ANALYSIS OF THE COMPETITIVENESS OF THE GARMENT INDUSTRY IN CAMBODIA

POTRY CHHEAN

MASTER OF BUSINESS ADMINISTRATION

IN BUSINESS ADMINISTRATION

MAE FAH LUANG UNIVERSITY

2008

ANALYSIS OF THE COMPETITIVENESS OF THE GARMENT INDUSTRY IN CAMBODIA

POTRY CHHEAN

A THESIS SUBMITETTED TO MAE FAH LUANG UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
DEGREE OF MASTER OF BUSINESS ADMINISTRATION
IN BUSINESS ADMINISTRATION

MAE FAH LUANG UNIVERSITY

2008

ANALYSIS OF THE COMPETITIVENESS OF THE GARMENT INDUSTRY IN CAMBODIA

POTRY CHHEAN

THIS THESIS HAS BEEN APPROVED
TO BE A PARTIAL FULLFILMENT OF REQUIREMENTS
FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION
IN BUSINESS ADMINISTRATION
2008

AMINING COMMITTEE

.... CHAIRPERSON
(Assistant Professor Dr. Taweesak Theppitak)

.... MEMBER
(Assistant Professor Dr. Khin Maung Nyunt)

.... MEMBER
(Dr. Witaya Krajaysri)

.... MEMBER
(Dr. Sangchan Kantabutra)

.... MEMBER
(Dr. Nathapornpan Uttama)

ACKNOWLEDGEMENT

Throughout the course of research leading to the completion of the thesis, I would like to express my gratitude to many persons who have provided me with tremendous help and support in both knowledge and encouragement.

First of all, I am very grateful to my advisor Dr. Witaya Krajaysri, for his useful advice throughout the period of the research study. He encouraged and provided fruitful feedback to me in the draft until the completion of this paper.

I would like to extend my sincere thanks to MBA Supervisory Committee members, Asst. Prof. Dr. Khin Maung Nyunt and Dr. Sangchan Kantabutra who, in spite of their busy schedule, spent a lot of time to help me in making my paper more appropriate. More importantly, I would like to express my sincere appreciation to Assistant Professor Dr. Taweesak Theppitak for his comments and suggestions. Also I would like to acknowledge Dr. Nathapornpan Uttama for her comments and suggestions. In addition, I would like to express my sincere thanks to my Editor, Mr. Matthew Ferguson for his assistance and suggestions.

Specially, I would like to express my sincere appreciation to the Thailand International Development Cooperation Agency (TICA) who provided me a graduate scholarship for studying the Masters of Business Administration in International Trade at MFU.

Moreover, I would like to express my sincere gratitude and special thanks to H.E. Dr. Cham Prasidh, Senior Minister and Minister of the Ministry of Commerce, and H.E. Kem Sithon, Mao Thora, and Keo Sok Nay as the Secretary of State of the Ministry of Commerce, who have appointed me to attend this course.

Also I want to express my sincere thanks to H.E. Chuon Van, Consultant of the Ministry of Commerce and Director of Bilateral Trade Department, and finally to my colleagues for supporting and encouraging me during my study.

Further more, I am grateful to express my sincere thanks to President and Vice Presidents, and Dean and Lecturers of school of management of MFU whose distributed their experience, knowledge and mental spirits.

However, I am not forgetting to my sincere thanks to two coordinators: Ms Sureerat Potipim, Program Officer of TICA and Ms King Kaew Saksittanupab, Affair Officer of Mae Fah Luang University for their helping and managing during my course as well as my sincere thanks to graduate office staffs, particularly, Ms Orawan Suwannaard for her useful contribution in teaching SPSS.

I am also very glad to thank my friends, especial my buddy, Mr. Chea Socheat gave me some related reading materials and useful comments relating to my research topic, and my friend, Mr. Dago Tshering is studying at Management Information Technology of School of IT in MFU for his useful contribution in protecting methods my computer.

In addition, I would like to thank all participants shared their valuable information while I conducted survey questionnaires in the field. The thesis cannot be completed without having their assistance and cooperation. The editorial tasks undertaken by Mr. Matthew Ferguson, Lecturer, School of Liberal Arts, MFU is also acknowledged.

Last one but not least, I appreciate greatly the support and encouragement of my family through this long period. I am thankful for my parents Mr. Chhean Peng Hot and Mrs Tang Naiki for their birth, feed, love & immortal encouragement and my parents in law Mr. San Theng and Mrs Va Chheng and my brothers and sisters for their immortal encouragement. Finally, I would like to express my special thanks to my extremely lovely wife for her love and support constantly.

This thesis is consecrated to my respected and loved grandmother Chang Yu Eng for her immeasurable love, cares, and supports me during her aliveness.

Potry Chhean

Thesis Title Analysis of Competitiveness of the Garment Industry in Cambodia

Author Mr. Potry Chhean

Degree Master of Business Administration (Business Administration)

Supervisory Committee

Dr. Witaya Krajaysri		Chairperson
Assist. Prof. Dr. Khin Maung Nyunt		Member
Dr. Sangchan Kantabutra		Member

ABSTRACT

The Cambodian textile and clothing industry is a potential engine to boost economic growth and employment creation for the poor from rural areas. It is also the most important source of industries in Cambodia, being more competitive and having comparative advantage to other countries. This industry has the potential to continuously benefit from trading growth in globalization change. Cambodia's garment industry faced increasingly fierce competition in the globalization era, specifically as Vietnam became a WTO member in 2007, and as safeguard measures on China were lifted by the US and the EU at the end of 2008.

This paper provides a statistical analysis based on firm–level data from 150 sampled companies collected in 2007. The purpose of this thesis is to examine extensively the key factors of the Porter's Diamond Model and the GEM model's influence on the competitiveness of the garment industry in Cambodia. The collected data from the surveys were analyzed through the SPSS software program.

The results are reported in frequency tables, bar charts, pie charts, means, standard deviations and the Logit Model relative to explain the research questions. Combining all of the results in this thesis will reveal possibilities to strengthen the capacity of the garment sector to deal effectively with rapid change and growing competition in order to capture the trade opportunities that are being created through improved market access. The contributing factors that enhance international competitiveness of the garment sector are found to be electricity supply cost, labor forces availability, availability of cheap and abundant workers, local financial resource availability, stimulating collaborative innovation processes in the fields of dissemination and technological transfers for research and development (R&D), negotiating and lobbying improved market access for preferences under Most Favored Nation (MFN) or the Generalized System of Preferences (GSP) given by advanced countries, and collaboration between the government and private sector.

