

The Moderating Effects of Technology Adaption and Decision Authority on the Relationship between Export Performance and Innovation Performance

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Abstract

Exportation plays an important role for increasing innovation performance. Firms that have clear vision will help R&D and manufacturing teams to know the way to apply technology and know-how within firms to develop product for exportation. This study aims to testing how moderator effect on the relationship between export performance and innovation performance. This research study utilizes company level data from Thailand, obtained from the "Productivity and Investment Climate Survey" (PICS), carried out by the Thai government in collaboration with the World Bank in 2007. The empirical results of this study increase the understanding that the relationship between export performance and innovation performance. I found that a positive relationship between export performance and innovation performance is more likely to occur if firms have technology adaption and decision making by MNCs. The embeddedness of MNCs in term of technology adaption and decision making authority to local subsidiary which has operated in Thailand refer to vision, technological proficiency and launch proficiency demonstrates that it support firm strategy and direction for productivity for exportation and also support of resources for development of product and process innovation. Technology adaption from MNC enhances the understanding of new firm resources and firms can utilize these resources to success in developing innovation.

Keywords: Technology Adaption, Decision Authority, Export Performance, Innovation Performance and Multinational Company

1. Introduction

Currently, there are many Multinational Corporations (MNCs) want to expanding a business outside of its national borders into different region and find new location to explore and enter to new market as a first mover. However, the activities in the new destination market will strongly affect the expanding business because internationalization faces important risks such as commercial, financial, logistics, etc. In transferring business operations to overseas subsidiaries, MNCs selected developing countries with good location as majority country. Because of potential market within the country, redundant natural resource and cheap labour cost its attractive MNCs to invest, set up, operate and move their production bases to local subsidiaries to compete in their business. Local subsidiaries must produce product with low cost and export to worldwide in larger productivity. However, driven by economic and technological forces MNCs have to set up local research and development (R&D) facilities. It has been suggested that the very existence of MNCs is based on this ability to transfer knowledge internally (Gupta & Govindarajan, 2000). However, knowledge which has driven success in the home market may not be effective in a new market, unless it can be applied in the new local context. The knowledge acquired within the foreign subsidiaries is therefore likely to play a role in building MNCs' competitive advantage across different markets (Qin et al., 2008).

Firstly, MNCs centralize their research and development facilities in their home countries and a few other industrially advanced countries. Indeed, the majority of developing countries do not have the technological infrastructure to make it economical for MNCs to set up local research and development (R&D) facilities. Nevertheless, developing countries continue to attract MNCs to set up foreign affiliate research to adaptation and technical support rather than innovation. On the other hand, there are some MNCs entering science and technology resources in some developing countries for their R&D activities and giving an endeavour to move their technological assets around the world. Vital knowledge is willingly transferred by MNCs to their subsidiaries in order to improve the performance of those subsidiaries. Since MNCs are setting and assessing science and technology to suit local condition, then they initiated innovation activities to local subsidiaries especially research and development (R&D) rather than adaptation technology or training of workforce to implement technology. If MNCs do not focus on innovation strategies, but concentrated on penetrating new markets, new distribution channels, increased productivity, price reductions, and improve production facilities. These strategies can help a company to compete during short period, but they can also be easily imitated by competitors (Bradley, 1991).

Therefore, MNCs have to prepare long-term strategies to create its sustainable competitive advantage. The sustainable competitive advantage for greater performance is a result of innovation and learning that are

difficult to imitate. In general, innovation is often linked to new technological development, new products and services as any new ideas initiated by a company for the purpose of its own business profits. Leonidou & Katsikeas (2010) suggested that each company has to have innovation to gain competitive advantage, survive and grow. Therefore, MNCs have to concentrate on innovation strategies for sustainable competitive advantages. However, the record of some of highly successful affiliates as Japanese company, demonstrates that some affiliates in distant locations are able to achieve highly efficient and flexible operating systems especially emerging country or developing country where have low-labour cost and high skilled labours. MNCs could transfer machines and tools very easily and they could transfer standardized technical skills to high skill labours in local subsidiaries. Therefore, technology adaption in local subsidiaries might be influenced on firm' innovation performance.

