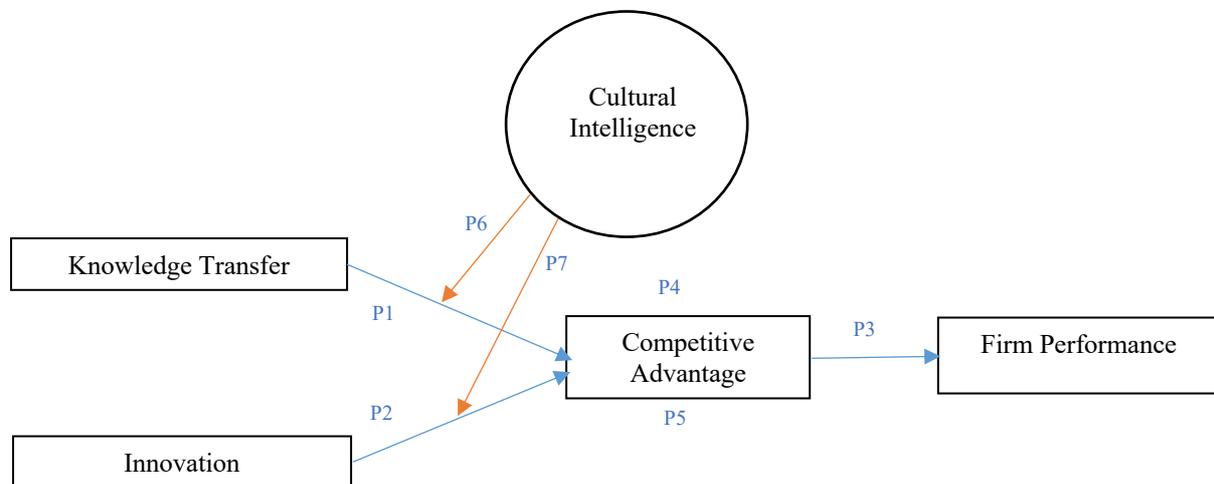


Figure 1: The Conceptual Model

Knowledge transfer and technology transfer have become an important topic for organizations which have many subsidiaries especially in foreign countries, resulting in a remarkable increase in the number of knowledge transfer agreements between different organizations in different countries (Burnett and Williams, 2014). Previous research mentioned that when the ambiguity decreases, a firm performance may be eroded as it is decreasing its competitive advantage (McEvily et al., 2000; Jasimuddin et al., 2005).

P1: Knowledge transfer has a positive significant relationship with attainment of competitive advantage among subsidiaries of the foreign-based MNCs

Innovation has brought competition to the firm. Competition has been defined as one of different types of innovation that offers individuals or firms a competitive advantage (Ramayah et al., 2010). According to Markic (2006), many research studies found that process innovation has been proven to be a precondition for business excellence.

P2: Innovation has a positive significant relationship with attainment of competitive advantage among subsidiaries of the foreign-based MNCs

According to Ma (2000) that competitive advantage is able to help firms to provide product or service with better quality and value for their customers where competitive advantage contributes greatly to the firm performance. Competitive advantage and firm performance could have different patterns of relationship (Ma, 2000). This knowledge transfer can create

differentiation and competitive advantages for the subsidiary to improve their operation, process, and management to further improve their overall firm performance.

P3: Gaining competitive advantage has a positive significant on firm performance of the subsidiary of the foreign-based MNCs

### **Mediating Role of Competitive Advantages**

The primary role of the mediator is to facilitate communication between dependent variables and independent variables to enhance the relationship or better outcome. Competitive advantage positively influences firm performance of subsidiaries of the foreign MNCs in Malaysia. The competitive advantage is unique and cannot be imitated by other competitors (Barney, 1991). The knowledge transfer through codification and/or personalization is able to create competitive advantages for subsidiaries in foreign countries to compete with other competitors in the domestic market. Furthermore, the unique or specific knowledge that transfer to subsidiaries from the foreign MNCs is creating a competitive advantage that is able to mediate better firm performance for the subsidiary in Malaysia.

P4: Attainment of competitive advantage by subsidiary of the foreign-based MNCs mediates the relationship between knowledge transfer and firm performance

The innovation of product or process able to create competitive advantage for subsidiaries of the foreign-based MNCs in Malaysia. In the perspective of management, innovation is all the activities related to the process of creating new ideas, new technologies development, new methods of manufacturing and marketing of a product, new manufacturing, and marketing process, use of newly created equipment (Trott, 2008). For many years, academic researchers and industry researchers have predicted that company innovativeness and firm performance are mutually beneficial from and significantly related to technology and design (Farhana and Bimenyimana, 2015). Furthermore, the unique innovation product or process that the subsidiary owned or used in managing the firm is creating a competitive advantage that is able to mediate better firm performance for the subsidiary in Malaysia.