In addition, the related government institutions have authorized the issuance of licenses or certificates of origin to the companies. They should take actions to eliminate corruption and other trade barriers. This paper also highlights these issues to be solved and suggests some strategies for enhancing competitiveness in the face of global environment challenges.

Keywords: Analysis / Competitiveness / Cambodia’s Garment Industry / Diamond Model and GEM Model.

CONTENTS

CONTENTS (Cont.)

Page

CONTENTS (Cont.)

LIST OF TABLES

TABLE **Page**

LIST OF TABLES (Cont.)

Page

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

1.1 Problem Background

Cambodia entered competitively into the international market when it became a member of ASEAN and the World Trade Organization (WTO) in 2000 and 2004 respectively. Whether or not Cambodia benefits from globalization remains a major concern among Cambodians and international donor communities who support its development. In order to benefit from globalization, Cambodia must be competitive. The Economic Institute of Cambodia (EIC) (2005) states that competitiveness is crucial for Cambodia to survive in international markets, and there seems to be only a limited commitment by the government to improve the country's performance.

Cambodia's garment industry plays a crucial role in the Cambodian economic development in terms of export earnings and employment creation. It became notable in the mid–1990s after Cambodia restored peace in 1993 (Korea Institute for International Economic Policy and Korea International Cooperation Agency (KIEP & KOICA), 2006). The garment sector helped to boost Cambodia to become a WTO member on October 13, 2004 (Hing, 2006).

The Ministry of Commerce (MOC) and the Asian Development Bank (ADB) (2004), and Bargawi (2005) state the main activities in Cambodia's garment industry before Cambodia became a WTO member. Cambodia's garment industry began to grow rapidly after Asian Financial Crisis in 1997. When Cambodia was granted Most–Favored Nation (MFN) status by the US in 1996 and signed a framework cooperation agreement with the European Union (EU) in 1997, it allowed access to EU markets under the Generalized System of Preferences (GSP).

In 1999, Cambodia signed the bilateral textile agreement with the United States, which linked quota access to factories' compliance with international labor standards. It was a unique time that the United States implemented such an explicit linkage. From 1999 to 2005, the International Labor Organization (ILO) made annual increases of the US quotas conditional on compliance monitoring of factory operations (The United States Agency for International Development (USAID), 2005). In 2001, Cambodia's access to the EU market became both quota–free and duty–free under the EU "Everything but Arms" generalized system of preferences for least–developed countries (including Cambodia). In response to these incentives, Cambodia's garment industry began to grow. As of early 2005, the membership list of the Garment Manufacturers Association of Cambodia (GMAC) included 238 companies (USAID, 2005).

Factories are concentrated in and around the inland capital city, Phnom Penh, from which containers trucked 230 kilometers to be sea–freighted from the deep–sea port in Sihanoukville. The value of garment exports grew from $26 million in 1995 to $2 billions in 2004. This makes up nearly 80% of the country's merchandise exports (International Monetary Fund (IMF), 2004). Furthermore, Cambodia's garment sector still played a vital role in 2005. The garment exports reached almost US$2.2 billion, increasing by about 10% compared to 2004, and had seen 53 new investment projects in garments in the year following the elimination of the global Textile and Clothing (T&C) quota (The Economic Institute of Cambodia (EIC), 2007).

Cambodia's garment industry accounts for approximately 80% of the country's exports, employs over 300,000 people directly, and contributes to the livelihoods of more than 2 million people (Press Release). Over 90% of jobs involve mostly female workers who are minimally skilled. They are production workers in several departments, including cutting, knitting, sewing, quality control, and finishing. However, factories also employ skilled workers, both men and women, to support and manage the factory at two levels as supervisors on the production floor and as production planners and engineers, technicians, merchandisers, operations support, logistics experts, and management (USAID, 2006).

The World Bank (2007) reports that Cambodia's robust economic performance continued in 2006 with real GDP growth estimated at about 10.5%, marking a third consecutive year of double–digit growth. Growth has continued to be underpinned by garment exports, tourism, construction, and agricultural expansion. The garment sector employed 10% of the labor force, accounting for 14% of GDP, and expanding further with exports rising by 20% in 2006. More and more, Economics Today (2008) announces that garment exports jumped 11.7% overall in 2007 due to a 10.9% increase in exports to the US and a 4% rise in exports to the EU, but the overall garment industry growth rate slowed to 10% in 2007 compared to 20.4% in 2006. According to The Mekong Times Newspaper (2008), it quoted the IMF as saying, "Cambodian garment industry is a major contributor to the gross domestic product (GDP) with over 340,000 workers exporting about USD 2.9 Billion worth of garments last year."

The garments sector is now facing stiffer competition from Vietnam's accession to the WTO, and is anticipating the possibility of greater competition from China at the end of the year 2008 when the US and the EU will lift safeguard measure on China. However, the economy's considerable dependence on garment exports makes it highly vulnerable. Any employment loss in the garment sector could result in a decline in workers' livelihoods (EIC, 2007).

The competitiveness of Cambodia's garment industry and the impact of ending the quota system will be scrutinized. Some possible scenarios, such as the duty–free access to the US and the EU markets with no condition to the rules of origin will assess. The garment industry is one of the mainstay industries in Cambodia.

This is a proper research study to investigate the level of competitiveness, the strengths and weaknesses, and opportunities and threats (SWOT) by analyzing factors affecting the development of Cambodia's garment industry. It is crucial to analyze the competitiveness of Cambodia's garment industry by using qualitative and quantitative methods.

Therefore, the research problem is to examine the main factors influencing the competitiveness of the garment industry from existing theories and materials, and to establish an exact model suitable for use to evaluate the field of the garment industry in Cambodia.

Will the model developed in this thesis have practical implications on the whole garment industry, or will there be theoretical implications for the other parallel industries by referring to this reliable model of assessing competitiveness in the garment industry? Moreover, how will the government and private sectors support the garment sector in order to determine the effective strategies to implement a competitive edge for the garment industry in Cambodia in the global niche market?

1.2 Objectives of the Study

The objectives of the study are as follows:

1. To examine the current status of competitiveness conditions of the garment industry in Cambodia.

2. To find the main determinants affecting the competitiveness of the garment industry by applying the relevant existing theories to analyze its competitiveness.

3. To find out the strengths, weaknesses, opportunities, and threats of Cambodia's garment industry.

4. To search for the policy implications of study with respect to trade and industry.

1.3 Scope of the Study

This study is intended to study the factors affecting competitiveness in Cambodia's garment industry based on the list of factories from the Ministry of Commerce and the entire Garment Manufacturers Association of Cambodia (GMAC) membership operating in Phnom Penh city, Kandal and Kompong Speu provinces.