The aim of this study was to investigate the relationship between export performance and innovation performance of MNCs in Thailand and testing moderating effect of MNCs in term of technology adaption and decision authority. The answer of relationship between export performance and innovation performance is still relatively ambiguous. Especially, there are few studies that investigate the relationship among export performance, innovation performance and multinational corporation performance. Since there is very little empirical studies to what extent MNCs as moderator, it is interesting to survey such technology adaption and decision authority from MNCs applied to their local subsidiaries. This paper is divided into 5 sections. This section describes and discusses the background of the study topic and provides an introduction. Next, describes the theoretical background and hypotheses. In the section 3, presents the research methodology. Section 4 provides data analysis and findings. Hypotheses testing for this study is also revealed in this section. Finally, the last section presents the conclusion of this study.

2. Theoretical background and research hypotheses

2.1 Knowledge Transfer in the MNC

Argote et al. (2003) have categorized knowledge in terms of the results or the contextual properties involved in the management of that knowledge. Results can comprise knowledge creation, transfer and retention, and together they will guide the necessary activities; however, they are closely inter-related and thus cannot be separated and considered in isolation. In terms of context, knowledge management represents the relationships between units of knowledge, which in the situation which applies to this study, will depend upon the nature of the multinational company under assessment. In particular the important relationship is that between the subsidiary and the headquarters. The transfer of knowledge will then be defined as the manner in which knowledge possessed by one unit can have an influence upon the receiving unit, and thus changes the actions of the newly informed knowledge recipient (Argote & Ingram, 2000).

MNCs are perceived to be particularly powerful because of their domination of intellectual property rights and also because they are large employers who make a large contribution to the economic development of their host countries (Williams, 2009).

The knowledge of organizations starts off as the knowledge of the individuals within that organization, before it is shared more broadly (Rivera-Vazquez, 2009). However, in the context of MNCs, the parties which share knowledge are actually organizations themselves, thus adding an additional layer of complexity upon the process. It is necessary for entire divisions or departments to share knowledge, while the MNC cannot simply make the assumption that knowledge which exists in the headquarters or parent company will automatically be disseminated throughout the various subsidiaries unless this process is part of a deliberate strategy which overcomes the limitations of location and time (Fang et al., 2010). Furthermore, at an organizational level, knowledge must be distributed in such a manner as to take into account the nature of the local contexts of the recipients. Knowledge transfer must thus be accomplished at the levels of individuals, departments, and whole organizations. This process forms a critical aspect of knowledge transfer within MNCs.

Furthermore, the relationship between individual and institutional knowledge is important in the MNC context. MNCs build their knowledge networks from the constituent parts comprising the knowledge of individuals within the organization. However, it is sometimes believed that MNCs place excessive emphasis upon the tools used in knowledge transfer rather than the process itself (Burgess, 2005), since the aspect of human communication is the most significant factor in disseminating tacit knowledge. While tools and techniques are useful in managing the transfer of knowledge within MNCs, the human element is most important. However, human communication must also be supported by IT systems, especially in MNCs which operate in several countries on more than one continent. In this case, the physical tools to support knowledge transfer are vital.

When knowledge is transferred between an MNC and its local subsidiary, the knowledge flows arise in more than one direction. However, the transfer between the headquarters and the subsidiary is often unidirectional and often ineffective (Hutchins & Michailova, 2004), despite the potential for this to be the most advantageous form of knowledge transfer in the whole MNC system. It is often believed that it is the privilege of

the MNC to provide management and technology to the subsidiary rather than for this to be a two-way process (Hutchins & Michailova, 2004).

2.2 The Impact of MNC

Higher labour costs, labour shortages are the causes of higher production costs. Therefore, foreign companies expand their business to invest, set up, operate and move their production bases entry to developing countries. However, reducing production cost is not created sustainable competitive advantage. MNCs have to adapt and improve their strategy both create innovation product and process to suit in host market as well as overseas market. The simple question that previous research already studied is how the MNCs have been able to apply their expertise in new local business contexts within different cultures.

