THE FUTURE DIRECTION OF APPAREL AND TEXTILE INDUSTRY : A COMPETITIVENESS

ANALYSIS OF THAILAND'S APPAREL AND TEXTILE INDUSTRY USING KOREAN'S

APPAREL AND TEXTILE INDUSTRY AS BENCHMARK

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ทิศทางในอนาคตของอุตสาหกรรมเครื่องนุ่งห่มและสิ่งทอ : การวิเคราะห์ความสามารถในการแข่งขัน
กรณีศึกษาของอุตสาหกรรมเครื่องนุ่งห่มและสิ่งทอในประเทศไทยโดยใช้เกณฑ์มาตรฐานของ
อุตสาหกรรมเครื่องนุ่งห่มและสิ่งทอในประเทศเกาหลี

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วุฒธินันท์ อ๊อกกังวาล : ทิศทางในอนาคตของอุตสาหกรรมเครื่องนุ่งห่มและสิ่งทอ : การวิเคราะห์ความสามารถในการแข่งขันกรณีศึกษาของอุตสาหกรรมเครื่องนุ่งห่มและสิ่งทอในประเทศไทยโดยใช้เกณฑ์มาตรฐานของอุตสาหกรรมเครื่องนุ่งห่มและสิ่งทอในประเทศเกาหลี (THE FUTURE DIRECTION OF APPAREL AND TEXTILE INDUSTRY : A COMPETITIVENESS ANALYSIS OF THAILAND'S APPAREL AND TEXTILE INDUSTRY USING KOREAN'S APPAREL AND TEXTILE INDUSTRY AS BENCHMARK) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: รศ. ดร. พุทธกาล รัชธร, 72 หน้า.

อุตสาหกรรมเครื่องนุ่งห่มและสิ่งทอของประเทศไทยถือเป็นอุตสาหกรรมที่มีความสำคัญต่อเศรษฐกิจไทย ทว่าในปัจจุบันอุตสาหกรรมเครื่องนุ่งห่มและสิ่งทอกำลังเผชิญกับปัญหาปัจจัยด้านอัตราค่าแรงที่สูงขึ้นจนส่งผลให้ความสามารถในแข่งขันลดลง เพื่อหาแนวทางในการคงไว้ซึ่งความสามารถในการแข่งขันในตลาดโลก การศึกษานี้จึงได้พยายามที่จะหาความสามารถในการแข่งขัน (Competitiveness) ของไทยในหลายๆมุมมองผ่านโมเดลเจเนอเรลไลซ์ ดับเบิ้ล ไดม่อนด์ (Generalized Double Diamond Model) โดยใช้ข้อมูลของประเทศเกาหลีเป็นเกณฑ์มาตรฐาน ทั้งนี้เนื่องจากทั้งสองประเทศมีหลักการพัฒนาอุตสาหกรรมที่นำมาจากประเทศญี่ปุ่นเหมือนกัน ข้อมูลทุติยภูมิกับ การสัมภาษณ์เชิงลึกเป็นกระบวนการศึกษาของวิทยานิพนธ์นี้ ผลที่ได้นั้นประเทศไทยนั้นมีจุดแข็งในเรื่องของปัจจัยผู้บริโภคและโครงสร้างการแข่งขันในตลาดภายในประเทศ แต่อุตสาหรรมนี้ยังขาดการลงทุนในการวิจัยอีกทั้งยี่ห้อของไทยยังไม่เป็นที่รู้จักแพร่หลายมากในตลาดโลกมากนัก จุดที่น่าสนใจคือการลงทุนโดยตรงจากต่างประเทศที่อาจเป็นตัวแปรสำคัญในการช่วยพัฒนาอุตสาหกรรม

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WUTTINUN OGGUNGWAN: THE FUTURE DIRECTION OF APPAREL AND TEXTILE INDUSTRY : A COMPETITIVENESS   ANALYSIS OF THAILAND'S APPAREL AND TEXTILE INDUSTRY USING KOREAN'S APPAREL AND TEXTILE INDUSTRY AS BENCHMARK. ADVISOR: ASSOC. PROF. BUDDHAGARN RUTCHATORN, Ph.D., 72 pp.

Apparel and textile industry of Thailand is one of industries in which contributing economic growth towards Thai economy over decades; however, this industry tends to loss its competitiveness in global stage due to a relatively high labor cost. In order to find the remedy, this paper is trying to find competitiveness of Thai apparel and textile industry though various dimensions. South Korea is chosen to be benchmark as these two countries have been sharing same development model following by Japan. This study adopts generalized double diamond model in order to find competitive advantages of the industry domestically and internationally. Secondary data is gathered and analyzed via generalized double diamond model. In-depth interviews are also held to find an insight data. The outcome turns out that Thai apparel industry has strength in its domestic conditions and domestic competitive structure. However, R&D expenditure is still relatively low which leads to a lag of new products that can be a competitive advantage of the nation. Nonetheless, internationalization is also a big problem in which Thai private apparel brands are not that well recognized in the global stage. Although FDI flows can be a good factor to make the whole industry becomes better.

Field of Study: Korean Studies   Student's Signature ....

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จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

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CHAPTER I

INTRODUCTION

1.1 Background

An apparel industry is a foundation of every economic development. It tends to be one of the top labor-intensive industries from which many countries build their pompous prosperity. However, with a rapid growth of the world economy, this labor-intensive industry tends to lose it competitiveness overtime due to a higher cost of labor. South Korea was also experiencing this phenomenon during 1970's and 1980's. According to Korea Federation of Textile Industry, South Korea was the fifth largest exporter of apparel-related and textile goods in the world during that time (Jin Byoungho 2006). Moreover, Korea was also facing an unbelievably rapid economic growth within a short time, which led to a cultivation of new sources of competitive factors instead of cheap labor (Jin Byoungho 2006). In Thailand, the apparel and textile industry has also been an important industry that contributes to the nation's overall economic growth. According to Thailand Textile Institute, the industry accounted for 3.4 percent of GDP in 2008. The industry was quite mature as measures were taken to improve the competitiveness by adjusting appropriate factors i.e. machinery and labor input. However, these two factors may be insufficient

to maintain its competitive advantage overtime as one of the main threats comes from cheaper labor cost in the neighboring countries, which incentivizes multinational companies to establish their factories there and leave higher-cost countries like Thailand behind. Small to medium firms are those who will substantially receive an impact from global sourcing. In order to survive the dilemma, both Korea and Thailand need to know what their competitiveness is and be able to set their future directions.

1.2 Research Question

This study tried to identify the sources of competitiveness in the apparel and textile industry in Thailand using South Korea as a benchmark. The study concentrated on the private national brands of small to medium size companies, which have gained more attention from both domestic and international markets overtime. These two countries are diverse in their environmental conditions; hence the policy implications for both should be different (Jin Byoungho 2006). However, both of them are now facing the same problem of how to handle a rapid growth of other economies, especially China, a country that has substantially affected both Korea and Thailand. The study focuses on the apparel and textile industry of Thailand and Korea as both countries share the same challenge in the world economy and need to be able to identify their global competitiveness.

1.3 Research Methodology

In order to answer the research question, Porter's diamond model (Porter 1998) was adopted as a theoretical framework for this study. Numerical data from both Thai and Korean sources were used to construct the model, which would be used as a competitive index to explore how each country's competitiveness was shaped. In addition, the study also conducted in-depth interviews with semi-structured outline with key informants in the apparel and textile industry in both countries. This qualitative information would be used to see whether or not it supported the findings from the numerical data analysis.

1.4 Research Objective

The main purpose of this study was to find global competitiveness of Thailand in fashion apparel and textile industry using South Korean as a benchmark. This will be beneficial for the apparel and textile firms in determining which direction they should be heading to and for the government in making a right decision for policy implication.

The paper consists of five sections. The first section is introduction. The second is literature review and theoretical review. The third is data and empirical analysis of the variables and the fourth is the results. The last section is the conclusions and further discussion.

CHAPTER II

LITERATURE REVIEWS

2.1 Overview of Apparel Industry in South Korea and Thailand

The apparel and textile industry has played a vital role in the development and economic success of both South Korea and Thailand. According to the study of Jin and Hwy-Chang (2006) which analyzed the competitiveness of the industry in Korea using Porter's diamond model, Korea's apparel and textile industry has competitive advantage in many aspects. Even though Korea has a relatively high labor cost, which can be easily overcome by global sourcing, the most important factor for the better condition of the industry is skilled human resources. Jin and Hwy-Chang (2006) suggested that the only thing to be improved is internationalization seeing that if the industry can secure the global market, it will create more dynamic and drive the industry to become even more prosper. Internationalization is also a topic which Nobukaza (2002) mentioned when he found "pronto moda", a fast fashion, within the cluster area of Dongdaemun, Seoul. The advantage of being a cluster of apparel-related shops is that they can produce clothing within a short time as they cooperate with each other for supplies. This point is very good for the demand conditions as they can promptly manufacturing products and able to export them internationally. Moreover, they can improve their

clothes shop into their Own Brand Manufacturing (OBM) in which they can put more competitive advantage towards themselves (Nobukaza 2002). Moreover, Korean designers are now gaining spotlight on the global stage, too. There have been many showcases featuring Korean designers including Younghee Lee, Hanii Yoon, etc.

The apparel industry itself has been developing simultaneously with advanced technology, which is the strength of the nation. Michael Porter (1998), who is the inventor of Porter's diamond model, mentioned that Korean technology was leapfrogging as one of the most advanced in the world. According to the World Economic Forum's Competiveness Index Annual Report in 2013, Exhibit 1 portrays the comparative competitiveness prism between Korea performance and the global average. Korea's innovation, macroeconomic environment, infrastructure, market size, and technological readiness are relatively higher than the global average, especially the infrastructure and macroeconomic environment which rank within top 10 of all nations. This shows how strong the foundation of their economy is. Another point of strength also comes from innovation. Innovation is an important key for globalization since it adds value to the products and makes them niche in a way that they can stand against global sourcing challenges. The Korean apparel industry seems to follow this phenomenon; however, investments for innovation tend to be less than expected due to its relatively small industry and a large land size of the country (Jin Byoungho 2006).
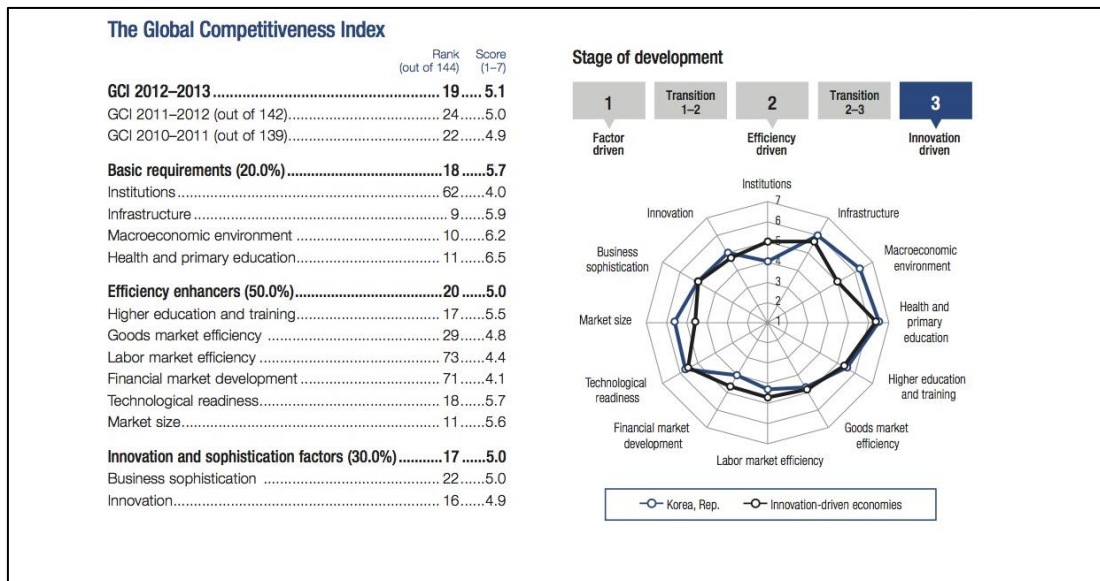
Exhibit 1 The Global Competitiveness Index of South Korea in 2013 (World Economic Forum, 2012)

In addition, Gereffi (1999) stated that Korea's apparel industry in its overall picture was still lacking in internationalization because of insufficient export quotas. Moreover, the low wage in Southeast Asia and South Asia is also a cause that pulls foreign investments away from Korea (Gereffi 1999). This leads to a struggle of Korea's domestic brands to become an OBM and to be able to use this threat as an opportunity. Also, since Southeast Asia and Korea is relatively close, freight costs are thus low and it is easier to monitor the production management process such as whether they are doing the work right or whether or not they abide by the patent.