P5: Attainment of competitive advantage by subsidiary of the foreign-based MNCs mediate the relationship between innovation and firm performance

### **Moderating Role of Cultural Intelligence**

The primary role of moderator is to strengthen, diminish, alter the relationships between dependent and independent variables in the research study (Allen, 2017). Cultural intelligence positively influenced firm performance of subsidiaries of the foreign-based MNCs. According to Wu and Lee (2017), cross – cultural knowledge transfer and knowledge sharing required communication capabilities that reduce the negative effects of cultural distance in organizations, especially organizations with international subsidiaries. According to Chen and Lin (2013), cultural intelligence is the primary driver of knowledge transfer and knowledge sharing in the organization with cultural diversity. Cultural intelligence can improve knowledge transfer and competitive advantage as employees can work better when they are aware of cultural diversity (Jyoti et al., 2019) and competitive advantage can be created faster or more efficiently.

Previous studies less investigate cultural intelligence as a moderator to influence the creation of competitive advantage. Cultural intelligence able to enhance employees' innovative work behaviour through high level of engagement in work and high level of trust and belief in each other (Afsar et al., 2020), and competitive advantage can be created faster or more efficiently. Cultural intelligence as the moderator is able to strengthen the relationship of the subsidiary of the foreign-based MNCs in Malaysia as it is able to reduce the communication barrier or enhance the understanding of information to performance tasks to achieve better firm performance. With the presence of cultural intelligence in the subsidiary of the foreign-based

MNCs in Malaysia, the management from the parent company is able to communicate well with the local employees. The information from the top is able to reach the bottom clearly and easy to understand by the employees at the bottom.

P6: The higher the cultural intelligence, the better the relationship between knowledge transfer and competitive advantage attainment among subsidiary of the foreign-based MNCs

P7: The higher the cultural intelligence, the better the relationship between innovation and competitive advantage attainment among subsidiary of the foreign-based MNCs

### **Methods**

Meta-analysis is the statistical analysis of the data from independent primary studies that focused on the same questions and objective, which positions to produce a quantitative approximate of the studied occurrence (Gopalakrishnan and Ganeshkumar, 2013; Mikolajewicz and Komarova, 2019). Outcomes from a meta-analysis may include a more precise estimate of the effect of knowledge transfer and innovation with cultural intelligence factors for firm performance, or other outcomes, than any individual study contributing to the pooled analysis.

There are several stages of Meta-analysis methodology in this study. The first stage of review involves formulating the primary objective in the form of a research question or hypothesis (Mikolajewicz and Komarova, 2019). Second stage is systematic review and meta-analysis where comprehensive search strategies are used to identify all relevant articles on the primary objective (Mikolajewicz and Komarova, 2019). Third stage is screening and selection of the relevant articles which include inclusion and exclusion to ensure consistency of the study (Mikolajewicz and Komarova, 2019). The fourth stage is extraction of identified data or information relevant to the study (Mikolajewicz and Komarova, 2019). The last stage is tabulation of the data or information, and form the complex relationships (Mikolajewicz and Komarova, 2019).

### **Findings**

This study proposed the factors of firm performance considering all aspects for subsidiaries of the foreign-based MNCs including knowledge transfer (independent variable), innovation (independent variable), competitive advantage (mediator), and cultural intelligence (moderator).

This research study focused on the firm performance of the subsidiary of the foreign-based MNCs operating in manufacturing industry in Malaysia. The primary interest of this research study includes knowledge transfer and innovation as factors to influence firm performance. Previous research studies mentioned most of the existing theoretical research and empirical studies shown knowledge transfer alongside with other external factors such as innovation, and cultural intelligence are believed to be an influencing factor for firm performance, therefore making the research framework a central focus in this research study.

Moreover, firm performance is the foundation for companies to measure company effectiveness, and operational successfulness over long term competitiveness. Each company must measure their firm performance every year, and firm performance becomes key to focus on business sustainability for the company. Foreign-based MNCs need to exchange their information within the parent company and the subsidiaries in a foreign country to make sure the subsidiary is able to sustain in the domestic market.

Besides, innovation is also playing a vital role in promoting better firm performance. When the firm takes innovation into consideration in their management, manufacturing, knowledge, and/or human capital management, the firm will gain a competitive advantage over their rivals. This will help the firm to achieve better firm performance.