MNCs are widely perceived as highly influential because of their command of intellectual property rights, their role as major employers, and their activities in driving economics growth and development wherever they choose to be based (Williams 2009). They are able to achieve strong performance results by exploiting economies of scale and through their global reach which allows them to exploit any anomalies in international markets for capital, labour, or raw materials. However, increased levels of competition have caused MNCs to find new ways to derive competitive advantages, especially by getting products to market within a shorter timeframe, producing better products, responding to consumer trends and demands, and discovering new markets (Rolland and Kaminska-Labbe 2008).

To gain an insight of impacts of MNCs on local subsidiaries, the theoretical backgrounds of MNCs are necessary. Dunning (1996) was scholars who proposed theory of MNCs that explain why multinational cooperation exists. He developed the OLI model to explain why we have the cross boarder direct investment. To invest abroad, firms must simultaneously possess two advantages and one motive, which are the ownership advantage, location advantage, and internalization motive. The following advantages and motive explains why firms investing abroad instead of keeping the operation and penetrate the host market to exporting.

Ownership advantage: Firm must have a product, or proprietary asset, or manufacturing process which could not be accessible by local firms and it would give this type of firm with some market power or cost advantage over the host country's firm.

Location advantage: is the benefit which attracts the foreign firms to set the operation abroad rather than exporting, the rational of setting a new operation abroad must be outweighed the benefit from concentrating the operation in home and exporting to host country.

Internalization motive: is the condition which implies that the MNCs prefer to transfer the proprietary asset within the firms; direct investment rather licensing, to host countries. Obstacles to trade, transportation cost, non-tariff /tariff barriers exist in the imperfect market, hence, there is a transaction cost for MNCs to overcome this barrier to trades.

2.3 Why Thailand

There are several reasons for using data from Thailand to conduct research and examine the role of multinational enterprise on percentage of exporting and innovation performance.

Firstly, private investment levels have been rising sharply in Thailand. In 2013, Foreign Direct Investment (FDI) in Thailand increase 20.9 percent to 13 billion US dollar (419 billion Thai Baht) even though an uncertain political. Thailand has been a main recipient in South-East Asia. According to the "Asia-Pacific Trade and Investment Report 2014" published by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), it can be seen that the rising FDI occurred mainly as a result of the increase in mergers and acquisitions (M&A). In the year, Thailand was the second-largest target of M&A purchases in Southeast Asia, behind Singapore. In fact, between 2011 and 2013, ASEAN countries attracted 22.5 billion US dollar of FDI in the form of M&A from outside Asian countries. Japanese companies were mainly companies of intra-regional M&A-related FDI inflows, while enterprises from China including Hong Kong accounted for more than twenty percent. Singapore and Thailand were the leading performers in this particular regard, respectively.

Secondly, Thailand has experienced to transform economic structure from agrarian to manufacturing and fast growing economy towards a knowledge-based economy. Thailand is situated at the geographic center of ASEAN and is the best third country as an export base. Thailand is the world's 17th largest manufacturer, 30th largest exporters and the 2nd largest economy in ASEAN. (Pocket world in figure, 2012 edition). Furthermore, Thailand was ranked by UNCTAD as the 8th most attractive FDI destination in the world due to its capacity for supporting the ASEAN economy through its raw materials supply, its ease of parts procurement, and its strong infrastructural base which includes industrial parks with good access to air and sea ports. Regarding all above reason, Thailand economic were expanded by utilizing the existing infrastructure and being strategic location for ASEAN market network distribution.

Thirdly, currently, export-related activities have attracted a greater share of FDI. Especially concern

with labour incentive assembly activities in some industries such as electronics and garment have been attracted the most investments in Thailand to foreign investors through FDI. The economic transition from the export-oriented production or labour intensive to knowledge-based economy has led to the support of the Thai government in encouraging FDI because it is creating greater demand capabilities.