The apparel and textile industry in Thailand, on the other hand, has different

strengths and weaknesses compared to Korea. Although Thailand's overall economy condition is far behind Korea, it has some interesting points in the development of the industry. According to the Office of the National Economic and Social Development Board (NESDB) Report in 2005, apparel and textile is a growing industry where the strength comes from the uniqueness of fabric. The distinct fabric that they mentioned refers to the traditional Thai silk integrated with traditional patterns from different local areas. This brings out high-quality silk with unique patterns that can be found only in Thailand and the fabric itself is also easy to handle for daily life use. However, because of the lack of funding from the government to motivate local people to develop their fabric to be even better, the industry tends to be idle (NESDB, 2005).

Regarding the global sourcing challenges which Korea has been faced with, Thailand, however, seems to be on the other side of Korea in that the industry had been enjoying cheap labor and low-priced property during 1990's (Watcharavesringkarn 2010) contributing to one of the highest growths for Thailand's economy (Supachalasai 1998). The specialized apparel products of Thailand cover a wide range from children's wear to sportswear. Exhibit 2 shows the role of textile and apparel in the Thai economy from 2003 to 2008 (ASEAN Quality Textile & Apparel Report, 2010). According to the data, the industry has been performing quite well as there is a positive trend of trade volume; however, the proportion compared to GDP may show a diminishing trend overtime.

	2003	2004	2005	2006r	2007r	2008p
GDP	137,390	164,332	183,563	200,926	265,893	290,509
GDP of Manufacturing Sector	47,866	56,611	63,698	70,341	94,579	101,461
GDP Textile & Apparel Subsector	6,374	7,451	7,786	8,022	9,577	9,931
Textile	2,638	3,085	3,191	3,239	3,782	3,872
Apparel	3,735	4,366	4,595	4,782	5,795	6,069

Source: Office of the National Economic and Social Development Board

Exhibit 2 The Role of Apparel and Textile Industry in Thai Economy from 2003-2008

(Source: Office of the National Economic and Social Development Board, 2009)

According to WEF Competitiveness Analysis in 2013 as shown in Exhibit 3, Thailand has competitive advantages comparable to the global scale. Although the stage of development of Korea, which is an innovation- driven state, may be different from Thailand, which is efficiency-driven, the index already fixed this problem by comparing the average of the different stages. According to the index, market size is the most significant prism Thailand has. It means that this country has a lot of domestic demand, which is a primary source of firms' competition (Porter 1990). Moreover, infrastructure and macroeconomic environment are also potential keys for Thailand's capacity to fight against fierce rivals (Porter 1990). These factor conditions, when merged with each other, lead to the strength of macroeconomic stability which can have positive effects on the growth of apparel and textile industry.
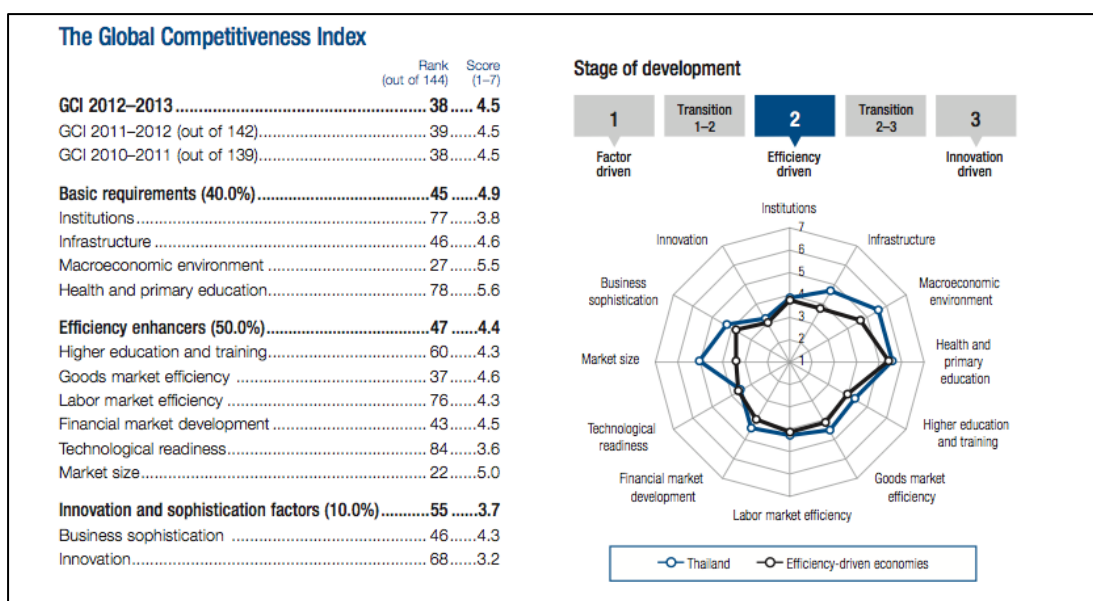
Exhibit 3 The Global Competitiveness Index of Thailand in 2013 (World Economic Forum, 2012)

Additionally, the upcoming ASEAN economy also brings a lot of great opportunities to Thailand given its geographic location along with experienced entrepreneurs (Thailand Textile Institute and South East Asia Textile Business Review, 2009). Thailand has a good geographical location being in the center of Southeast Asia and can become the hub of the ASEAN service sector. Moreover, tariff elimination within ASEAN nations can help Thailand attract foreign investors to relocate their vertical manufacturing chains to the country. Compared to the neighboring countries, entrepreneurs in Thailand have an advantage of having a long-accumulated experience that promotes efficiency of the industry. It is also suggested by Watcharavesringkan et al. (2010) that competitive rivalry and capable businesses

can help Thailand's apparel industry in developing their resources as sustainable competitive advantages.

2.2 Porter's Diamond Model and the Extension

Michael Porter's Competitive Advantage of the Nation (1990) is the main theory which this study concentrates on. He argues that trade-involved theories have only focused on costs and overlooked "a comprehensive understanding of competition that contains segmented markets, differentiated products, the technological differences and economies of scale" (Bakan 2012). This theory is significant in that Porter aims to define the phenomena where firms from specific nations can implement better strategies than others competing in specific sectors (Watcharavesringkarn 2010). After he conducted research in ten countries (USA, Germany, Denmark, South Korea, Britain, Italy, Sweden, Switzerland, Japan, and Singapore) involving different economic characteristics of 100 sectors for four years, Porter (1990) developed the diamond model for the competitive advantage of the nations against the world's competition. There are four determinants that will affect the competitive advantage within one nation. Figure1 displays Porter's diamond model and the four determinants including (I) factor conditions, (II) demand conditions, (III) related and supporting industries, and (IV) firm strategy, structure and rivalry. It also consists of two exogenous variables, which are (V) government and (VI) chance. Because Porter generalized his concept through a macro scale, in order to as

apply the theory to a specific industry i.e. apparel industry, this study needs to

interpret competitive factors to suit the selected context (Jin Byoungho 2006). The

competitive advantages of Porter (1990) are as follows;

Figure 1. Diamond Model
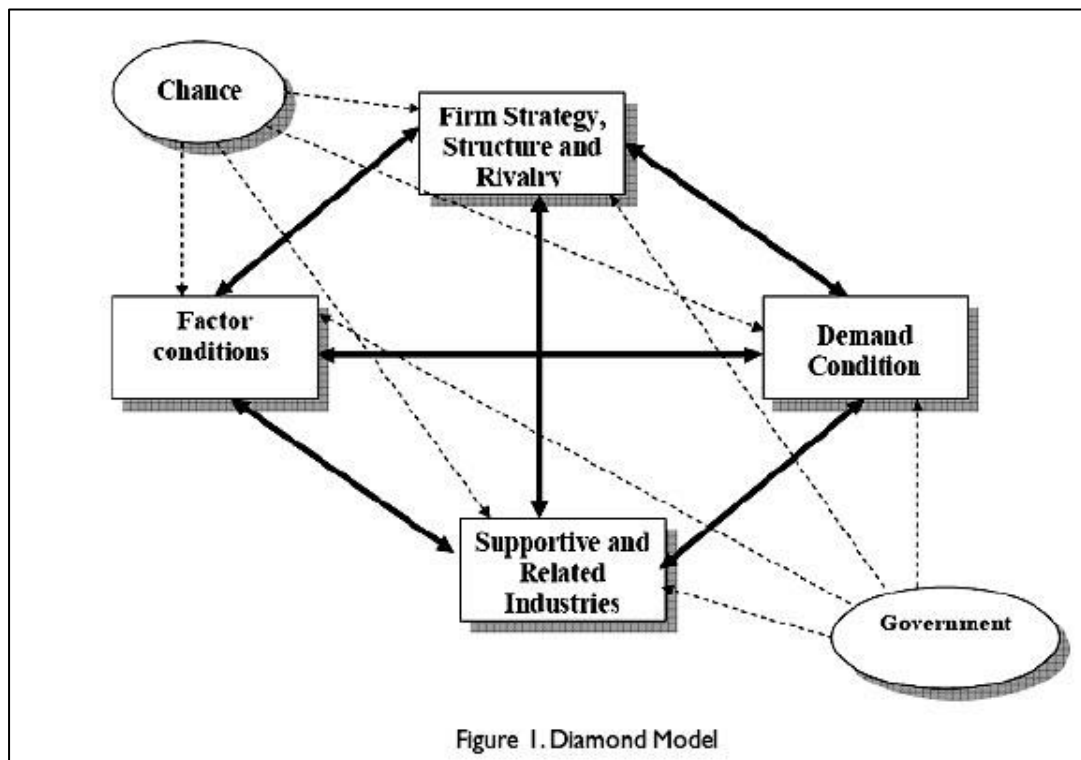
Figure 1 Porter's Diamond Model (Jin Byoungho 2006)

(I) Factor Conditions

Porter (1990) said that it is a nation's position in factors of production. These

factors include human resources, physical resources, knowledge resources, capital

resources, and infrastructure. These factors for a specific industry are also categorized

into two main factors; basic factors and advanced factor. A basic factor is passively

inherited, such as natural resources, climate, unskilled and semiskilled labor, while

an advanced factor is something that needs to be developed through education e.g. skilled human resources, creative designers, etc. He suggests that the key of competitive advantage comes from both basic and advanced factors but an advanced one is important as it creates unique competitive advantage over its rivals. Jin and Hwy-Chang (2006) also believe that advanced and specialized factors conditions are "gold" because basic factors such as cheap labor are unable to compete due to global sourcing.

(II) Demand Conditions

Demand conditions are the nature of home-market demand for the industry's product or service (Porter 1990). Porter noticed that the more domestic demands, the better the competitive advantage. Consumers having sophisticated and high standards drive firms to compete with each other, creating the highest level of efficiency which finally turns out to be an innovation. Porter (1990) demonstrates that an unusual demand is based upon social norms, distribution channels, and the nation's passion. One good example is the outstanding passion for high quality apparel products among the Italians.

(III) Related and Supporting Industries

According to Porter (1990), related and supporting industries refer to the presence or absence in the nation of supplier industries and other related industries that are internationally competitive. The assumption is that when competition in related and supporting industries is high, it will drive the specific industry to be more competitive as well. The means of competition include innovation, upgrading, information flow, and shared technology development (Porter 1998). In other words, related and supporting industries are a vertical line of production within a specific industry with an upgrade of downstream industries (raw material industry such as leather factories, cotton farm, etc.) It also expands the innovation to the upper chain. As a result, synergy occurs and competitiveness is even better.

(IV) Firm Strategy, Structure, and Rivalry

The fourth determinant is firm strategy, structure, and rivalry. Porter (1990) explains that this determinant is the national conditions governing how companies are created, organized, and managed, as well as the nature of domestic rivalry. He states that the success of a nation relies on "favorable management practices and organizational modes suited to the industries' source of competitive advantage" (Porter 1990). Rivalry within the domestic market is also a good motivation for each firm to create new innovation to compete with their rivals. Subsequently, it will

affect competitive advantage on the international stage in a positive way. Besides, some firms may be faced with a lot of pressure from domestic competition and, as a result, have to adjust themselves by moving towards the international level.