1.4 Research Questions

1. What do the competitiveness conditions refer to Cambodia's garment industry?

2. What are the main determinant factors affecting the competitiveness of the garment industry in Cambodia?

3. What are the main strengths, weaknesses, opportunities and threats (SWOT) of Cambodia's garment industry?

4. What are the expected outcomes with regard to competitiveness of the Cambodian garment industry?

5. How can competitiveness be improved for the garment industry in Cambodia?

1.5 Benefits of the Study

1. To assist in maintaining national economic growth and employment creation in the garment industry in Cambodia.

2. To maintain a competitive edge in the global niche markets for Cambodia's garment industry exports, especially in the main markets such as in the US, the EU.

3. It can help generate new knowledge, experience and modern business techniques for new students and stakeholders interested in the garment sector.

4. To provide recommendations to the policy–makers in the government and private sectors about the best alternative strategies to improve Cambodia's garment industry for enhancing and strengthening the country's competitiveness.

1.6 Conceptual Framework of Cambodia's Garment Industry Competitiveness

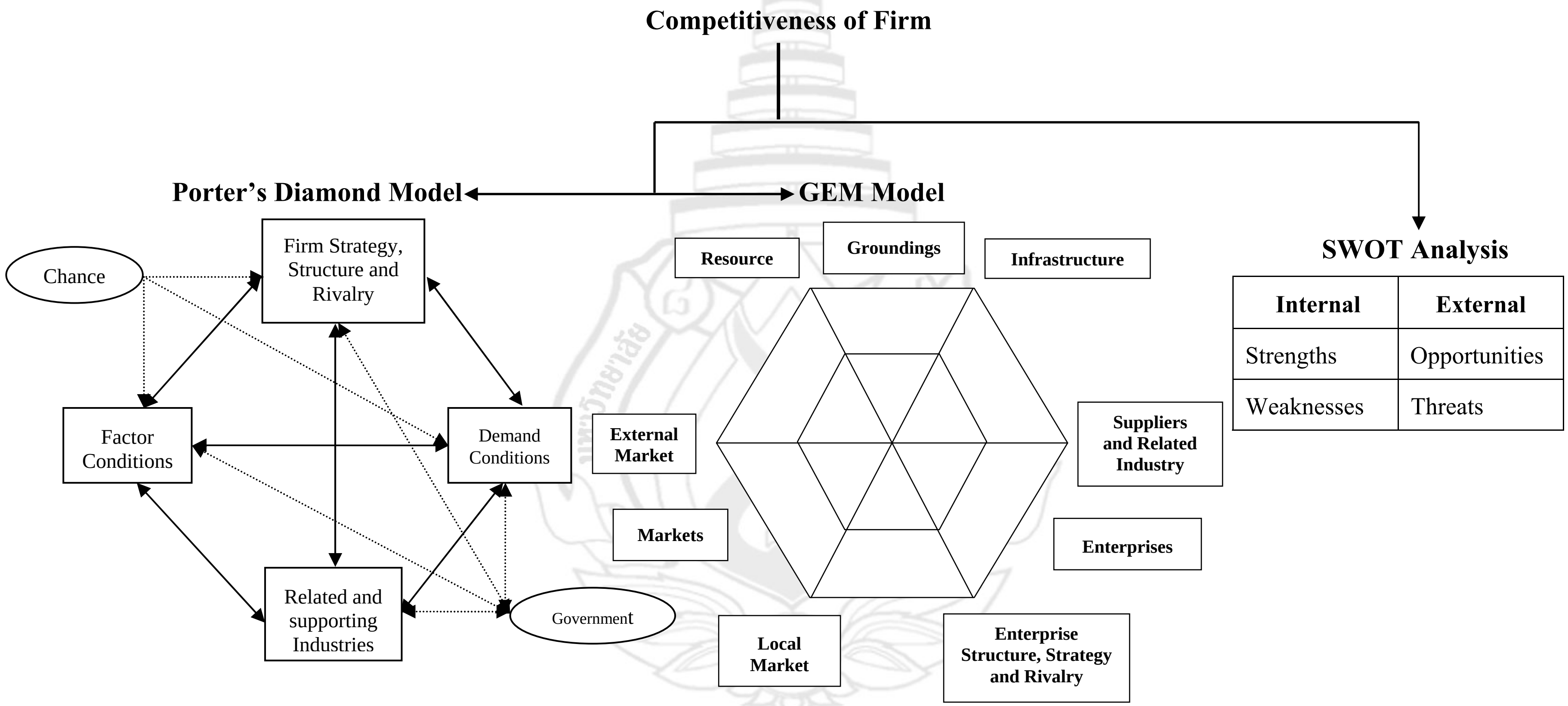


Figure 1.1 Conceptual Framework

1.7 Organization of the Study

The thesis is presented in seven chapters as follow:

Chapter 1 describes the background of the research problem and questions, objectives, scope, benefits, conceptual framework, and organization of the study.

Chapter 2 represents a literature review. First, the theoretical framework of competitiveness and its theories are introduced. Second, the related theories that can be used to assess the competitiveness in the field of the garment industry are explored. Third, the researcher investigates the characteristics of the garment industry in Cambodia by using modified versions of the 'Diamond Model and GEM Model.' Finally, a SWOT analysis is considered the determinant factors for competitiveness.

Chapter 3 describes the "Porter's Diamond Model" to explain competitiveness of the garment industry in Cambodia by a qualitative method. The profiles of Cambodia's garment industry are also discussed, examining the previous and current situations of the garment industry in Cambodia. Next, the six factors determining competitiveness of the garment industry are used in the thesis. Finally, the researcher assesses and highlights the weaknesses and strengths in Cambodia's garment industry.

Chapter 4 discusses the methodology and the research design for this analysis.

Chapter 5 presents the analysis and interprets primary data collected from the research questionnaire on the competitiveness of the garment industry in Cambodia. It focuses on the process of quantifying of influencing determinant factors in the garment industry sector.

Chapter 6 investigates the determinants of the competitiveness of the garment industry using the Logit Model, in which regression results are analyzed to identify the variables influencing the competitiveness of the garment industry in Cambodia.

Chapter 7 highlights in the conclusion, the research findings, and recommendations for the future.