2.4 Research Hypotheses

In general, innovation is often linked to new technological development, new products and services as any new ideas initiated by a company for the purpose of its own business profits. Kotabe et al. (1990) suggested that each company has to have innovation to gain competitive advantage, survive and grow. Therefore, MNCs have to concentrate on innovation strategies for sustainable competitive advantages.

In term of export performance differentials; due to MNCs established global network, MNCs is perceived as an export catalyst for local subsidiaries exporting activities. The pervious researches shown that export performances of MNCs are depending on type of industries. The previous empirical finding had also suggested that export performance have positively related to productivity. Further review of literature, revealed that the tendency of firm exportation is related to the level of foreign participation. His work had studied to verify foreign companies has greater export performance and test whether export propensity of firms is influence my multinational status and he found that foreign companies have higher export performance than local companies.

After studying various researches on innovation, much of this literature focuses on innovation performance as a dependent variable and studies relationship between innovation and these independent variables such as knowledge management, research development, internationalization, organization structure, government financial incentive, etc. Furthermore, many scholars mentioned and emphasized that innovation as of important and valuable to study but unfortunate there are still very few studies of the relationship between export performance and innovation performance. In particular, MNCs in Thailand are few studies that had been done in the export performance and especially in term of innovation performance relationships. Therefore, this leads up to present the following hypothesis:

Hypothesis 1. For MNCs firms, Export performance is positively related to a firm's innovation performance

2.4.1 Moderating effect of Technology Adaption

This research study will focus primarily on the technical or structural aspect using technology adaption factors. Technology adaption should be strategically integrating local practices and modifying technology to suit with local requirements to increase larger productivity for exportation. Therefore, technology adaption should allow each plant to achieve higher standards. Where technology embeddedness occurs, the critical factor in improving operational processes in the subsidiary is the effectiveness of the network.

In addition, MNC technology adaption should be able to increase local market penetration and internationally Thus, MNC technology adaption is important because it supports the acquisition of new technological knowledge. If it is accepted that the development of technology is essential to drive economic growth, then it follows that subsidiaries will benefit from technological embeddedness in creating a competitive advantage in terms of productivity and the propensity of export. Also, technological embeddedness increases information exchange and thereby the level of innovation and consequently market performance. Our argument highlights the importance of the MNC technology adaption in supporting export performance. Accordingly, we suggest that the MNC technology adaption has a positive moderating effect on the relationship between export performance and innovation performance. Therefore, this leads up to present the following hypothesis:

Hypothesis 2. For MNCs firms, Technology adaption positively moderates the effect of the export performance on innovation performance.

2.4.2 Moderating effect of Decision authority

The main difference between a subsidiary and an independent company is the relationship between the subsidiary and its MNC. The subsidiary is not competing in the market as an independent business with its own objectives, but must instead serve the general aims of the parent company. Their performance can be evaluated in terms of the extent to which they can meet those aims. However, the local subsidiary may also have its own objectives which are not wholly aligned with those of the MNC, so to a certain extent they may have a degree of independence. In the domestic market, the subsidiary can act independently in terms of its relationships with customers or suppliers. However, the bigger strategic decisions taken by the MNC will also have a strong influence on activities in terms of such major aspects as resource allocation, production locations, and investments.

Therefore, the organizational performance of any subsidiary will be determined by the extent to which the subsidiary is favoured by the strategic decisions taken by the MNC in terms of resource allocation and investment. The aims of the MNCs in setting up subsidiaries, and the aims of the subsidiaries themselves may not fully coincide. It is therefore important for the subsidiary to exert some influence upon the internal political activities of the MNC if it is to secure the resources which will help it to achieve its own objectives. The ability

to influence the decision making authority can also have an effect upon the firm’s management, since subsidiaries often have the goal of performing well both in the domestic market, and also within the political corporate aspects of the internal structure of the MNC, in order to achieve both profits domestically, and strategic influence politically. For investment decision and strategic decision in local subsidiaries also includes in three types; (1) local subsidiaries make all investment decision independently, (2) parent companies or headquarter make all investment decision and (3) local subsidiaries and parent companies or headquarter are make all decision jointly.