The Exogenous Determinants- (V) Government and (VI) Chance

A government's major role is to serve as a catalyst and a challenger that encourages companies to move to higher levels of competitive performance (Porter 1990). This role of government can either have a positive or negative influence on the determinants. For example, if the government opens a free trade zone to other nations, it might boost up revenues given that people are encouraged to use more local brands. On the other hand, it might have a negative impact on the industry as the free trade agreement may penetrate the domestic market with lower price products leading to a lack of revenues which will indirectly affect research and development (R&D) of the firms. Another external factor is chance. Chance events just happen; it may be related to unpredictable things such as technological discontinuities and predictable things like political uncertainty. Figure2 illustrates how these four determinants and two exogenous variables are interacting with each other.
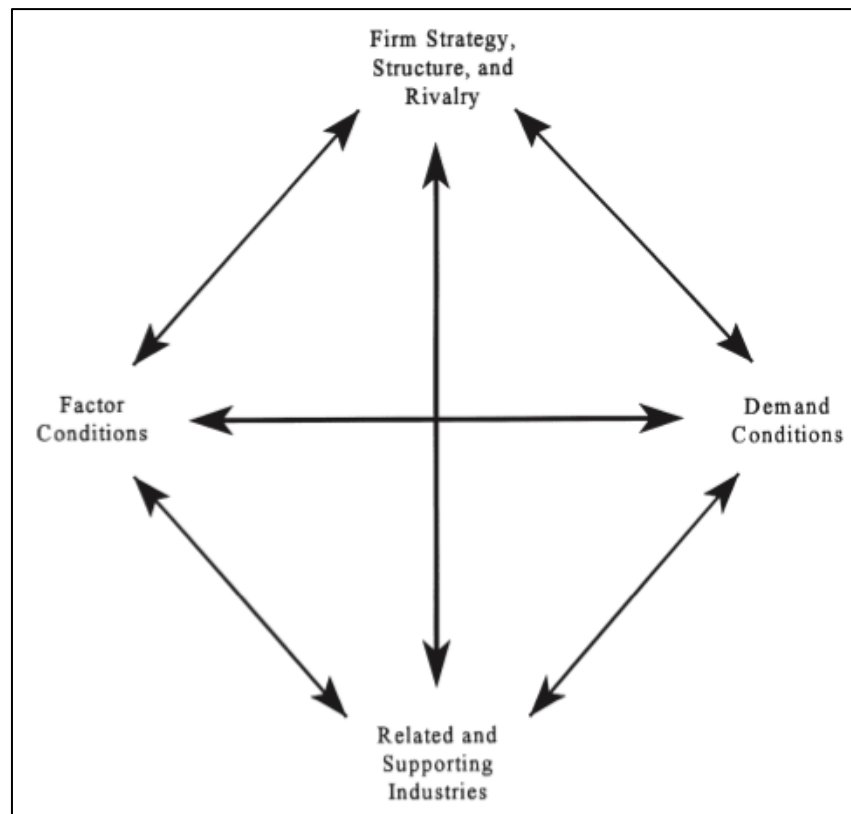
Figure 2 Relationship between each Determinant in Porter's Diamond Model (Son Mi Young 2013)

Porter's diamond model is a well-known competitiveness analysis for scholars. According to Moon et al. (1998), however, there is some ambiguity in the sign of relationships and how accurate the model is. The reason behind comes from the failure of capturing the effect of multinational activities. (Moon H. Chang 1998) Therefore, Professor Moon of Seoul National University has extended the original Porter's diamond model into the generalized double diamond model (Moon H. Chang 1995) to cover the multinational activity within the model. In the generalized double model, Moon et al. (1995) suggests that the nation's competitiveness has two diamonds, one is domestic diamond model and another is international diamond

model that is related to its specific firms. Figure 3 illustrates the concept of generalized double model; the inner line represents a domestic diamond whereas the outer line represents an international diamond. The international diamond is fixed while the domestic one is varied by its economic size and its competitiveness. The dotted line is the nation's competitiveness which is a product of both inner and outer lines. Moreover, the area between the inner and outer lines shows multinational activities such as foreign direct investment (FDI) (Moon H. Chang 1998).
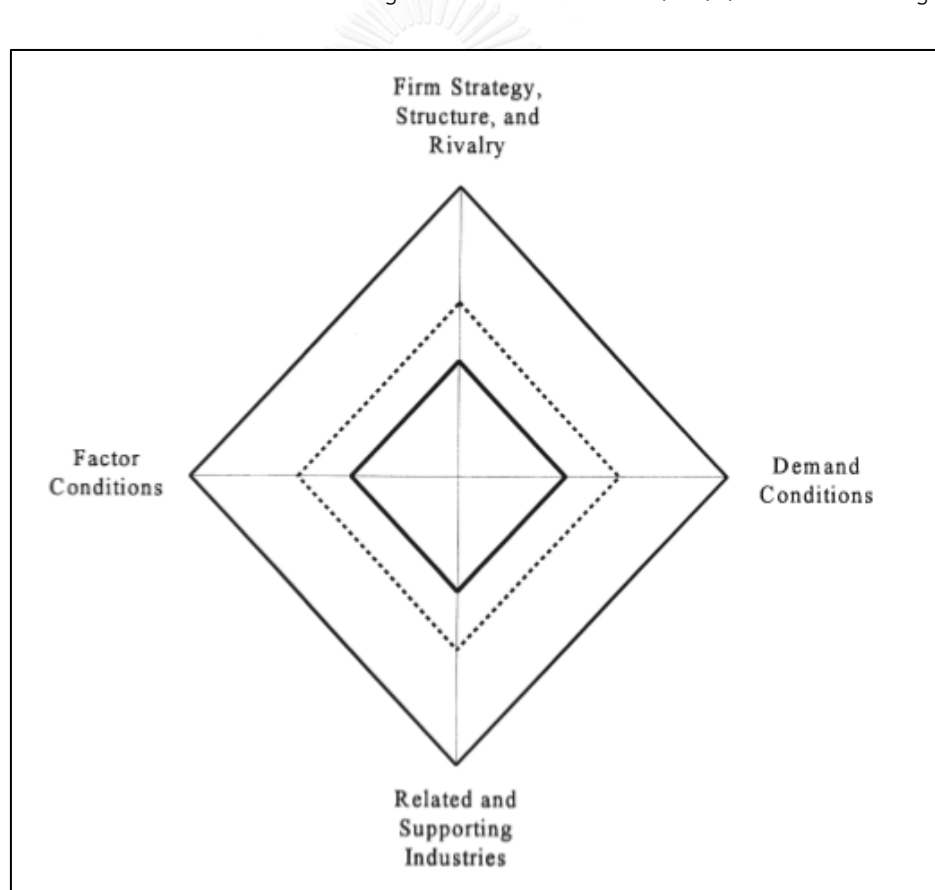
Figure 3 Generalized Double Diamond Model (Son Mi Young 2013)

2.3 The Appropriate Model for this Study

Because there are two related models that can be used in this study, the question comes up as whether a Porter's diamond model or a generalized double diamond should be more appropriate and not spurious to this study. According to Son and Yokoyama (2013), a double diamond model has three major extensions which make the model more informative. First, the model readily includes multinational activities. Second, the model can be operationalized with the competitiveness paradigm with different size, shape, and strategies. Third, the model is integrated with a government variable which is an important factor. As Sardy and Fetcherin (2009) states, it is important to take into account both domestic and international determinants because of globalization. Porter's diamond model is a single model which lacks sufficient information of multinational corporations (Sardy 2009). In other words, the model only looks at how the domestic performs while there are also other outside factors that affect the competitiveness. Besides, Porter's home-based diamond model does not fit well with small open economies (Son Mi Young 2013) because of the fact that small open economies rely heavily on both foreign markets and foreign policies. Thus, when data are applied to Porter's diamond model, results can be miscalculated. Thailand is considered as a small open economy according to World Bank. The GDP (PPP) per capita of Thailand in 2013 was 14,394 international dollars or ranked at the 76th of the world. The average GDP (PPP) per capita of the world in 2013 was at 14,397 international dollars. From

this information, it can be said that Thailand still has relatively small power compared to other major counties in the world. Therefore, Porter's home-based model may not be as applicable as generalized double diamond model in this selected context. As for South Korea, however, the case is somewhat different from Thailand. According to World Bank, the GDP (PPP) per capita of South Korea in 2013 was 33,140 international dollars or ranked in the 30th of the world. Their number was higher than the average and it shows that South Korea is a large open economy. Thus, both types of models can be used in this case to examine the determinants. However, since the objective of this study is to explore the apparel and textile industry of both countries simultaneously and separately, generalized double diamond model is thus the best option.
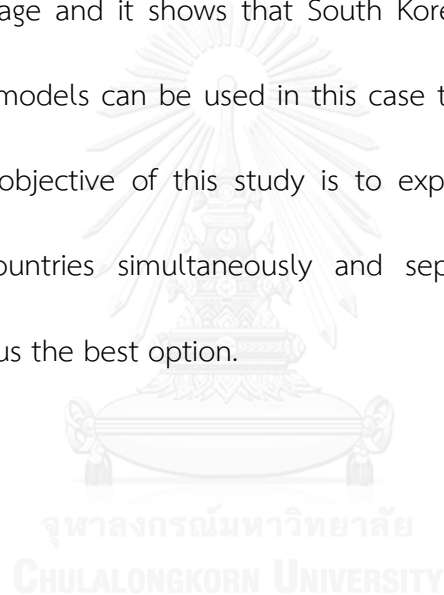
CHAPTER III

METHODOLOGY AND DATA

This study adopts a case study method. A qualitative approach with which the researcher explores each case using secondary data and in-depth data collection from multiple sources (Creswell 2012) is applied in this research. A generalized double diamond model is the main theory used to examine the outcome of each country on how well the apparel and textile industry is performing. There are two main parts in this thesis's data collecting process: competency index and semi-structured outline interview.

3.1 Diamond Competency Index

First, this paper conducted a competency diamond index of Thailand using South Korea as benchmark parameters. Then, secondary data was gathered. This paper also adopted variables selection from Son and Yokoyama (2013) who studied about the competiveness of Korean and Japanese fashion industry using generalized double model. In their study, Son and Yokoyama (2013) selected 31 sub-variables as determinants of the model. Table 2 displays all of those determinants in the four categories as proposed in Porter's diamond model. The determinant data were collected through research of literature in order to analyze the competitiveness of

the apparel and textile industry. Secondary data was obtained from sources from South Korea and Thailand as listed in Table 2. Table 2 displays the four main determinants i.e. factor conditions, demand conditions, related and supporting industries, and firm strategy, structure and rivalry. Each of them is categorized either as domestic or international according to the double diamond model theory. The explanation for each selected sub-determinant is as follows.

Variables		Proxy	Data Source	
			South Korea	Thailand
Factor Conditions				
Domestic				
Basic	Scale	Number of worker and laborers in the clothing and textile industry, 2013	KOFOTI	Thai Textile Organization
		Increase in rate of production (%), 2013	KOFOTI	Thai Textile Organization
Advanced		Researchers in R&D, 2013		World Bank
	R&D	R&D Expenditure (% of GDP), 2013		World Bank
		Royalty and license fees, receipts (Bop, current US$), 2013		World Bank
	Technical Power	Productivity of Professionals		KIET
		Design power in clothing & textiles (Italy, France = 100)		KIET
International				
Basic	Overseas Sale	Increase in rate of apparel and textile exports (%), 2013	KOFOTI	Thai Textile Organization
Advanced		Total amount of outgoing FDI clothing and textile enterprises (Outward FDI) (millions$), 2012	OECD	BOI
	Overseas Investment	Total amount of incoming FDI clothing and textile enterprises (Inward FDI) (millions$), 2012	OECD	BOI
Demand Conditions				
Domestic				
Size	Market Scale	Total population (thousand people), 2013		IMF
		Gross Domestic Product (GDP) (millions$), 2013		IMF
		Employment rate (100- employment rate) (%), 2013		IMF
Sophistication	Consumer Sohphistication	Rate of expenditure on clothing & textiles out of gross income (%), 2012	KIET	Thai Textile Organization
		Demanding needs of consumers		KIET
International				
Size	Overseas Market Scale	Oversea market share (%)	KOFOTI	Thai Textile Organization
Sophistication	Consumer Sohphistication	Preference for local brands in oversea market (Italy,France=100)		KIET
Related and Supporting Industries Conditions				
Domestic				
Infrastructure	Communication	Secure internet servers (per 1 milliom people), 2013		World Bank
		Fixed broadband interent subscribers (per 100 people), 2013		World Bank
	Transportation	Roads, Paved (% of total roads), 2013		World Bank
Related Industry	Related Industries	Gross output of textiles (thousand tons), 2013	KOFOTI	Thai Textile Organization
		Educational facility related to clothing and textile (per 1 million people), 2013		
International				
Infrastructure	Transportation	Airplane, registered carrier departures worldwide, 2013		World Bank
	Communication	Container port traffic (TEU: 20 foot equicalent units), 2013		World Bank
		Internet Users (per 100 people), 2013		World Bank
Related Industry	Related Industries	Amount of clothing & textile exports ($), 2013		UNcomtrade
		Number of publications related to clothing and textiles among overseas journals, 1996-2015		Journal of Fashion Marketing and Management
				International Journal of Clothing Science and Technology
Firm Strategy, Structure, and Rivalry				
Domestic				
Rivalry	Market Competition	Competition intensity among domestic companies		KIET
Management	Agility	QR System (Italy, France=100)		KIET
Efficiency	High Design Quality	The rate of added value in textile industry (%)		KIET
International				
Rivalry	Market Competition	Market share of major global markets (country/world, %)		WTO
Management	Global Networking	Internationalization of enterprises		KIET
Efficiency	Global Challenge	Global Business leadership of CEOs		KIET
Sources Link:				
KOFOTI: http://www.kofoti.or.kr/textile/present.asp/	OECD: https://data.oecd.org/			
Thai Textile Organization: http://www.thaitextile.org/	IMF: https://www.imf.org/external/data.htm			
World Bank: http://data.worldbank.org/	Uncomtrade: http://comtrade.un.org/data/			
KIET: https://www.kiet.re.kr/kiet_web/main/	WTO: https://wto.org/statistics			