CHAPTER 2

LITERATURE REVIEW

It is important to introduce various theories in the field of competitiveness, which are necessary for seeking a more sophisticated understanding competitiveness and gaining better insight into the driving factors behind it. It is also important to introduce some theories about the development of the national garment industry. The research problem in this study focuses on the determinants or main factors influencing the competitiveness of the garment industry in Cambodia.

2.1 The Concept and Measures of Competitiveness

Competitiveness can be defined at the level of nations, industries or individual companies. Scholars and institutions have been very profilic in proposing their own definition of competitiveness. Different definitions about competitiveness largely and particularly exist at the level of nations. Therefore, a clear concept of competitiveness is very necessary for researchers before conducting research.

With respect to macro–economy level competitiveness, it has been identified as a steady upward trend measured by GDP growth, productivity of resources and factors of production growing in macro economic terms. In addition, economic expansion on the international market (enlargement of the existing markets as well as entry into new markets), that is, with the capability of offering new, better and cheaper goods and services in a competitive environment (Porter, 1990). Moreover, in a highly competitive environment, leadership organizations achieve competitive advantages through acts of innovations.

According to the Organization for Economic Co–operation and Development's (OECD) definition, competitiveness denotes the ability of a firm, industry, region, nation or transnational group to confront international competition and to secure the sustainability of a relatively high rate of return on the factors of production, and of a relatively high level of employment. In the long term, improved competitiveness yields a growth in total productivity. High productivity is particularly important for successful competitiveness in the open international market, as it brings about a long time improvement in the quality of life and in the creation of jobs. Finally, higher productivity offers better use of competitive advantages, which are thus no longer limited to the availability of natural resources in the economy and global competition (OECD, 1994). In addition, the OECD definition stresses that competitiveness is the ability to generate sustainable and relatively higher revenues from factors of production and high employment because of exposure to international competition (Globalization and Competitiveness, OECD, 1996).

Others argue that the level of international competitiveness of an industrial sector or a given firm depends on several forces on the micro and macro level. Only the collective consideration of these variables will lead to an understanding of the dynamics underlying international competitiveness. On the other hand, national competitiveness, as the degree to which a nation can be under free and fair market conditions, produces goods and services that meet the test of international markets, while simultaneously maintaining and expanding real incomes of its people over the long term. This long–term perspective implies the need to reduce ecological impacts and resource intensity to a level at least in line with the carrying capacity of the nation's ecosystems (Altenburg, et al., 1998).

At the firm level, competitiveness is the ability of a firm to survive and prosper, given the competition of other firms for the same profits. The competitiveness of a firm is the result of competitive advantage and ability of a company to make products that provide more value to the customer than rival products, leading to higher sales and higher profits (Porter, 1985, 1996). Porter found that firms facing intense home–country pressures who respond by investing continuously in order to upgrade their competitive advantage would prosper internationally (Martin, 1999).

With respect to the competitiveness of micro level firms, Mutsune (2008) states that competitiveness is the ability to provide products and services more effectively and efficiently than relevant competitors. This includes sustained success in international markets without protection or subsidies. Measures of competitiveness at the firm level include profitability, cost, quality, the exports or foreign sales divided by output, and regional or global market share. Performance in the international marketplace is a direct measure of a firm's competitiveness.

Moreover, firm–level competitiveness is an important topic in business and policy research, and therefore this issue is addressed in a large body of economics literature. Methodology of measuring competitiveness is discussed in Cockburn, et al., (1998); Swann & Taghavi, (1992); Tybout, et al., (1996); Gauthier, et al., (2000).

At the company level (Altenburg, et al.,1998) state that competitiveness refers to the ability to sustain a market position. This ability requires the simultaneous achievement of several targets. The firm must supply products of adequate quality on time and at competitive prices. Moreover, it must be a rule to provide sufficiently diversified products to meet a differentiated demand, and it must respond quickly to changes in demand behavior. Beyond this, success is contingent on a firm's innovative capacity, its ability to build up an effective marketing system, to establish a brand name, and so on.

According to Krugman, the competitiveness of companies has a clearly defined bottom line: "if a corporation cannot afford to pay its workers, suppliers, and bondholders, it will go out of business. Therefore, when we say that a corporation is uncompetitive... it will cease to exist. Countries, on the other hand, do not go out of business ... they have no well–defined bottom line" (Krugman, 1994). In other words, the intensified global competition has pushed the firms to meet demands and standards quickly and effectively. Flexibility, quality, inventory reduction, efficient production cycle, and shorter lead–time in manufacturing become essential for firms to achieve global competitiveness. Moreover, a firm’s quick response to compete in the global market depends on the extent of manufacturing technology adopted and its integration of this technology into business operations (Mechling, et al., 1995).

2.2 The Analytical Study of Micro and Macro Levels Competitiveness

In particular, regarding one nation's industry compared to the same industry in another, Michael E. Porter proposed so–called national (macro level) competitive advantages. Why do nations achieve international success in a particular industry or why are particular industries or firms (micro level) in certain countries more competitive and more sustainable than the same industries in different countries? Moreover, Michael E. Porter's Competitive Advantage of Nations explores how businesses within a nation gains a competitive advantage. Porter (1990) believes that, "groups or clusters of interconnected firms, suppliers, related industries, and specialized institutions in particular fields present in particular locations, have become a new way for companies and governments to think about economies, assess the competitive advantage of locations, and set public policy." According to the Porter diamond model that has been widely used as a tool of competitiveness analysis in the world, Michael E. Porter introduced a model that can analyze why some nations are more competitive than others, and why some industries within nations are more competitive than others. Referring to Porter (1990), Porter diamond is a model that has won great international acceptance for sector competitiveness studies. Based on this paper's analysis of industrial clusters in which the competitiveness of an enterprise relies on the performance of other companies and players related along the value chain by means of supplier–client mechanisms that occur in local or regional contexts.

Because of the purpose of the research study is to analyze the competitiveness of the current state of the Cambodia's garment industry. There is no doubt that emphasis is put on this level. In addition, nation and firm level are helpful for researchers to analyze competitiveness.

According to Porter, the competitiveness of a national economy does not count on the macroeconomic, political, legal and social circumstances that prop it up. There institutions are not sufficient to generate opportunities for the creation of wealth, since wealth is created at a macro economic level, on the foundations of the sophistication of firms' operational strategies and practices, and the quality of the business environment in which they are competing. Porter equated competitiveness with productivity, and stressed the importance of identifying their determinants. Factors that determine competitiveness can be categorized as macro–level and micro level parameters.