Moreover, if it is accepted that investment decisions have a critical effect upon the performance of a local subsidiary, thereby influencing both the local and international levels of competitive advantage, it can therefore be concluded that the decision making approach of the MNC will directly affect the performance and ultimate success or failure of the subsidiaries in term of productivity and the propensity of export. Our argument highlights the importance of the decision making authority in supporting export performance. Accordingly, we suggest that the MNC decision authority has a positive moderating effect on the relationship between export performance and innovation performance. Therefore, this leads up to present the following hypothesis:

Hypothesis 3. For MNCs firms, Decision authority positively moderates the effect of the export performance on innovation performance.

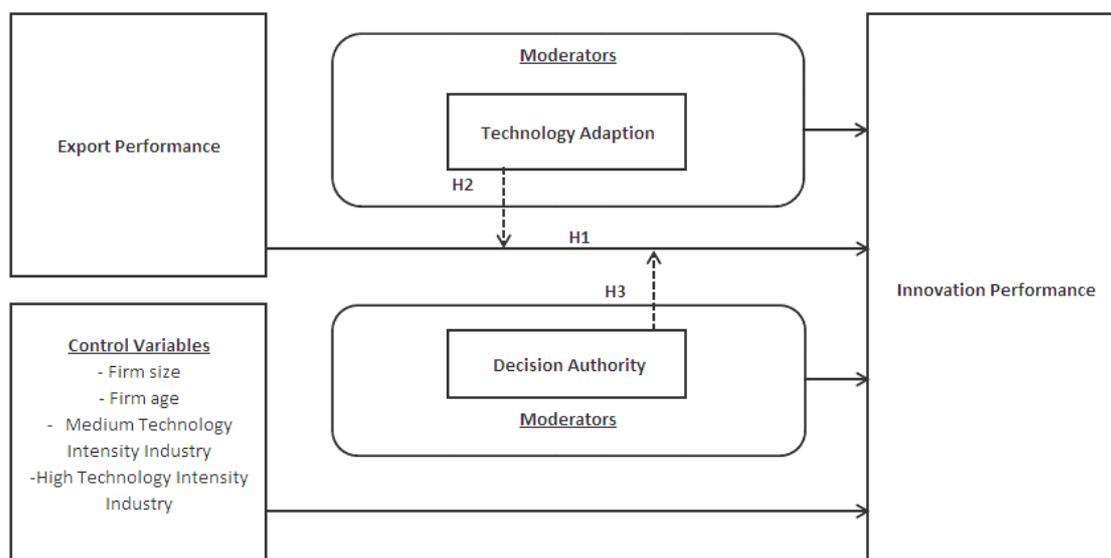


Figure 1. Proposed framework

3. Research Methodology

3.1 Samples and sources

This study utilises company level data from Thailand, obtained from the “Productivity and Investment Climate Survey” (PICS), carried out by the Thai government in collaboration with the World Bank. The survey examined 154 Multinational companies in Thailand and was performed in 2007. The participating companies were drawn from the following industry sectors: clothing and textiles, furniture products, food processing, auto parts, electronics, machinery and equipment, plastics and rubber. The selected industries comprise over fifty percent of manufacturing exports and include companies from all six regions of Thailand. The population was defined to include only those firms that were legally registered, using the support of the National Statistical Agency and data from the World Bank. This information was then applied in selecting the sample group of companies from small, medium and large-sized categories by random sampling methods for evaluation.

We used the STATA 12 program to run the regression results and analyse the results from those sample data. The correlation and regression analysis were analysed to measure the results of the relationship between export performance and innovation performance number and testing moderating effect of MNCs.

3.2 Variable description

3.2.1 Dependent variable

According to the purpose of this study, our dependent variable is *innovation performance*. Based on the previous studies, this study was measured innovation performance by three items what adapted from Chen et al. (2011) and Zhang and Li (2010), three items are follow; number of new product; the ratio of new products sales to total sales and the speed of new product development.