Table 1 Four Factor Conditions of Diamond Model and Proxy Variables, Measurement

Variables		Proxy	Data Source	
			South Korea	Thailand
Factor Conditions				
Domestic				
Basic	Scale	Number of worker and laborers in the clothing and textile industry, 2013	KOFOTI	Thai Textile Organization
		Increase in rate of production (%), 2013	KOFOTI	Thai Textile Organization
Advanced	R&D	Researchers in R&D, 2013		World Bank
		R&D Expenditure (% of GDP), 2013		World Bank
		Royalty and license fees, receipts (Bop, current US$), 2013		World Bank
	Technical Power	Productivity of Professionals		KIET
		Design power in clothing & textiles (Italy, France = 100)		KIET
International				
Basic	Overseas Sale	Increase in rate of apparel and textile exports (%), 2013	KOFOTI	Thai Textile Organization
Advanced	Overseas Investment	Total amount of outgoing FDI clothing and textile enterprises (Outward FDI) (millions$), 2012	OECD	BOI
		Total amount of incoming FDI clothing and textile enterprises (Inward FDI) (millions$), 2012	OECD	BOI

Table1-1: Factor Conditions Proxies

(I) Factor Conditions

Factor conditions are divided into two main categories: basic factors and advanced factors. Fashion industry has a strong tie with R&D and sophisticated forms of competitive advantage (Son Mi Young 2013). Advanced factors in apparel industry refer to human resources such as designers, fabric inventors, etc. It is also involved with production and processing technology.

International factor conditions can be determined by FDI from more advanced countries which brings advanced technology to improve domestic conditions via R&D from those particular firms. This factor is important to South Korea since they have been relocating their labor-intensive jobs to lower wage countries such as Southeast Asian countries. At the same time, Thailand's apparel industry also gets advanced knowledge from more advanced countries, which leads to more

productivity and efficiency in the domestic market. Apparently, FDI inflow and

outflow play a vital role in the development of national competitive advantage (Jin

Byoungho 2006).

Demand Conditions				
Domestic				
Size	Market Scale	Total population (thousand people), 2013		IMF
		Gross Domestic Product (GDP) (millions$), 2013		IMF
		Employment rate (100- employment rate) (%), 2013		IMF
Sophistication	Consumer Sohphistication	Rate of expenditure on clothing & textiles out of gross income (%), 2012	KIET	Thai Textile Organization
		Demanding needs of consumers		KIET
International				
Size	Overseas Market Scale	Oversea market share (%)	KOFOTI	Thai Textile Organization
Sophistication	Consumer Sohphistication	Preference for local brands in oversea market (Italy,France=100)		KIET

Table1-2: Demand Condition Proxies

(II) Demand Conditions

Demand conditions involve home-market demand's size and its sophistication

(Porter 1990). According to Son and Yokoyama (2013), domestic demanding buyers

are important in the fashion industry because when domestic consumers seek

creative designs, services, and brands, it creates a stronger national competitiveness.

This will result in buying behavior: a rate of expenditure on apparel and textile out of

gross income. The size of domestic demand is also taken into account as it

determines economic scale and learning speed.

For the international perspective, both South Korea and Thailand still have

relatively small domestic markets, causing apparel and textile firms to try to export

their goods in order to secure its economy of scale (Son Mi Young 2013). As a result,

international market share along with preference for local brands in overseas market

are representing "the complexity of international demand" (Liu Day-Yang 2009).

Related and Supporting Industries Conditions				
Domestic				
Infrastructure	Communication	Secure internet servers (per 1 milliom people), 2013	World Bank	
		Fixed broadband interent subscribers (per 100 people), 2013	World Bank	
	Transportation	Roads, Paved (% of total roads), 2013	World Bank	
Related Industry	Related Industries	Gross output of textiles (thousand tons), 2013	KOFOTI	Thai Textile Organization
		Educational facility related to clothing and textile (per 1 million people), 2013		
International				
Infrastructure	Transportation	Airplane, registered carrier departures worldwide, 2013	World Bank	
	Communication	Container port traffic (TEU: 20 foot equicalent units), 2013	World Bank	
		Internet Users (per 100 people), 2013	World Bank	
Related Industry	Related Industries	Amount of clothing & textile exports ($), 2013	UNcomtrade	
		Number of publications related to clothing and textiles among overseas journals, 1996-2015	Journal of Fashion Marketing and Management	
			national Journal of Clothing Science and Techn	

Table1-3: Related and Supporting Industries Conditions Proxies

(III) Related and Supporting Industries

Related and supporting industries refer to the presence or absence in the nation of supplier industries and related industries that are internationally competitive (Porter 1990). Upstream and downstream industries are crucial as they create synergy through innovation, upgrading, information flow, and shared technology development. According to Son and Yokoyama (2013), one of the basic needs in global competitiveness is "efficient strategies of transportation and communication". Infrastructures such as paved roads determine how well transportation of raw materials and products is done within the domestic market. Moreover, communication is also a vital key for successful global chain management (Jin Byoungho 2006). Communication with downstream industries within the domestic market can be advantageous for both parties as they can exchange their innovation and information flow, making the industry become more efficient.

Additionally, education and knowledge industry is also important for building a competitive advantage (Kim Mi-Jung 2006).

For the international perspective, determinants are divided into three main categories i.e. transportation, communication, and related industries. One good example of an apparel brand with good chain management strategies is Uniqlo, a fast-growing, successful Japanese fashion company. Uniqlo's primary corncern regarding supply chain coordination is about how to get efficient manufacturing capacity from its outsourced partners when necessary (Kim 2013). This is a very good example of how other related industries play a role in one specific industry and bring about competitive advantage. In the global point of view, small open economies like South Korea and Thailand need more synergy with and expansion into related and supporting international industries (Liu Day-Yang 2009). Transportation and communication in terms of connection and negotiation with oversea markets are also inevitable.

Firm Strategy, Structure, and Rivalry			
Domestic			
Rivalry	Market Competition	Competition intensity among domestic companies	KIET
Management	Agility	QR System (Italy, France=100)	KIET
Efficiency	High Design Quality	The rate of added value in textile industry (%)	KIET
International			
Rivalry	Market Competition	Market share of major global markets (country/world, %)	WTO
Management	Global Networking	Internationalization of enterprises	KIET
Efficiency	Global Challenge	Global Business leadership of CEOs	KIET

Table1-4: Firm, Strategy, and Rivalry Proxies

(IV) Firm Strategy, Structure, and Rivalry

Firm strategy, structure, and rivalry refers to the national conditions governing how companies are created, organized, and managed, and also the nature of domestic rivalry (Porter 1990). This determinant focuses on how firms are created, organized, and managed within their internal relationship and with their competitors. The strategies vary through their structure and rivalry of each country (Liu Day-Yang 2009).

In home-based market viewpoint of apparel and textile industry, high quality design is a good determinant as it directly creates value-added for the products which can become a competitive advantage. "Pronto Moda" or fast fashion is also another key determinant for apparel and textile firms, which should be able to produce more creative products to meet the domestic demand within time constraints. According to Son and Yokoyama (2013), the fashion industry is characterized by extensive and diverse sources of uncertainty due to fluctuating demands, seasonal changes, and variation in style preferences, in response to market

instability, thus apparel firms must react rapidly.

For the international perspective, the fashion industry has certain definite features like long global commodity chain which involves many global economic agents, from raw material suppliers and manufacturing factories to transportation and warehouses (Son and Yokoyama, 2013). Thus, it is crucial to prolong the relationship between each agent efficiently because this will lead to a success in both home-based and overseas markets (Shafaei 2009).

3.2 In-Depth Interview

In order to strengthen the previous findings, in-depth interviews with semi-structured outline were developed. Key informants were involved, including professors currently teaching at the Faculty of Textile Industry, Thai fashion clothing related persons from emerging private brands and international private brands, clothing factory owners, and government officers. Table 1 shows the key informants' information and abbreviation, which will be referred to later on in this paper. The in-depth interviews were held from 15 April 2015 to 25 June 2015 by telephone. Sampling decisions were made with regard to interviewers, settings, and processes. For a qualitative approach, probability sampling is rarely employed; therefore, deliberate and/or purposive sampling was used (Punch 1998). The interviews were designed to capture informants' perspectives and experiences in their own words

(Taylor 1998). Thus, informants' beliefs, attitudes, and reactions relative to competitive advantage in the Thai apparel industry were explored.

Type of Organization	Description of Interviewees	Location	Title of the interviewees	Gender	Pseudo nyms
Private Sector	Emerging Fashion Apparel Brand	Bangkok	Brand Owner	Female	A
Private Sector	International Fashion Apparel Brand	Bangkok	Brand Owner	Male	B
Private Sector	Emerging Fashion Apparel Brand / Ex-Designer in International Brand	Bangkok	Brand Owner / Designers	Female	C
Private Sector	Clothing Factory	Samuth-prakarn	Factory Owner	Female	D
Education Sector	Fashion Design Major Student	Bangkok	Graduated	Male	E
Education Sector	Fashion Design Major Student	Nonthaburi	Graduated	Female	F
Education Sector	Lecturer at RMUTK	Bangkok	Associate Professor	Female	G
Government Sector	National Broadcasting and Telecommunication Commission	Bangkok	Assistant Secretary of the Board Committee	Female	H

Table 2 In-depth Interviews Information

CHAPTER IV

RESULTS

4.1 Empirical Results of the Diamond Test

In order to calculate the competitiveness index, Son and Yokoyama (2013) suggested three steps with a reference to previous studies. Table 3 shows raw data of each variable used in this study. The competitiveness index was derived from data calculation in both domestic and international aspects. As shown in Table 3, there are four main determinants, each of which consists of sub-variables (proxy variables) with a maximum score of 100.

The three main processes are as follows: First, two sets of raw data were compared and the one having a greater value would be given the maximum score (100). The variable having a lower value would be calculated in ratio i.e. the lower value divided by the higher value and multiplied by 100. For example, the number of workers and laborers in clothing and textile industry proxy of Korea in 2013 is 301,188 people while Thailand is 572,000 people. In this proxy, Thailand will get a score of 100 scores and Korea will get a score calculated by 301,188 divided by 572,000 then multiplied by 100, which is equal to 52.66.

Second, for the determinants with more than one proxy, impartial weights would be given to each proxy variable (Son Mi Young 2013). For example, there are

five sub-variables in the domestic related and supporting industries conditions in Table5. To calculate this determinant for the domestic diamond, the scores of all proxy variables of either country would be summed and averaged. Thus, the output score of South Korea (100, 100, 80.51, 94.85, 100) would be 95.07 while Thailand (0.90, 19.35, 100, 100, 40) would be 52.05.

Third, the international competitiveness index was separately analyzed from the domestic diamond. The calculation method was the same as the domestic diamond. This study also analyzed an overall diamond by calculating data from both domestic diamond's and international diamond's proxies using the same calculation method. Table 4 shows the competitiveness index of the diamonds. The numbers are the results of the three-process-analysis, which are plotted into a diamond-shape competitiveness model.