With respect to the macro–economy**,** Wysokinska (2003) reveals that competitiveness is identified with a steady upward trend measured by GDP growth, productivity of resources, factors of production, growth in macro–terms, and economic expansion into the international market (enlargement of the existing markets as well as entry into new markets).

Thus, the best way to understand competitiveness is on the firm level. A firm is competitive if it is profitable. At this level, profitability, costs, productivity and market share are indictors of competitiveness (industry Canada, 1995). The Grossi (1990) & OECD (1992) also conclude that the factors influencing competitiveness at firm level include knowledge, managerial skills, finances, technology, and market nature.

In the case of industry level, this analysis of competitiveness seeks to respond to the classic questions in the economy: What is determinant investment? How is the success of firms determined? What are the best public policies for the sector? Pitts & Lagnevik (1998). The concept of competitiveness mentioned above are analyzed from three–aggregation levels (Industry Canada, 1995): that is, the firm, the industry or one sector of it, and the nation. There are different measures or indicators of competitiveness for each aggregation level.

Once again, with respect to competitiveness of micro level firm, Mutsune (2008) states that competitiveness is the ability to provide products and services more effectively and efficiently than relevant competitors. This includes sustained success in international markets without protection or subsidies. Measures of competitiveness at the firm level include firm profitability, cost, quality, the exports or foreign sales divided by output, and regional or global market share. Performance in the international marketplace is a direct measure of the firm's competitiveness.

Micro–level competitiveness is based on interaction. Learning–by–interacting is a key element in firms' innovation processes, and feedback loops between firms and supporting institutions are crucial in order to establish dynamic competitive advantages (Meyer–Stamer, 1998). In addition, an environment that sustains competitiveness is rooted in a national system of norms, rules and institutions that defines the incentives that shape the behavior of firms (Nelson, 1992). Reid (1986) states that firms can make good use of their specialized knowledge and can gain a competitive advantage. Technology is viewed as a way to increase productivity, which in turn results in a greater national competitive advantage (Porter, 1990). Aaby & Slater (1989) point out in their review that technology intensiveness was related to export propensity.

In addition, Lall (2001) asserts that economies that failed to develop their technological capabilities became losers in the globalization process. Innovation plays a key role for the future success of organizations. Generally, innovations are research and development's (R&D) output. How are innovations created in R&D? Many scholars accept that innovations are developed from the cumulative efforts of scientific and technological knowledge (Malerba, et al., 1997, Teece, 1996; Saviotti, 1995; Van & Andrew, 1986, 1993; Ayres, 1988). Nordås (2004) says that the textile and clothing industry has high–value added segments where design, research and development (R&D) are important competitive factors.

Moreover, Van & Andrew (1986) state that one of four central problems in the management of innovation is the human problem of managing attention and describe that it is difficult to convince trigger people (i.e. scientists and engineers) to pay attention to new ideas, needs and opportunities.

More and more, U.S. Department of Commerce (USDC) (2007) indicates that the development and deployment of innovation creates growth. Development of new products and services, as well as processes and organizational structures, provides opportunities for expansion and efficiency. Innovation manifests itself in two ways: (1) the development of new ideas and processes, and (2) the adoption of these advances. Innovative product design and manufacture follow technological advances. Education, risk tolerance, and intellectual property protection each play roles in bringing new products and services to market. Innovators also modify and improve production processes in seeking profits and growth. New processes and products more broadly affect productivity when diffused to firms and individuals. Countries and companies that are able to incorporate successful new ideas provide advantages to workers and consumers.

Again, USDC (2007) states the availability of adequate financing is a necessity for small enterprises to flourish. Typically, while small businesses comprise a large portion of all businesses and economic activity in many Western Hemisphere countries, they receive a very small %age of credit. Some banks and financing institutions have recognized the important client base that small businesses represent and are increasingly devising methods to better evaluate and mitigate the credit risks to make financing more available, but beyond this, an improved banking, financing, and regulatory environment can make developing countries more attractive to venture capital. Entrepreneurs whose ideas and companies may not fit the traditional criteria of banks and other financing institutions may find willing venture capital investors provided the risk of the regulatory and legal environment is competitive with other locations.

Exporting countries, seeking to maintain an export–led development strategy in textiles and clothing, have to address competitive weaknesses due to inefficient domestic regulatory regimes; obsolete infrastructure in essential business services; cumbersome customs procedures; and other distorted market structures. This chapter highlights the business environment in which trade in textiles and clothing takes place, underscoring the importance of a sound macroeconomic environment for facilitating the process of structural adjustment. It aims to emphasize the importance of minimizing the time involved in the international movement of textile and clothing products through more efficient transportation infrastructure and customs procedures, as well as the value of modern electricity and telecommunications infrastructure for the competitiveness of textile and clothing firms. In addition, it stresses the importance of nurturing/training a culture of entrepreneurship to support these industries where small– and medium–sized enterprises predominate (OECD, 2004).

Moreover, OECD (2004) states that while low wages can still give developing countries a competitive edge in world markets, time factors now play a far more crucial role in determining international competitiveness. Developing countries that can offer low–wage workers to sew garments or seat covers together may have a comparative advantage over developed countries for that stage of the assembly process, but that does not necessarily translate into a comparative advantage in the management of the entire supply chain when no export restrictions apply. Countries that aspire to maintain an export–led strategy in textiles and clothing need to complement their cluster of expertise in manufacturing by developing their expertise in the higher value–added service segments of the supply chain such as design, sourcing or retail distribution. To pursue these avenues, national suppliers need to place greater emphasis on education and training of services–related skills and to encourage the establishment of joint structures where domestic suppliers can share market knowledge and offer more integrated solutions to prospective buyers.

2.3 Studies on the Garment Industry

In the global change context, competitiveness must consider the development and innovation productivity in the nations, industries and enterprises to gain the competitive advantage in the global niche market. The overall impact of the new global market environment on Cambodia's garment exporters, and in particular the increasing competitiveness in the global textile and clothing (T&C) industry, is expected to reduce exports, retrench workers without alternative job opportunities, and produce a downturn in the national economy (MOC and ADB, 2004).

Jones (2002) mentions that the most important single element in the cost structure of the garment production process is fabric, which is normally held to account for around 40% of the total cost. A second important feature of the cost structure in the apparel sector that has a very high degree of labor intensity in which still characterizes production especially at the assembly stage. Whereas, Douglas (1987) points out that the roles of market and brands are very important, especially in the environment of a global economy "Globalization has become a key theme in every discussion of international marketing strategy. Proponents of the philosophy of 'Global' products ... argue that in a world of growing internationalization, the key to success is the development of global products and brands ... a focus on the marketing of standardized products and brands worldwide".