3.2.2 Independent variables

According to the purpose of this study, our dependent variable is *Export performance*. This variable can be measured by the share of export sales over total sales (OECD, 2005).

3.2.3 Control variables

Firstly, we include *firm size* in this study regarding previous studies investigating the determinant factors affecting firm performance (Hsu, Lien et al. 2015), measured by using the natural logarithm for the number of total employees. Secondly, *firm age* is a control variable measured by logarithm of firm age. Besides, I used Industry based on the Oslo Manual's guidelines (OECD, 1992) to classify manufacturing industries by technological intensity to calculate this measure. The first dummy variable includes *medium technological intensity* such as chemicals, machinery and equipment, motor vehicles, electrical equipment, medical and dental instruments and supplies, plastic products, non-metallic mineral products and basic metals. The second dummy variable includes *high technological intensity industries* such as pharmaceuticals, computer, electronic and optical product, air and spacecraft and related machinery. Firm of other industries, for instance food product, beverages, textiles, wood and product of wood, printing and paper product, furniture, were set as the benchmark group as low technological intensity industry. I include these four control variables in this model to measure the effect of export performance on innovation performance.

3.2.4 Moderating variables

Technology adaption: Technology is an indicator of the extent to which MNCs use process or product technology in a local market. To measure this, a dummy variable can be used, denoted by a value of 1 when a foreign company adapts its technology to the local context, or 0 when it does not.

Decision Authority: This attribute can be measured through a dummy variable which is set at 1 if the headquarters or parent company takes all decisions regarding investment or if the decisions are taken jointly between the parent and the subsidiary. If the decisions are taken solely by the subsidiary, the dummy variable value can be set at 0.

4. Data Analysis and results

According to, I have mentioned above that I collected each variable in 2007 based on "Productivity and Investment Climate Survey" (PICS), carried out by the Thai government in collaboration with the World Bank, here I can see that I have total 154 observations meaning that multinational companies in Thailand. In this summary table, there are mean value, standard deviation value, and variable correlations.

The summary table 1 present means, standard value of independent variable and control variables of innovation performance as dependent variable, export performance as independent variable, control variables and also include moderating variables (technology adaption and decision authority).

Table 1. Means, standard deviations and variables correlations

Variables	Mean	Std.dev	1	2	3	4	5	6	7	8
1. Innovation performance	2.454	1.004	1							
2. Export performance	43.154	39.721	0.086	1						
3. Firm size	2.482	0.529	0.161**	0.308***	1					
4. Firm age	1.087	0.262	0.086	0.279***	0.387***	1				
5. Medium technology intensity	0.565	0.497	-0.033	-0.289***	-0.214***	-0.113	1			
6. High technology intensity	0.143	0.351	0.019	0.108	0.208***	-0.003	-0.465***	1		
7. Technology adaption	0.565	0.497	0.006	0.033	0.051	-0.121	0.023	0.171**	1	
8. Decision authority	0.727	0.447	0.059	-0.068	-0.009	0.045	0.021	-0.042	-0.302***	1

Significance level: * p<0.1, **p<0.05, ***p<0.01

4.1 Regression model analysis

In this part, the empirical study from regression analysis model are shown, as the objectives of this research proposal, in order to study the importance of exportation factors and control variables as firm size, firm age and industry intensity to innovation performance. The 154 sample data in years 2007 had been collected by The Foundation for the Thailand Productivity institute (FTPI) and World Bank, then using the STATA 12 program to run the regression result and analyze the results from those sample data.

The empirical study from regression analysis model is shown in Table 2 as the objectives of this study are to study the significance and importance of independent and control variables and also include moderating variables (technology adaption and decision authority).