Variables		Proxy	Data Source	
			South Korea	Thailand
Factor Conditions				
Domestic				
Basic	Scale	Number of worker and laborers in the clothing and textile industry, 2013	301,188	572,000
		Increase in rate of production (%), 2013	7.9	3.3
Advanced	R&D	Researchers in R&D (per million people), 2013	5841.49	315.53
		R&D Expenditure (% of GDP), 2013	3.74	0.21
		Royalty and license fees, receipts (Bop, current US$), 2013	4,232,100,000	222,091,617
	Technical Power	Productivity of Professionals, 2007	10.9	7
		Design power in clothing & textiles (Italy, France = 100), 2011	60	40
International				
Basic	Overseas Sale	Increase in rate of apparel and textile exports (%), 2013	2.3	3.6
Advanced	Overseas Investment	Total amount of outgoing FDI clothing and textile enterprises (Outward FDI) (millions$), 2012	184.5	457.6
		Total amount of incoming FDI clothing and textile enterprises (Inward FDI) (millions$), 2012	278.6	1110.4
Demand Conditions				
Domestic				
Size	Market Scale	Total population (thousand people), 2013	50,220	67,010
		Gross Domestic Product (GDP) (millions$), 2013	1,304,554	387,252
		Employment rate (100- unemployment rate) (%), 2013	96.9	99.3
Sophistication	Consumer Sohphistication	Rate of expenditure on clothing & textiles out of gross income (%), 2012	4	5.38
		Demanding needs of consumers	11.2	14.2
International				
Size	Overseas Market Scale	Oversea market share (%), 2010	2	0.9
Sophistication	Consumer Sohphistication	Preference for local brands in oversea market (Italy,France=100), 2011	50	30
Related and Supporting Industries Conditions				
Domestic				
Infrastructure	Communication	Secure internet servers (per 1 milliom people), 2013	1995	18
		Fixed broadband interent subscribers (per 100 people), 2013	38.04	7.36
	Transportation	Roads, Paved (% of total roads), 2013	79.3	98.5
Related Industry	Related Industries	Gross output of textiles (thousand tons), 2013	2,744	2,893
		Educational facility related to clothing and textile (per 1 million people), 2013	2.5	1
International				
Infrastructure	Transportation	Airplane, registered carrier departures worldwide, 2013	288,104	285,416
	Communication	Container port traffic (TEU: 20 foot equicalent units), 2013	22,582,700	7,702,476
		Internet Users (per 100 people), 2013	84.8	28.9
Related Industry	Related Industries	Amount of clothing & textile exports ($), 2013	932,474,459	1,875,478,492
		Number of publications related to clothing and textiles among overseas journals, 1996-2015	124	41
Firm Strategy, Structure, and Rivalry				
Domestic				
Rivalry	Market Competition	Competition intensity among domestic companies, 2007	10.5	7.6
Management	Agility	QR System (Italy, France=100), 2011	60	60
Efficiency		The rate of added value in textile industry (%), 2008	24.2	30.7
International				
Rivalry	Market Competition	Market share of major global markets (country/world, %), 2013	3.1	0.8
Management	Global Networking	Internationalization of enterprises	10.4	7.4
Efficiency	Global Challenge	Global Business leadership of CEOs, 2007	10.9	7.7

Table 3 Descriptive Data of Four Factor Conditions of Diamond Model and Proxy Variables, Measurement

	Korea	Thailand
Factor Conditions		
Domestic	93.24	41.27
International	43.10	100.00
Domestic & International	68.17	70.64
Demand Conditions		
Domestic	85.15	85.94
International	100.00	52.50
Domestic & International	92.57	69.22
Related and Supporting Industries Condition		
Domestic	95.07	52.05
International	89.94	60.06
Domestic & International	92.51	56.06
Firm Strategy, Structure, and Rivalry		
Domestic	92.94	90.79
International	100.00	55.87
Domestic & International	96.47	73.33

Table 4 Competitiveness Index of Diamond Model

Variables		Proxy	Outcome (Max=100)	
			South Korea	Thailand
Factor Conditions				
Domestic				
Basic	Scale	Number of worker and laborers in the clothing and textile industry, 2013	52.66	100.00
		Increase in rate of production (%), 2013	100.00	41.77
Advanced	R&D	Researchers in R&D, 2013	100.00	5.40
		R&D Expenditure (% of GDP), 2013	100.00	5.61
		Royalty and license fees, receipts (Bop, current US$), 2013	100.00	5.25
	Technical Power	Productivity of Professionals	100.00	64.22
		Design power in clothing & textiles (Italy, France = 100)	100.00	66.67
International				
Basic	Overseas Sale	Increase in rate of apparel and textile exports (%), 2013	63.89	100.00
Advanced	Overseas Investment	Total amount of outgoing FDI clothing and textile enterprises (Outward FDI) (millions$), 2012	40.32	100.00
		Total amount of incoming FDI clothing and textile enterprises (Inward FDI) (millions$), 2012	25.09	100.00
			43.10	100.00
Demand Conditions				
Domestic				
Size	Market Scale	Total population (thousand people), 2013	74.94	100.00
		Gross Domestic Product (GDP) (millions$), 2013	100.00	29.68
		Employment rate (100- employment rate) (%), 2013	97.58	100.00
Sophistication	Consumer Sohphistication	Rate of expenditure on clothing & textiles out of gross income (%), 2012	74.35	100.00
		Demanding needs of consumers	78.87	100.00
International				
Size	Overseas Market Scale	Oversea market share (%)	100.00	45.00
Sophistication	Consumer Sohphistication	Preference for local brands in oversea market (Italy,France=100)	100.00	60.00
			100.00	52.50
Related and Supporting Industries Conditions				
Domestic				
Infrastructure	Communication	Secure internet servers (per 1 milliom people), 2013	100.00	0.90
		Fixed broadband interent subscribers (per 100 people), 2013	100.00	19.35
	Transportation	Roads, Paved (% of total roads), 2013	80.51	100.00
Related Industry	Related Industries	Gross output of textiles (thousand tons), 2013	94.85	100.00
		Educational facility related to clothing and textile (per 1 million people), 2013	100.00	40.00
International				
Infrastructure	Transportation	Airplane, registered carrier departures worldwide, 2013	100.00	99.07
	Communication	Container port traffic (TEU: 20 foot equicalent units), 2013	100.00	34.11
		Internet Users (per 100 people), 2013	100.00	34.08
Related Industry	Related Industries	Amount of clothing & textile exports ($), 2013	49.72	100.00
		Number of publications related to clothing and textiles among overseas journals, 1996-2015	100.00	33.06
			89.94	60.06
Firm Strategy, Structure, and Rivalry				
Domestic				
Rivalry	Market Competition	Competition intensity among domestic companies	100.00	72.38
Management	Agility	QR System (Italy, France=100)	100.00	100.00
Efficiency	High Design Quality	The rate of added value in textile industry (%)	78.83	100.00
International				
Rivalry	Market Competition	Market share of major global markets (country/world, %)	100.00	25.81
Management	Global Networking	Internationalization of enterprises	100.00	71.15
Efficiency	Global Challenge	Global Business leadership of CEOs	100.00	70.64

Table 5 Score of Proxies

4.2 Domestic Variables of the Diamond Model
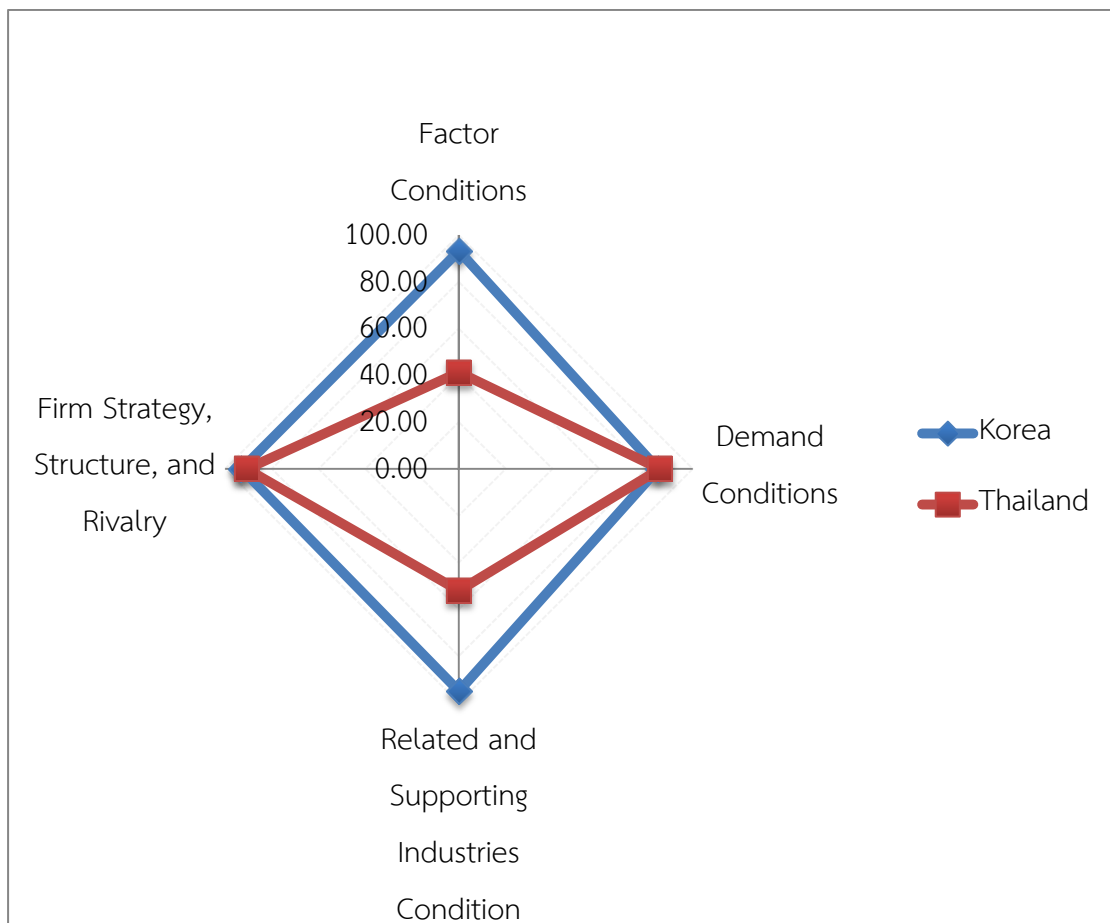
Figure 4 The Domestic Diamond

Figure 4 illustrates the outcome of the diamond competitiveness index of South Korea and Thailand domestically. One interesting aspect falls on the developmental stage of South Korea and Thailand. According to Son and Yokoyama (2013) who analyzed competitiveness of apparel and textile industry of Japan and Korea, the outcome of their domestic diamonds illustrated that Japan had saturated fashion industry characteristics of developed countries whereas Korea showed fashion industry characteristics of the New Industry Countries (NICs). In this study

which analyzed competitiveness of the industry between Thailand and South Korea, a difference in characteristics of each nation's developmental stage was also found. This finding complies to Akamatsu's flying geese model (1968) where a shift between an advanced country and a less developed country occurred. In terms of development stage, Thailand is categorized as the third tier while Japan the first tier and Korea (NICs) the second tier. The findings of this study agree with the above statement as the diamonds show some catch up dimensions and some lacking dimensions. Results from both competitiveness index and in-depth interviews were also used to explore the strengths and weaknesses of the diamond.

4.2.1 Strength in "Demand Condition"; Market Scales Sophistication Factors

The index figures show that there are two conditions in which Thailand has a competitive advantage which is at the same level as Korea. The two conditions are demand conditions and firm strategy, structure, and rivalry. These two indicators reflect how well domestic consumers respond to apparel and textile goods. Domestic demand conditions consist of two main parameters including market scales and sophistication. Thailand's market scales are relatively large with the total population of approximately 67 million people (IMF, 2013). The domestic demand has been continually increasing overtime, with which the industry has to try to keep pace (Watcharavesringkarn 2010). The more consumers, the more demand of apparel goods, which finally leads to more national competitiveness. This is why brand

owners and designers need to develop their patterns and design in order to satisfy consumers' needs. As a result, competition within the domestic market will be a good driving force for the apparel industry to become even better. Another parameter in the domestic demand conditions is sophistication of consumers. Sophistication is important for the industry as it indicates how the Thai consumers choose what they want to buy. According to an in-depth interview with an emerging private brand owner A, doing female fashion-clothing, Thai people have a sense of fashion which is strongly influenced by the global trend.

"Most of the collections we have made would follow the current trend. Customers really love to come to the store where they can touch the fabric and are able to try on. [...] Even though they might like the patterns, they sometimes ask where the fabric came from."