Moreover, Hunter (1990) argues that the industry could improve its competitive ability simply by making changes in management style to reflect the fact "that textile manufacture, garment making and retailing are not separate businesses, but must operate as parts of an integrated consumer responsive supply system". As Singleton (1997) argues in apparel production, the competitive advantage is created at the home base. Singleton (1997) and Dickerson (1995) demonstrate the majority of the world's top textile and clothing companies are American, European or Japanese. The location of the assembly production within the value chain is not, in itself, an indicator that a specific country is likely to be the home base for the most successful companies. Therefore, a high degree of systematic integration of geographic, historic, cultural and some other factors also contribute to the competitiveness of a garment industry.

The Ministry of Commerce (MOC) and The Asian Development Bank (ADB) (2004) state the global garment industry has raised some concerns about global competition when quotas phase out at the end of 2004. Performance norms of the garment industry are as follow: 1) Cost competitiveness will continue to be a main factor as garment prices expect to continue to fall after a couple years. 2) Buyers require faster deliveries to meet increasing levels of consumer demand and ever decreasing product cycle times. 3) Buyers want to make a business to be as straightforward and uncomplicated as possible. They have a greater choice after the quota phase–out, and they buy preferred suppliers who can offer consistent quality, reliable delivery dates, competitive prices and productivity levels at international standards. The number of countries in the garment industry can be expected to fall, and buyers will have greater value–added service requirements. 4) Foreign investors will have more freedom in where to place offshore investments after the ending of the quota system and will prefer host countries that enable successful operations with the least problems. In general, the global garment market has been demanding higher levels of (a) personal service, (b) quality consistency, (c) delivery lead times, (d) product innovation, (e) price competitiveness, (f) reliability, and (g) country image (including compliance with corporate codes of conduct).

However, many models elaborated by economists, with different views to the neoclassical approach and new theories of growth, have dominated the economic scenario. The competitiveness of Cambodia's garment industry is examined on the basis of modified versions of the Porter's Diamond Model and the GEM Model. The GEM model established the six categories of determinants affecting the competitiveness of industrial cluster, which includes "resources," "infrastructures," "suppliers and related industries," "enterprise's structure, strategy and rivalry," "local market" and "external market". The six categories is composed of three parts: Groundings—"resource" and "infrastructure" is called factor pair I; Enterprises—"suppliers and related industries" and "enterprise's structure, strategy and rivalry" is factor pair II; and at last, factor pair III is Markets—"local market" and "external market." These will be illustrated in the chart (Figure 2.2) below.

The Post–Agreement on Textile and Clothing (ATC) environment of the international market will undoubtedly provide opportunities for exports in the South Asia. If it seems opposite, competition will be fiercer among exporters within the liberalized market (KIEP & KOICA, 2006).

In other words, Wang et al. (2005) mention that the competitive term is now also a high–frequency word used in China. After China's acceptance into the World Trade Organization (WTO) and into further global economic integration, competition between different regions and deferent industries has become fiercer and fiercer, whereas, Cambodia is not different that.

Finally, a set of policy recommendations will be encouraging to supporting the industry. To gain further sustainable development of their economies, both the government and enterprising sectors are required enthusiastically to analyze and assess competitiveness to find out their weaknesses and strengths.

2.4 The Models of Cluster Analysis

There are many economic theories that can describe the competitiveness at different levels. The most commonly used models are the Porter's Diamond Model and the GEM Model. These two models are summarized in this section.

The Porter's Diamond Model has been widely used as a tool of competitiveness analysis in the world. Porter's "Competitive Advantage of Nations" has made two contributions. The first is that it provides a consistent model that can explain why, for example, the environment in Italy supported a successful fashion industry, and how a completely different national setting like Germany provided a basis for successful car and machine manufacturers. The second is that, based on the results of his analysis, Porter can give directly applicable recommendations on what to change in order to improve the competitiveness of an industry, and what to do to improve the attributes of a region or sector (Wang et al., 2005).

The countries' textile and apparel industries were examined with Michael E. Porter's Competitive Advantage of Nations theory model (1990) to assess the level of Competitiveness (McRee, 2002). As far as the GEM model is concentrated, the model developed on the basis of the Porter's diamond theory. First, the model is developed to explore the importance of new technologies, specifically the contribution of advanced materials in traditional industries, and has since been used in a wide range of national and international cluster analyses and benchmarking. It can describe and assess the strengths and weaknesses of clusters from a regional perspective.

Cambodia’s garment industry has formed a cluster in the nation. Therefore, this point of view will provide a clearer picture of the competitiveness of Cambodia’s garment industry to explain both the dynamics and potential of national development in the future.

The GEM model determinants are organized in a way that facilitates subjective scoring and allows mapping onto a more conventional production–system structure, so that we sensibly and intuitively appraise the economic impact from projects aimed at improving the cluster foundations such as resources, infrastructure, firm structure, strategy and rivalry, characteristics of local markets and access to global markets. It is easy to operationalize, even the process of quantification is subjective, and that may influence the accuracy of the result (Wang et al., 2005).

Since the Porter’s diamond model and the GEM model are important for analyzing competitiveness of industries and nations, they are applied to this thesis in both qualitative and quantitative ways. The comparative analysis of their two models is discussed in detail below.