Based on past literature reviews on cultural intelligence, understanding of knowledge transfer, innovation, and firm performance in the firm are very important for management to make decisions on what knowledge to transfer and what innovative style to be implemented with the consideration of the level of cultural intelligence in the firm, in order to create competitive advantage. In determining the firm's performance of the subsidiary of the foreign-based MNCs in Malaysia, the knowledge transfer process and innovation process must exceed the expected outcomes of both knowledge transfer and innovation.

### **Discussion and Conclusion**

This study defines and analyzes the significance of firm performance with relevance to competitive advantages from both knowledge transfer and innovation. The study further expands by measuring the significance of competitive advantage as mediator towards firm performance. In addition, it is also measuring the significance of cultural intelligence as moderator towards firm performance.

With the dynamic change in terms of globalization and collaboration within the countries resulted in knowledge transfer, innovation, and firm performance always being visited for variable improvement. It also found the requirement of resources and capabilities needed to be evaluated in the firm performance. This is because resources to attain knowledge transfer and innovation from firms require capable humans to attain such knowledge and innovation and turn them into competitive advantage to improve firm performance. The contributions are both theoretical and practical.

### ***Theoretical Implications***

Theoretical implication of this framework is that it is one of the few studies of knowledge transfer and innovation influenced firm performance that spans a cross-section of subsidiaries of the foreign-based MNCs in Malaysia. By exploring multiple past research studies, this research study uncovers the key factors affecting firm performance of subsidiaries of the foreign-based MNCs in Malaysia. Besides, another theoretical implication of this framework is that if firms ignore cultural intelligence in measuring and analysing the firm performance possibly giving a misleading overall performance evaluation. This research study opens a window for the subsidiary of the foreign firms located in Malaysia today, drawing a practical portrait of innovation and knowledge transfer underway in subsidiaries of the foreign-based MNCs which influence the firm performance.

### ***Practical and Social Implications***

Practical and social implications of this research framework adopt a holistic view to study firm performance with knowledge transfer and innovation as the factors, striving to form a useful model for foreign firms to adopt and to facilitate a distinctive strategy to maximize firm performance. The firm will be able to seek for the correct way to share or transfer their knowledge from the top to the bottom, and the management will be able to understand the proper knowledge to be transferred with the present of cultural intelligence to increase the effectiveness and efficiency of work. Another practical implication of this study is that foreign MNCs will be able to foster the relationship of the management and employees through the understanding of the level of cultural intelligence in everyone in the firm. Besides, it also helps the management to decide which tasks or knowledge to assign to individuals with the proper level of cultural understanding in the subsidiary of the foreign-based MNCs.

Furthermore, another social implication of this study is that communities and individuals must invest time and money and use human resources to enable them to understand foreign cultures and languages. The communities and individuals that make these investments are a long-term investment to society and economic growth. This increases the tax revenue for the local

government from the demand of learning new skills and languages, and in return the local government will improve the government services such as improve the road conditions, increase the number of libraries, and other public facilities. This also facilitates the growth of language centres, tuition centres, community colleges, and vocational schools that train the local workforces to equip them with needed skill sets.

In addition, this research study is beneficial to other academic researchers. The academic researchers will be able to conduct research with more factors based on this framework. It helps the future researchers to reduce and simplify their workload from the scratch.

### ***Limitations and Suggestions for Future Research***

This research framework is limited to foreign-based MNCs in Malaysia and focuses on knowledge transfer and innovation that are the factors to influence firm performance. This research includes cultural intelligence as moderator in determining its firm performance, but there are other factors that can be included as moderator that might influence the firm performance. Suggestions for future research include more independent variables as factors to enhance accuracy of the result to determine firm performance. In addition, future research can involve more foreign-based MNCs from different regions and more industries.

In conclusion, this research study will have a different outcome against the research study conducted over other countries especially from the West. In western countries, only one or two races majorize the workforce, but Malaysia has more than three races that are involved in the workforce. Besides, the culturally different for different races will create difficulties for foreign-based MNCs to establish their subsidiary in the domestic market as foreign management will face communication barriers and cultural issues.

Therefore, to align with the proposed framework, the knowledge transfer process and innovation process involve multidimensional factors. The cultural intelligence in the proposed framework should be able to moderate the firm performance of the subsidiary of the foreign MNCs in Malaysia as Malaysia is a multi-races country. This proposed framework is relatively new to the firm as the business model. This proposed framework should be able to help the firm to measure firm performance more accurately.

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