With reference to the data from the Thai Textile Organization Annual Report 2012, Thai people spent 5.38 percent of their gross income to purchase apparel goods whereas South Koreans spent 4 percent of their gross income (KIET, 2012). This demonstrates that Thai consumers spend quite a lot on apparel goods. Moreover, according to the Korean Institute for Industrial Economics and Trade's (KIET) report on apparel and textile industry within Asian countries, a survey on demanding needs for consumers to buy fashion apparel goods was conducted and it was found that demanding needs for Thai consumers were roughly the same as Korean consumers. Korean fashion consumers are extremely demanding. Due to their Confucian heritage,

they are sensitive about their appearance (Jin Byoungho 2006). This is a very interesting point as Thai fashion consumers also have a high standard for their sense of fashion. Thai consumers look for a variety of colors, patterns, and textures when purchasing garments (Watcharavesringkarn 2010). They are now focusing more on what types of fabric the brand uses, a phenomenon observed in both emerging private brands and international brands. Another interviewee, B, who is the owner of men's international clothing brand, demonstrated how he chose materials for his collections:

"Most of the time, I will gather information by asking frequent customers who are mostly Thai prior to the new collection's launch. It is unbelievable that Thai consumers are asking for some fabrics that I haven't seen in Thai market before such as pure polyester fabric, plastic fabric, etc. [...] I believe that this kind of fabric preference comes from global luxury brand like H&M, Alexander Wang, Louis Vuitton, and others as seen in the previous collections."

4.2.2 Strength in "Firm Strategy, Structure, and Rivalry Conditions"; Relationship between Firms and the Quick Response System

Firm strategy, structure, and rivalry is another dimension in the domestic diamond model in which Thailand is relatively competitive compared to South Korea. There are three main criteria within the domestic's firm strategy, structure, and rivalry dimension: rivalry, management, and efficiency. In rivalry part we used

competition intensity among domestic market data from KIET (2007) as proxy and it showed that Thailand has relatively lower domestic competition (7.6) than South Korea (10.5). However, the efficiency and management factors were at the same level with South Korea. According to Christopher and Towill (2002), apparel firms were required to concentrate on strategies that ensured high quality design and agility. Agility in our analysis is represented by quick response system (QR system). According to KIET report, Thailand has the same quick response rate as South Korea, showing the strength of apparel firms both in Thailand and South Korea in their responsiveness to pronto moda or fast fashion. Interviewee C, an ex-designer for female international clothing brand, said in the in-depth interview:

"My work besides being a fashion designer at that time was marketing. Every week I had to go to the store at Siam Center to see which clothes ran out of stocks. Also, I had to contact the factory to track manufacturing process. [...] Simultaneously, I had to design a new collection that suited trend. It was an exhausting job but I could see how every store managed to quickly respond to the market trend."

Another evidence showing a strong tie between a manufacturing owner and a brand owner comes from interviewee D, who is a clothing factory owner in Samuthprakarn province. As Jin and Hwy-Chang (2006) said, it is crucial to have a strong network in order to get agility in making clothes.

"I know my clients personally. Most of them are either my relatives or friends. I think it is easier to conduct a business with people I have known for a long time because sometimes we have to negotiate about costs and other stuff. Sometimes, they may ask for our help to produce their products within a short time. Sometimes we also have to ask them to wait due to an unexpected error. I think we help each other to grow together."

According to these findings, Thailand can use these two positive dimensions to boost up apparel and textile industry in the domestic market. With the strength in market scales, consumers' sophistication, strong interrelation between firms and quick response of firms to the domestic market, Thai fashion apparel industry seems to have a strong foundation and be able to become even more competitive within the future. Nonetheless, there are the other two dimensions in the domestic diamond model that still require improvement in the industry.

4.2.3 Weakness in "Factor Conditions"; Basic Labor Factor and the Lack of R&D Resources

Figure 4 shows the domestic diamond and we have already discussed the strong dimensions of Thai apparel and textile industry. We are now looking at the other two dimensions with low competitive advantage compared to Korean benchmark: Factor Conditions and Related and Supporting Industries' Conditions. Domestic factor conditions include two main factors: basic factors and advanced

factors. Basic factors in apparel and textile industry refer to labor force and their production rate. While Korea moves its skill work to lower labor cost countries to maintain their competitive advantage, Thailand has long been known as a source of inexpensive labor, which was the initial catalyst for the nation's economic growth (Supachalasai 1998). According to the raw data in Table 3, 572,000 was the number of workers and laborers in clothing and apparel industry in Thailand in 2013 while Korea had about 301,188 workers. However, this factor may not offer security in the long-run due to global sourcing, especially when the competitors have a very large number of skill workers in their nations. Nevertheless, Thailand has lost its competitive advantage in labor cost after the minimum wage law was reinforced within the country. Interviewee D mentioned that her factory had to reduce the staff size after the law came out. She had to buy more effective machineries to replace the capacity of labor workers she had to give up.

"The 300 Baht policy affects our company directly. We had to decide whether to bear with higher costs or to cut cost. Our decision was the latter because our factory could not dump other costs anymore. It was a tough decision but I think it was the only exit door we had."

According to Patichol et al. (2014) and Wacharavesringkan et al. (2010), Thai neighboring countries such as Vietnam, Laos, Cambodia, and Myanmar are enjoying low labor advantages. However, labor cost is not the only indicator that firms need

to consider. Productivity rates such as sewing skills, cultural work patterns, and availability of viable production equipment also contribute to labor cost (Kunz 2007). The higher labor cost within the domestic market may represent a job loss on one side but it also represents a higher level of knowledge, resources and technology that the labor has. Unfortunately, Thai workers are still far behind in terms of production rates compared to the Korean industry. South Korea is eager to create changes by concentrating more on specialized factors. Most of the workers are well educated and have management skills such that they can manage their small numbers of workers with higher efficient outcomes (Jin Byoungho 2006). For Thailand's current situation, it still possesses advantages in the labor-intensive apparel industry, particularly in rural areas, although those labors are mostly unskilled or semi-skilled workers (Watcharavesringkarn 2010). Apparently, Thailand needs to develop those unskilled and/or semi-skilled workers to work more efficiently to obtain higher rates of production, which goes along with the high minimum wage.

Moreover, advanced factors in factor conditions are also area for improvement for Thailand to improve its competitive advantage. Porter (1990) asserted that advanced factors of factor conditions were the most significant factors for competitive advantage as they involved sophisticated human resources and technology. Advanced factors in fashion apparel and textile industry consist of

research and development department, royalty and license fees, productivity of professional, and design power in clothing and textile. These advanced factors can be observed in most leading fashion countries such as Italy and France (Jin Byoungho 2006). It is these factors that can substitute obsolete basic factors, especially lower labor cost, for instance by improving the human resources and the production process which directly concerns research and development (R&D). From our findings, Thailand seems to be in a difficult situation regarding its domestic advanced conditions at the moment. Research and Development (R&D) in Thailand is significantly low compared to the size of the economy. In 2013, R&D expenditure of Thailand accounted for only 0.21 percent of its GDP while Korea's accounted for almost 3.74 percent of its GDP (World Bank Data, http://data.worldbank.org/ Accessed 20 May 2015). To improve R&D, there are several means. Wacharavesringkarn et al. (2010) proposed we should improve rural unskilled and semi-skilled workers by providing job opportunities that allow them to work at home instead of going to the factories. This process would not affect R&D directly but would have an effect in the future especially in terms of the offspring. They suggested that the income that those workers get means a higher household income which will encourage the parents to support their offspring for higher education (Watcharavesringkarn 2010). R&D is believed to be achieved through good education or internal development. Interviewee E and interviewee F, who graduated from the

Faculty of Fine Arts, Srinakharinwirot University, majoring in fashion design, mentioned about their course and how they had developed their fashion skills.

"We chose fashion design as our major and we chose Srinakharinwirot University as our priority. The reason was this course was a well-known course in the industry. It would open up opportunities to access fashion-related jobs and we thought it was beneficial for us to study about fashion from the most prestigious lecturers in the industry."

Nevertheless, the two interviewees spotted a flaw in the course syllabus which only had one subject related to management and business.

"We had been studying for 4 years and all we had learned was all about sewing, making clothes, and designing. I think what we should know more is about how to manage the products that we made. […] It turned out that what we can do is all about labor stuff. We don't know how to create our own brand properly. Trial and error is what we have to do but at least we should be educated on what a good trial is."

According to Porter (1998), parallel competitiveness analysis of Korea's fashion apparel industry showed that education was the top priority of all Korean parents and a proven proactive factor for the development of the Korean economy. Korean parents encourage their children who are interested in the fashion industry to study abroad, particularly in the US where fashion institutes are more popular and

more internationalized. According to the Institute of International Education statistics, there were 68,047 Korean students who enrolled in either colleges or universities in the United States during 2013 to 2014. It accounted for 7.7 percent of all foreign students who enrolled in the US. Moreover, the number of Korean students who enrolled in fashion and apparel related major at Parsons The New School Designs, which is one of the most prestigious fashion institutes in the US, is approximately 10 percent of the whole international students (The New School Parsons, http://www.newschool.edu/parsons/ Accessed 10 June 2015). During their time in the institute, they can accumulate their knowledge of fashion design and entrepreneurship simultaneously. The student designers can gain recognition from international audience during their student life abroad while they can learn about how to build their own boutiques for a business at the same time. Given the national zeal for education and fashion, Korea is likely to be in a favorable position in producing creative fashion designers (Jin Byoungho 2006). On the contrary, Thai students interested in this field mostly end up studying in Thailand. There are several fashion institutes in the country but few subjects in the courses cover relevant business and management skills. Interviewee G, a lecturer at Rajamangala University of Technology Krungthep (RMUTK), expressed her views on the government support and course quality.

"We receive support from the government, which tries to build up more valuable human assets in the fashion industry. However, there are only few students who enrolled in our course. There are around 200 students in total with 10 lecturers"

She also agreed with the findings that the courses should include more management-related subjects.

"I think the subjects still have a shortfall in improving the students' own skills"

In other words, Thailand is still lacking in the development of human resources, which leads to a weakness in the nation's competitiveness. Even though the production of Thailand may be better than the neighboring countries (Kunz 2007), Thailand still needs to develop this factor to ensure that they can maintain this competitiveness in the long-run.

4.2.4 Weakness in "Related and Supporting Industries"; Communication Problems in Thailand and Opportunity in the Future

Related and supporting industries conditions in the domestic context are another dimension that Thailand should be taking care of. Referring to Table 4 and the domestic diamond in Figure 4, the scores of competitiveness index between Thailand and South Korea are noticeable. Domestic related and supporting industries proxies are categorized as infrastructure and related industries. In related industries parameter, textile industry in Thailand is currently doing pretty well compared to the benchmark. According to Thai Textile Organization, textile industry accounted for

7 percent of manufacturing gross products in 2012. The value of this sector was approximately 5.4 billion US dollar. The evidence supports our finding that the textile industry is relatively strong and has a good relationship with the fashion apparel industry. Besides related industries, another obstacle for Thailand to improve its competitive advantage comes from the lack of well-established infrastructure.

The domestic infrastructure proxies in our analysis include transportation and communication. Regarding the former, Thailand has established its transportation network very well. The road network in Thailand is accessible throughout the country and data shows that it is even better than Korea. However, for communication proxy, we discovered a lack of basic needs in the internet networks. Porter (1998) suggested that information technology, which supports coordination in global sourcing and efficient management of the global supply chain, may be more important than other determinants. In South Korea's case, the technology infrastructure is very advanced. The internet is highly stable and easily accessible throughout the country. In 2014, the internet in Korea had the fastest connection speed in the world (approximately 25.3 megabits per second) whereas the average of the world was around 3.9 megabits per second (Akamai Technologies; http://www.akamai.com/stateoftheinternet/ Accessed 23 June 2015). In addition, fixed broadband and cellular broadband in South Korea were also ranked in the 8th place in 2014 (International Telecommunication Union, http://www.itu.int/ Accessed

23 June 2015). This is beneficial for both consumers and suppliers. That is, the consumers can easily access the products using online shopping, creating competition within the domestic market. This will encourage domestic suppliers to develop their products in order to compete with others, meaning a higher level of innovation. Not only those, suppliers also gain benefit from an easy communication with their upstream and/or downstream companies (Shafaei 2009).

Thailand, on the other hand, still lacks stable and accessible internet like South Korea. The connection speed was approximately 6.6 megabits per second in 2014, ranked at 32nd place along with Australia, France, and Italy. (Akamai Technologies; http://www.akamai.com/stateoftheinternet/ Accessed 23 June 2015). Also, the fixed broadband stability was ranked in the 22nd place while the mobile cellular broadband stability was ranked in the 119th place in the world in 2014. (International Telecommunication Union, http://www.itu.int/ Accessed 23 June 2015). The numbers above indicate instability of the internet infrastructure that affects business running in Thailand. Interviewee H, who works at the National Broadcasting and Telecommunication Commission (NBTC), discussed about this problem during the in-depth interview:

"Thailand has been faced with a lack of internet stability. We are unable to optimally access the internet due to inadequate internet infrastructure. We still need to improve this network and we are currently doing it by collecting money

from the internet providers both wired and mobile cellular networks and put into

USO (Universal Service Obligation) for sufficient fund."