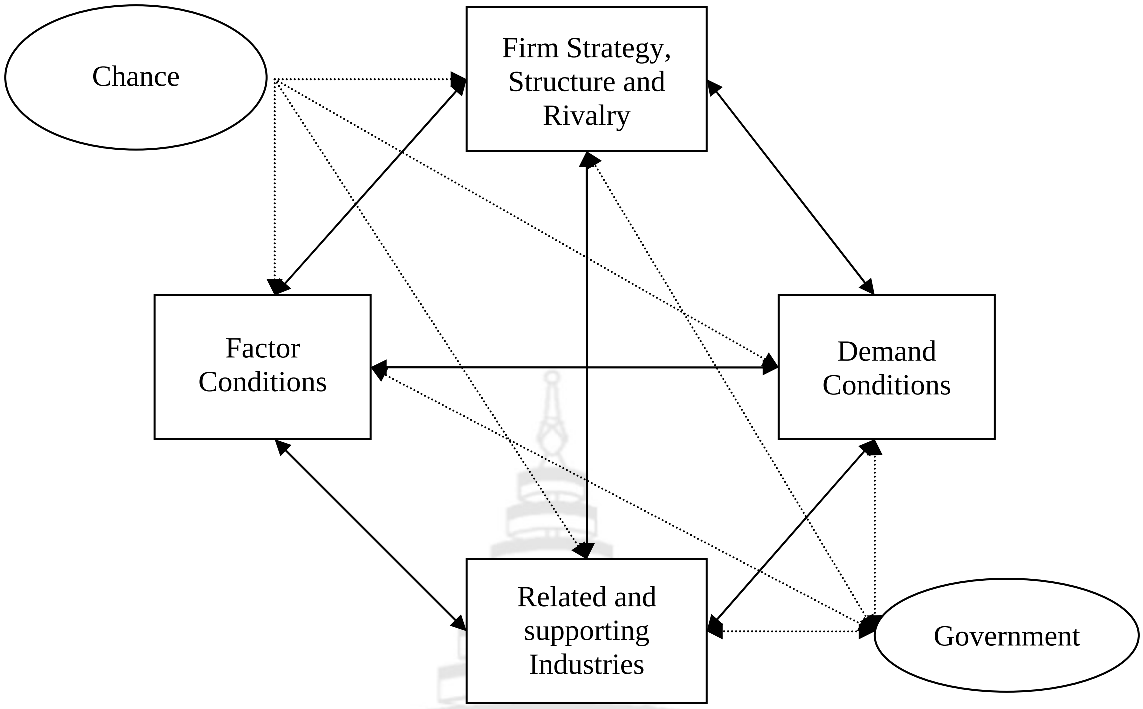
2.5 Comparative Analysis of the Porter’s Diamond Model and GEM Model

2.5.1 The Porter’s Diamond Model

Porter classified the factors into four broad attributes: Factor Conditions, Demand Conditions, Related and Supporting Industries, and Firms’ Strategy, Structure and Rivalry. This model of determining factors of national advantage is known as Porter’s Diamond 1990 displayed in the Figure 2.1 below.

1. Factor Conditions

Porter’s definition of factor conditions is what economists would term factors of production necessary for competition such as human resources, physical resources, knowledge resources, capital resources, and infrastructure. He defines **human resources** as the quantity and quality of workers along with the costs of personnel. He also notes that working hours and ethic should be included into this category of human resources.



Source: Michael E. Porter 1990, p. 127

Figure 2.1 Porter's Diamond Model

The physical resources of a nation indicate land, water, mineral deposits, or other physical traits. He records that a nation's location, climate, and geographic size would also fall under physical resources. Porter (1990) defines a nation's wealth of scientific, technical and market knowledge as knowledge resources. **Knowledge resources** are universities, governments and private research institutes and facilities, business and scientific literature, and trade associations. **Capital resources** defined by Porter are the costs and amounts of capital available to finance an industry. Finally, Porter defines **infrastructure** in order for an industry to compete, including a transportation system, communications system, payments or funds transfer, health care, and parcel and mail delivery and also the housing stock and cultural institutions.

According to Porter, many nations contain some variation of these factors. Some nations have more resources than others do, but Porter states that if one nation is to have strong factor conditions, the appropriate industries within a nation must deploy these factors in an efficient and effective manner. He addresses an interesting point that a competitive advantage can grow out of a selective disadvantage in some factors. He states that nations with limiting factors have to work aggressively to overcome their disadvantages. He also mentioned how Japanese firms in a variety of industries faced extremely high land cost and severe factory space constraints. To avoid these difficulties, the Japanese created just in time and other space–saving production techniques that considerably reduced needed inventory. He notes that factor shortages, unavailability, or strong restrictions on the use of factors can be or are more stimulating to develop and change an innovation.

2. Demand Conditions

Demand conditions influence the shaping of particular factor conditions. They have impact on the pace and direction of innovation and product development. According to Porter (1990), demand conditions are determined by three major characteristics: their mixture (the mix of customers needs and wants), their scope and growth rate, and the mechanisms that transmit domestic preferences to foreign markets. Porter (1990) states that a country can achieve national advantages in an industry or market segment if home demand is able to provide clearer and earlier signals of demand trends to domestics suppliers than to foreign competitors.

3. Related and Supporting Industries

The third determinant of a national advantage in an industry is its presence in the nation of related and supporting industries. Supporting industries help provide the necessary inputs that an industry may need to compete that are internationally viable. Related and supporting industries can supply importance inputs and services for the innovation and commercialization of firms in the sector and can also help share or coordinate particular activities in the value chain together concerned within complementary products.

1) Competitive Advantage in Supplier Industries

Michael E. Porter (1990) clarifies the competitive advantage in supplier industries creates advantages in three ways. The first advantage would be an early, fast, or preferential market access to the most cost–effective inputs that could create a competitive advantage. Second, suppliers can help create a competitive advantage by having close working relationships with the firms they supply. The third advantage that firms can gain from suppliers would be that if the suppliers are global competitors. Suppliers that are global competitors have more sources that are valuable for information and insight about competing internationally. Porter also adds the constant communication and interaction between firms and suppliers can lead to innovation and upgrading.

2) Competitive Advantage in Related Industries

Michael Porter argues that related industries that can share or coordinate their value chain activities can gain a competitive advantage. He states that these shared activities can occur in technology development, manufacturing, distribution, marketing, or service. Similar to supplier industries, related industries also provide a flow of valuable information and insight, which can help create a competitive advantage for an industry.

4. Firm Strategy, Structure, and Rivalry

Firm strategy, structure and rivalry, all are one factor that recognize the way in which firms are created and establish their objectives and types of administration. These factors will be very important for their success, together with the presence of intense rivalry from competitors, which will create pressures to innovate in order to improve competitiveness by Porter (1990). He argues that the goals and strategies in firms are of key importance in which the right goals and strategies are applied to the motivations of employees and managers by company goals, individual goals, the influence of national prestige on goals, and sustained commitment. These all can lead to a competitive advantage. Typically, corporate objectives in relation to patterns of commitment among workforce are of special importance. They are heavily influenced by structures of ownership and control. Family–business based industry dominated by owner–managers will behave differently than publicly quoted companies. Porter argues that domestic rivalry and the search for competitive advantage within a nation can help provide organizations with the base for achieving such advantage on a global scale. In addition, two variables can influence the national system in important ways and are necessary to complete in the diamond model. They are government and chance.