Table 2. Regression analysis result

Variables	Model 1	Model 2	Model 3	Model 4
Export performance	0.001	0.001	0.001	0.001
Firm size	0.275	0.279	0.289	0.28
Firm age	0.075	0.082	0.06	0.076
Medium-technology intensity	0.009	0.002	0.011	-0.004
High-technology intensity	0.039	0.065	-0.036	0.076
Technology adaption		0.167		0.156
Decision authority			0.152	0.184
Export performance × Technology adaption		0.064		0.078
Export performance × Decision authority			0.026	0.005
Constant(β_0)	1.650***	1.704***	1.496***	1.557***
F-Value	0.85	0.67	0.69	0.61
ModelR ²	0.028	0.031	0.032	0.037

Significance level: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Data from the 154 samples taken by The Foundation for the Thailand Productivity institute (FTPI) and the World Bank in 2007 were collected. Subsequently, the STATA 12 program was used to run the regression results and analyse the results from those sample data. Table 2 shows the results in 4 Models, with the results of Multinational companies in Thailand from World Bank data (154 samples).

4.2 Discussion

The results show in Model 1 to Model 4. The results in Model 1 show that the export performance is positively related to innovation performance although the coefficient value almost zero (Model 1: $\beta = 0.001$, $p > 0.1$). However, from result I accepted Hypothesis 1. The export performance is positively related to innovation performance.

The coefficient between technology adaption and innovation performance showed in Model 2 and Model 4 is all positive relationship (Model 2: $\beta = 0.167$, $p > 0.1$; Model 4: $\beta = 0.156$, $p > 0.1$) accord with the coefficient value of interaction term between export performance and technology adaption also positive. I can interpret that the interaction term between export performance and technology adaption is positive relationship (Model 2: $\beta = 0.064$, $p > 0.1$; Model 4: $\beta = 0.078$, $p > 0.1$). According to Hypothesis 2 indicated that technology adaption positively moderates the effect of the export performance on innovation performance thus Hypothesis 2 receives support.

The coefficient between decision authority and innovation performance showed in Model 3 and Model 4 is all positive relationship (Model 3: $\beta = 0.152$, $p > 0.1$; Model 4: $\beta = 0.184$, $p > 0.1$) accord with the coefficient value of interaction term between export performance and decision authority also positive value. I can interpret that the interaction term between export performance and decision authority is positive relationship (Model 3: $\beta = 0.026$, $p > 0.1$; Model 4: $\beta = 0.005$, $p > 0.1$). According to Hypothesis 3 indicated that decision authority positively moderates the effect of the export performance on innovation performance thus Hypothesis 3 receives support.

5. Conclusion

Exportation plays an important role for increasing innovation performance. Firms that have clear vision will help R&D and manufacturing teams to know the way to apply technology and know-how within firms to develop product for exportation. Vision provides the guideline for staffs who are involved with the development product innovation or focusing on productivity for increasing export performance. The embeddedness of MNCs in term of technology adaption and provide decision authority to local subsidiary which has operated in Thailand refer to vision, technological proficiency and launch proficiency demonstrates that it support firm strategy and direction for productivity for exportation and also support of resources for development of product and process innovation. Our research suggests that the relationship between export performance and innovation performance can be positive when the MNCs firms longevity of businesses in specific market. Technology adaption from MNC enhances the understanding of new firm resources and firms can utilize these resources to success in developing innovation.

The objective of this study is to develop the understanding for how the MNCs knowledge is implemented in the local subsidiaries. Technology adaption and decision authority of MNC are the method that MNCs use for transfer technological capability and adapt business strategy via decision making activities. Furthermore, I would like to improve understanding about the actual practice of innovation performance at firm level in MNCs in Thailand from our result show that MNCs firm in high-technology intensity firm have a greater innovation performance than other types of technology intensity. The next objective of the study is to investigate

the relationship between export performance and innovation performance implementation in MNCs in Thailand. Our finding shows that the export performance is positive relationship with innovation performance when MNC applied technology to local subsidiaries (technology adaption). My research also suggests that export performance can be good for innovation performance when MNCs headquarters takes all decisions regarding investment or if the decisions are taken jointly between the MNCs headquarters and the local subsidiary. The findings of this study provide a support resource-based view theory (RBV) that internal resources are required for increase exportation and developing innovation. The important resources for increase productivity and exportation are vision, technological proficiency and launch proficiency.

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