She also compared Thailand and South Korea and pointed out that these

two countries have been developing in a different pathway, thus leading to different

outcomes.

"Thailand and South Korea are different from the start. For South Korea, they

believed that building a stable and accessible internet infrastructure was important

and had to be done promptly. Thailand, on another hand, had a different thought.

They believed that economic growth and prosperity should be obtained before

building the infrastructure. Apparently, we went the wrong way, which led to the

problems we are facing nowadays."

Nonetheless, she believed that there is an opportunity for Thailand to build a

better Internet infrastructure since there will be a 4G (LTE) auction held within 2015.

She also gave an opinion on internet shopping business that there should effective

rules and regulations to prevent illegal or immoral business.

"We are about to have 4G LTE auction within this year (2015). This is a good

opportunity for Thailand to leapfrog its information technology to another step. This

will be beneficial to everyone in the country and it can also improve our strength in

the economic point of view too. [...] Internet shopping should be one trend that

Thailand can rely on in the future, but rules and regulations must be strictly

implemented. South Korea is a good example of doing this because they have strong business ethics. So their internet shopping is quite successful."

Internet shopping or e-commerce in Thailand has been growing rapidly during the past 5 years. According to the National Science and Technology Development Agency of Thailand, the number of consumers using social media such as Facebook, Twitter, and Instagram has increased sharply by 10 percent within one year. These marketing channels are very effective. According to Nakasai (2014), Thai international brands such as ASV by ASAVA, Disaya, Irada, etc. are now focusing mainly on the social media channels, which are becoming more striking and effective in the eyes of the customers (Nakasai 2014). Without a doubt, interviewee A and interviewee B mentioned earlier also use digital marketing to create brand awareness. They are promoting their clothes through Instagram and Facebook by updating their new collections, posting famous customers' photos, etc. Therefore, there should be a bright future for the apparel and textile industry using internet shopping as a sales channel. With internet infrastructure development, the nation's competitiveness will definitely be enhanced.

In sum, the weaknesses impeding Thai competitiveness are subjected to the four main causes: a higher labor cost from minimum wage law, a lack of human resources and R&D within the industry, a lack of educational resources for the industry, and a lack of communication infrastructure. Thailand needs to improve their

domestic competitiveness based on these four main issues in order to drive the apparel industry towards sustainable success.

4.3 International Variables of Diamond Model

Figure 5 shows an international diamond model of the apparel and textile industry of Thailand and South Korea. From the figures, it is obvious that the international diamond of Thailand is relatively small compared to South Korea benchmark. South Korean fashion apparel industry is more competitive in three main determinants i.e. demand conditions, related and supporting industries conditions, and firm structure, strategy, and rivalry. However, only factor conditions of Thailand are significantly higher than South Korea. Still, a comparison between the Thai and South Korean international diamond model and the domestic diamond model shows contradiction in factor conditions with Thailand having low scores in this determinant in the domestic diamond model but high scores in the international diamond model. Other variables of Thai international competitiveness are approximately in half of South Korean diamond. These four determinants will be discussed and important implications are to be derived from the empirical results and in-depth interviews of this study.
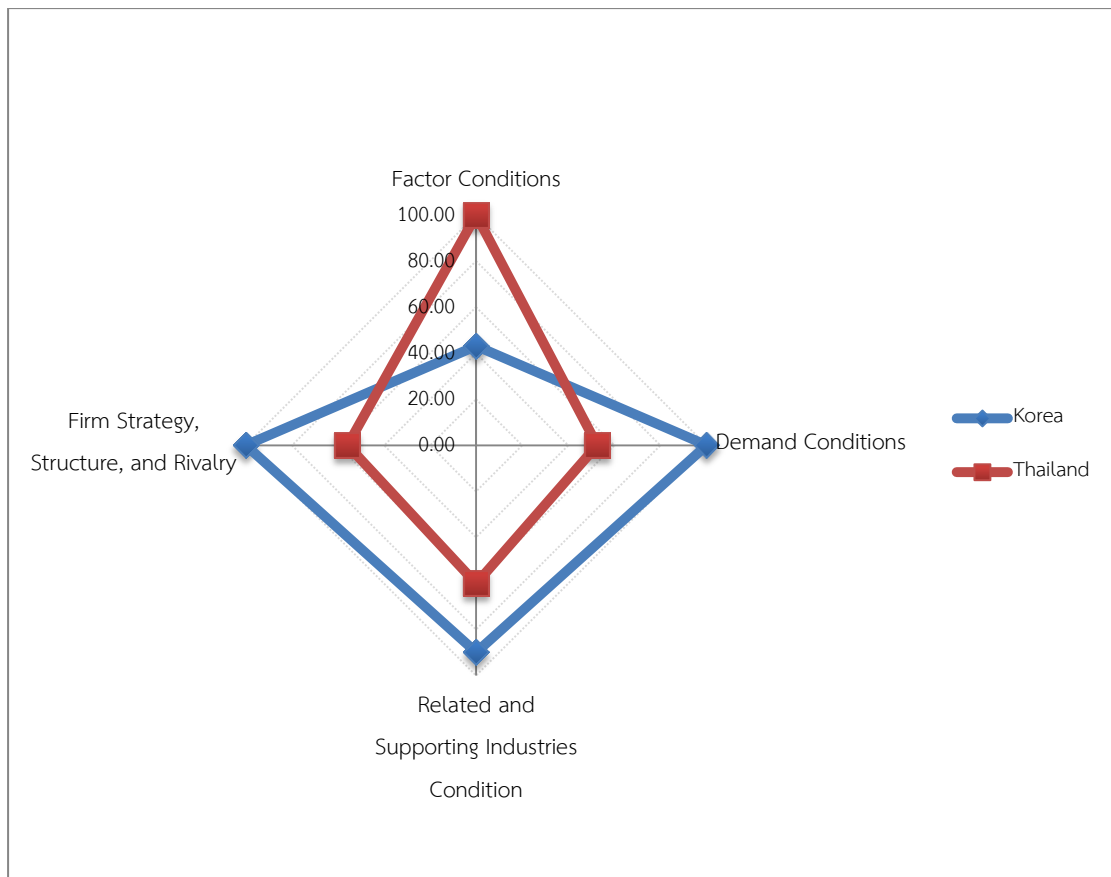
Figure 5 The International Diamond Model

4.3.1 Strength in "Factor Conditions"; the FDIs

First, we look at the positive determinant of Thailand - the international factor conditions. The determinant includes two main parameters as does the domestic, which are the basic factors and the advanced factors. The basic factors increase rate of export while the advanced factors involve multinational companies. Global sourcing has been considered a critical component in achieving competitive advantages (Frear 1992). Foreign Direct Investments (FDIs) is a perfect parameter to calculate the international diamond because modern technology from these firms can leapfrog domestic factor conditions through R&D collaborations (Liu Day-Yang

2009). This study's empirical results also indicate that FDI flow in Thailand is massive. According to the Board of Investment (BOI), FDI projects which got approved by the organization and were involved in the apparel industry in 2014 were 37 projects with approximately 338 million US dollars of investment value. Therefore, Thailand is still an interesting country that can attract FDI to relocate their light factories to Thailand. One of the main reasons is Thailand's infrastructure. Even though the findings show that the domestic factor conditions, especially a communication factor, is still far behind; however, it is stronger compared to the neighboring countries like Vietnam and Cambodia. As such, global apparel buyers sourcing from Thailand can expect efficient lead times and on-time shipments (Kunz 2007). Furthermore, skilled human resources in Thailand are relatively cheaper compared to those advanced countries such as Singapore, Hong Kong, Taiwan, and South Korea. Hence, multinational companies are interested in Thailand and want to set their headquarters and/or regional branch within the country. Consequently, information technology, innovation, and R&D will be transferred, which will enable Thai workers to become more efficient and innovative and lead to an improvement in competitive advantage of the nation in the long run. On the contrary, South Korea has significantly lower FDI flows. This may stem from the rise of wage cost. As a result, the country is not so attractive for international companies to set up their factories in. Thus, South Korea is now concentrating more on creating brand awareness throughout the global markets. In other words, they are now transforming themselves to be one of the multinational

companies, which invest in lower wage countries (Jin Byoungho 2006). To gain international recognition, more Korean fashion designers are now presenting their design lines in global showcases. Even though the scale of Korea's global resources and marketing is still relatively small, it is highly probable that Korea's competitiveness will be significantly higher due to their domestic factor conditions - R&D expenditure.

4.3.2 Weakness in "Demand Conditions"; The Recognition of Thai-dentity Brands

According to Figure 5, the international diamond model of Thailand has three main drawbacks; one of those 3 determinants is demand conditions. For the international perspective, demand conditions refer to the recognition of the nation's apparel brands in the global market (Liu Day-Yang 2009). It is important for small open economies like Thailand to search for foreign markets since there will be excessive supplies in the domestic market. Thus it is beneficial to see how overseas markets react to Thai and South Korean fashion apparel products (Son Mi Young 2013). From our findings, it can be seen that Thai fashion brands are rarely recognized by international markets. The overseas market shares of Thailand for fashion apparel was only 0.9 percent (Thai Textile Organization, http://www.thaitextile.org/ Accessed 15 April 2015) while South Korea was 3 percent (KIET) in 2010. This topic was brought into discussion during the interview with interviewee B, who said that Thai brands are still new to the world fashion market.

Most of international customers who know of and are interested in Thai designers are from Asia. Even his brand's current target is China and ASEAN countries.

"Chinese people love our products. We went to China to do showcase two times and the response from customers was very positive. Moreover, we got contacts from selected shops in China, Taiwan, Hong Kong, and South Korea, who want us to send our clothes to their shops. ASEAN countries such as Indonesia, Philippines, and Singapore also offer us an opportunity to establish our brand in their department stores."

He also mentioned about the recent showcase that was held in Paris, France. He said that he went with other Thai new designers to expand the market to the west. Being able to gain attention from more developed countries means the quality and design of Thai fashion goods are doing well.

"The outcome was really good. Many people were interested in our brands. The others who came with us also gained a lot of attention from European market. Our design and quality are outstanding and we believe that somehow we can make our brand more recognized internationally."

Gaining recognition from international customers, especially those from developing countries, can bring a bright future to Thai fashion apparel industry. One good example of an international impact is the case of E-land Group, a Korean company which became very successful in the Chinese market. E-land launched its

products including E-land, Scofield, Teenie Weenie, Roem, etc., in China during 2000's and the brands were regarded as premium brands with expensive pricing which is two times higher than the average income of Chinese people at that time (Jin Byoungho 2012). As for Thailand, Thai international brands are typically positioned as premium in developing countries even though they may not be considered so in Thailand. With this direction, the brands can enjoy high revenues, which can lead to a higher level of R&D expenditure to maintain their premium image in the long run. All these will eventually help Thai apparel industry become more competitive overtime.

Another instance of how an international phenomenon can affect the nation's competitiveness is when international brands come to Thailand and indirectly push domestic players to develop their own brand's quality and designs to competitively serve both domestic and international customers (Jin Byoungho 2012). As such, Thai-dentity brands can play an important role in the Thai apparel industry at the present and policy makers should help to support relevant international projects. According to Wacharavesringkarn et al. (2010), Bangkok Fashion City project was a good policy that acted as a stimulus to the industry. It was expected to strengthen cooperation between the public sector and private firms, particularly between small-and-medium-sized businesses. Evidently, with support from the government sector, engaging quality environments for apparel operations can be

created to support Thai-dentity brands. With strong support from both parties, demand conditions in the international market will increase and Thailand can gain a higher competitive advantage in the long run.

4.3.3 Weakness in "Related and Supporting Industries Conditions": The E-commerce Opportunity

Looking into international related and supporting industries conditions of Thailand, we discovered that the international prism has a similar shape compared to the domestic diamond. It is obvious that Thailand needs to improve their communication infrastructure in order to bring both customers and suppliers to the global market through the internet. The e-commerce in the world market scale is extremely large and competitive. Obviously, if the rate of internet users is high, the rate of e-commerce consumers is high too. Consumers will have a great variety of fashion goods, both domestic and international brands, to choose from. Suppliers will have more opportunities to sell their products globally and enjoy a higher price tag in foreign countries. However, monopolistic competition is something the firms need to deal with in the global market. In order to survive the fierce competition, they need to be different from others. Greyhound Original is a good example in the way they manage their brand to capture foreign attention. Greyhound Original is perceived as premium fashion brand in Korea where the shop is located in the central fashion district of Seoul, Garosu-gil Road. Moreover, they also have an online

shop, from which customers can conveniently buy their products even though they are far away from the offline channel. Greyhound and Playhound clothes always appear on celebrities in the K-pop industry. They are eye-catching to consumers who can easily buy what they like right away from the online shop. It should be noted that online shopping in South Korea is successful because the Korean technology infrastructure matches that of the most advanced nations (Porter 1998). Thailand, on the contrary, needs to improve this infrastructure to widen their opportunities and maximize their potential.

4.3.4 Weakness in "Firm Strategy, Structure, and Rivalry": Global Business Doing

The lack of internationalization in Thai firms is also another problem found in our analysis. According to WTO data, the market share of major global market of Thailand was about 0.9 percent while Korea was almost 3.1 percent in 2013. Domestic rivalries in the apparel business are fierce. However, this intense competition is a driving force for response time improvement to satisfy increasingly demanding consumers (Watcharavesringkarn 2010). The competition of Thai firms in the global scale is relatively weak. Most firms in Thailand which are related to global fashion brands are classified into two main types: vertical and horizontal (Martin 2002). The vertical cluster includes the first stage industry i.e. fabric production up to the final stage industry i.e. clothing production. The horizontal cluster includes service businesses such as logistics, IT, in-house enterprises, financial institutions,

educational institutions and related government authorities (Thailand Textile Institute 2007). These two types of firms are mostly an OEM (Original Equipment Manufacturing) and it would be better if they can develop themselves from an ordinary OEM to ODM (Original Design Manufacturer) and finally to OBM (Original Brand Manufacturer). Following this direction, the industry will acquire more innovation. Also, with a large flow of FDI as stated earlier, Thailand would enjoy a large surge of technology and innovation from abroad and be able to develop their own brands and finally become an OBM.
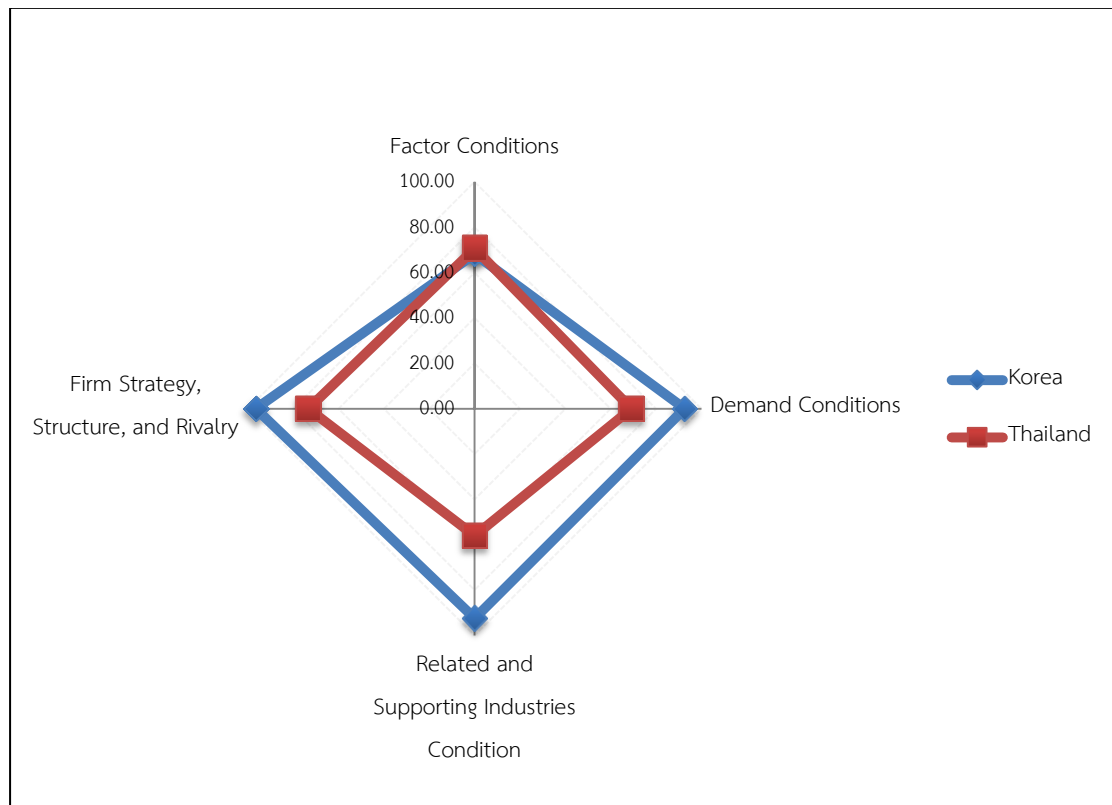
4.4 Overall Competitiveness Diamond

Figure 6 Overall Diamond

Figure 6 is the overall competitiveness diamond of Thailand and South Korea. The empirical results were calculated as the average sum of the scores from the domestic and the international diamonds (Son Mi Young 2013). When we analyzed the domestic and the international diamonds separately, we saw the strengths and weaknesses of Thailand in details. However, the global diamond displays the overall picture of the nation's source of competitiveness. From Figure 6, we can see that Thailand as a big picture is still lacking behind South Korea in terms of

competitiveness, except for the factor conditions where the influence of FDI flow contributes to Thailand's better competitive advantage. Furthermore, when we compared our findings to other similar studies of countries of different developmental stage, we found that South Korea, Singapore, and Japan shared similar diamond model outcomes both in domestic and international perspectives. For Thailand, which is considered to be in the 3rd tier and follows Japan, South Korea, and Singapore in terms of developmental stage (Akamatsu 1962), a progress is spotted as the country has been achieving competitive advantage overtime. With the strength in factor conditions, Thailand shares the same spot in global estimates with China (Son Mi Young 2013). Nevertheless, the difference between these two countries lies in the incompatible size of Chinese domestic factor conditions (Jin Byoungho 2006). While Thailand's apparel industry may be smaller in size compared to China's, the sources of competitiveness can be from other factors particularly the human resources conditions. According to Seng-Leong Teh, Transaction Advisory Services at Ernst & Young, it is suggested that Thailand and Southeast Asian companies should be moving towards more innovative companies by investing more in gaining business and management skills from abroad.

"Southeast Asian companies are getting smarter and realize that they can't continue playing this low-cost game because of competition. In order to maintain margins, they need to move up the value chain and they need to acquire the know-how and the technology as part of that strategy." (Ernst&Young 2012)

According to Ernst & Young (2012), the aims of Thailand's outward investments vary sharply between developed countries farther abroad and high-growth markets closer to home. For developed markets, Thai companies firmly focus on gaining access to intellectual property (48%) and skilled workers (44%). Also, Thailand is ranked 33rd out of 125 countries in terms of its market sophistication and 25th in terms of business sophistication. As for the Thai apparel industry specifically, Mr. Thavorn Kanokvaleewong, President of Thai Garment Manufacturers Association, has a vision to improve innovation and human resources in the industry. He foresees the future direction of Thai apparel and textile industry as "Fashion + Fabric Co-Design" in which suppliers, fabric manufacturers, customers, and fashion designers brainstorm and synthesize their ideas together. This will lead to a more efficient value-chain and a higher level of innovation (Thai Textile Organization 2015).

CHAPTER V

CONCLUSIONS AND DISCUSSION

5.1 Conclusion

The apparel and textile industry is a foundation industry from which most developed and developing countries have built their prosperity. However, given the nature of the industry which concentrates on labor-intensive products, the current global sourcing trend poses a threat to the growth of the industry especially in higher wage countries. In order to survive this situation, the industry needs to find other sources of competitiveness to protect their position on the global stage. This paper tried to identify the sources of competitive advantage of Thailand's fashion apparel industry using South Korean industry as a benchmark. The reason that this research linked Thailand and South Korea together was that both countries have similar developmental pathway successfully led by Japan (Jin Byoungho 2012). Moreover, South Korean apparel and textile industry has already reached its final stage where they start to become an international OBM, which is a good indicator for Thailand to be compared with.

The study adopted the diamond model (Porter 1990) and generalized double diamond model (Moon H. Chang 1998) theories as its theoretical framework and employed a qualitative approach to explore the sources of competitiveness of

Thailand's apparel and textile industry. A competency index with 31 sub-variables analyzed in three perspectives namely a domestic diamond, an international diamond, and a global diamond of both Thailand and South Korea was established. Based on the index, eight different in-depth interview sessions were conducted to collect insight data.

The results indicate that Thailand's strengths lie within its domestic market, domestic consumers' sophistication, strong interrelation between apparel firms, and quick response of firms to the domestic market. However, the weaknesses of the Thai apparel industry in the domestic context include a higher labor cost, insufficient human resources development and R&D development, a lack of educational resources for apparel and textile industry, and a lack of communication infrastructure.

As for the international perspective, Thailand's competitive advantage is a large amount of FDI flow, which implies efficient skilled workers at a relatively cheaper cost compared to the neighboring countries. However, Thailand needs to improve the conditions of its communication infrastructure and the internationalization of the industry in order to catch up with others on the global stage. The overall diamond index, showing Thailand's lower scores compared to South Korea as a benchmark, confirms that Thailand needs to put more effort in order to achieve competitive advantage.

5.2 Policy Suggestion

In order to gain more competitive advantage, this study provides suggestions for all involved in the industry as follows:

5.2.1 Improving communication infrastructure:

Internet shopping can be an interesting alternative market channel in which both consumers and suppliers can enjoy more various choices and easier access to fashion products. With these benefits that both parties mutually receive, there should be more competition within the domestic market which will lead to more products development. Moreover, suppliers can attract more customers from either home market or foreign market, which will push the firms towards internationalization. However, these conditions should occur only if there are effective rules and regulations issued to monitor the business.

5.2.2 Supporting an education to be more efficient:

As mentioned in the analysis part, the Thai government already started to support the fashion industry with budget for scholarships. Still, the plan is not fully working yet as the number of students who can access this program is still small. Besides, there are only a few lecturers and professors specializing in this industry. In order to build a strong foundation of education, the government and universities should promote this industry in a way that encourages more people to become

interested in the industry and become valuable human assets. Course syllabus of fashion programs should include more entrepreneur and management subjects so that the students are prepared for the real business world.

5.2.3 Paying more attention in R&D and private property rights:

Research and Development (R&D) expenditure in Thailand is relatively low. The firms should pay more attention to creating new innovation such as patterns, fabrics, design, etc. in order to compete in the fierce global fashion market. Also, Thailand should pay more attention to property rights protection as it is one of the major problems found in Thailand. The penalty for those who exploit property rights should be more severe.

5.2.4 Supporting the internationalization:

Attracting more foreign direct investments to Thailand is a good way to improve internationalization of Thai firms. At the same time, the government should also help promote Thai fashion industry in the global fashion world. Projects like Bangkok Fashion City can gain international's attention. It can capture more foreign customers' interest in Thai designers, which will promote more Thai brands in foreign markets. Consequently, the industry itself will transform from OEM (Original Equipment Manufacturing) to OBM (Owned Brand Manufacturing), which will be a

valuable competitive advantage that contributes to the stability of Thai fashion industry in the long run.

5.3 Limitations and Further Research

In conclusion, this study has analyzed the competitiveness of Thai fashion apparel industry focusing on small to medium firms using South Korea as a benchmark. However, the study may not fully cover the overall picture of the industry. Thus, further research may include large firms and/or use a different benchmark which may be more relevant to the research context. A parallel analysis should be a good future research topic to confirm the findings about Thailand's better skilled human resources compared to the neighboring countries.
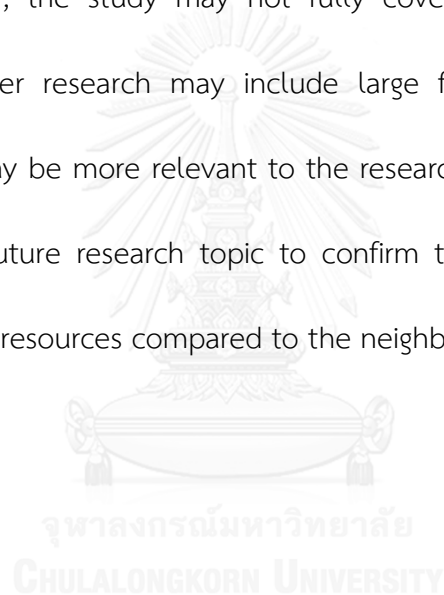
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APPENDIX

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