5. Government

The government may affect the four aspects mentioned above by affecting the conditions for the supply of key production factors, demand conditions and competition patterns among enterprises. Government intervention can influence local, national and supranational levels. On a national level, governments can consider the policies that should be followed to establish national advantages, which enable industries in their country to develop a strong competitive position globally. According to Porter, governments can foster such advantages by ensuring high expectations of product performance, safety or environmental standards, or encouraging vertical cooperation between suppliers and buyers on a domestic level etc.

6. Chance

Chance means things that have little to do with particular circumstance in a nation and lies beyond the power of the firm. Fortuitous events, such as inventions, wars, external political developments and major shifts in foreign market demand, which are beyond the firms' control but that can nevertheless generate discontinuities that will influence the gaining or losing of a competitive position. This can also can reshape industry structure and provide opportunity for one national firm to supplant another.

2.5.2 The GEM Model (Groundings — Enterprises — Markets)

The two Canadian scholars, Padmore and Gibson (1998) improve the Porter's diamond model by summarizing the experience based on long years of research on industry clusters. Then they created a new model, which can describe and assess the competitiveness of clusters from a regional perspective.

The GEM model established six categories of determinants affecting the competitiveness of an industrial cluster, which include "resources," "infrastructures," "suppliers and related industries," "enterprise's structure, strategy and rivalry," "local market" and "external market".

The six categories are composed in three parts: Groundings—"resource" and "infrastructure" are factor pair I, Enterprises—"suppliers and related industries" and "enterprise's structure, strategy and rivalry" are factor pair II, and at last, factor pair III is Markets—"local market" and "external market." Here it illustrates the relations between them in the chart (Figure 2.2) below.

Factor Pair I exists of the supply determinants to which the productive processes of enterprises in a cluster are input.

Resources: Resources are natural, inherited or developed endowments available with the region. These include natural resources like forests, mineral deposits as well as land, a labor supply that is skilled, flexible and reasonably priced.

Infrastructure: Infrastructure consists of physical structures and institutional arrangements that facilitate access to resources and support other business functions. It includes physical infrastructure like roads, ports, railways and communications as well as intangible infrastructure like business associations, research laboratories, training systems, tax and regulatory regime, national monetary policy, financial markets, business and labor climate, and quality of life (housing, crime,…etc.).

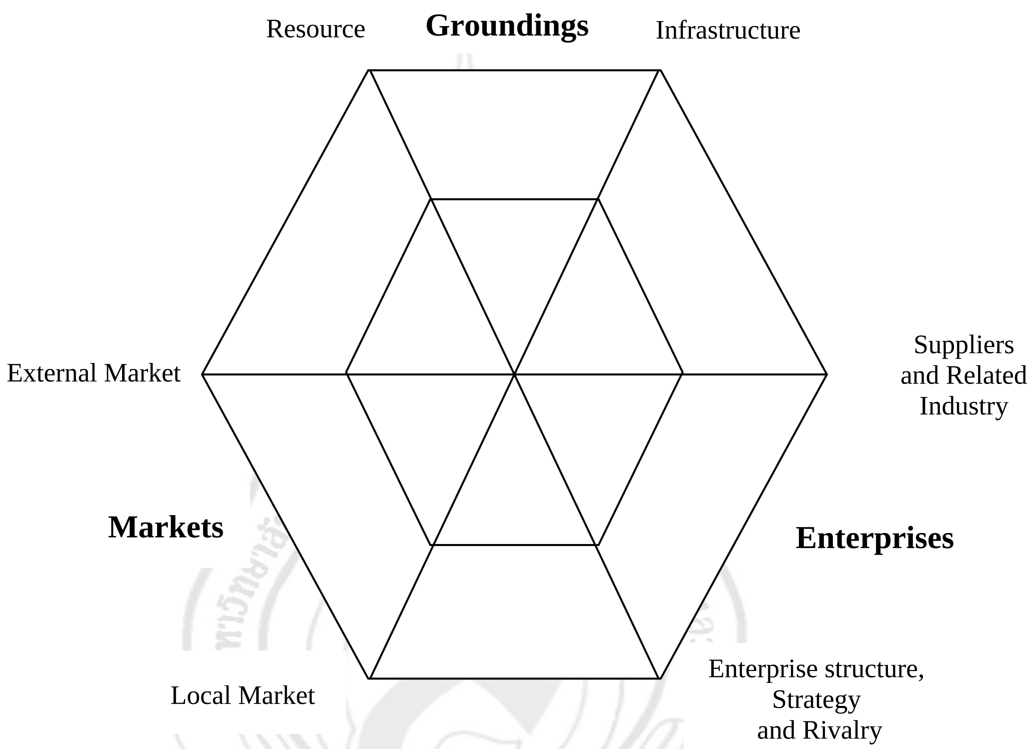


Figure 2.2 The GEM Model

Factor Pair II refers to the structural factors of enterprise clusters, which determine the productivity of a cluster. Their explanation is similar with that of previous two factors, as mentioned in the diamond model: “related supporting and industries” and “firm structure, strategy and rivalry.”

Supplier and Related Industries: The cluster uses the goods and services of other enterprises within the region. Success factors include diversity, quality, cost and proficiency, as well as the quality of the buyer–supplier relationships. The other issue is related firms that use similar technology, transferable human resources, similar specialized infrastructure, or that serve common markets. Success factors include the number and quality of these related firms, and the existence of formal and informal linkages between them and the cluster firms.

Firm Structure, Strategy and Rivalry: These refer to the number and scale of enterprises in a cluster, the arrangement manner of goods production between firms, the management form of enterprises and the structure type of firm property rights. They influence the strategy direction and competition tactic of the whole cluster. The reasonable size of a firm and the effective arrangement manner of production will make the value–chain in the cluster secure and nimble, thus assuring production process realizes not only the convergence effect of cluster but also scale effect of production. Meanwhile, the overall management level and the property right structure of enterprises in the cluster will depend on whether the firms is successful with an advantage of cost or differentiation, and then the growth and competitive strategies of the cluster in markets will be determined.

Factor Pair III means the demand conditions, including the end market demands, medium demands and the demands of enterprises in a cluster.

Local Market: It refers to a regional market. A province, a region, or a nation can be defined as local markets. Particularly, important are the sizes of the market, market share, growth and prospects, extent of local sourcing by purchasers, standards and quality expected, distinctiveness of local demand, and willingness of buyers to work with the local cluster.

External Market: In principle, regions face a more or less common set of external markets other than the local market. The differences between regions depend on the accessibility of external markets, including issues such as closeness of markets, their size and growth rates, global market share for the cluster, characteristics of end users, existing market relationships, barriers to entry, trade and export barriers.

The GEM model is a tool for studying competitiveness of industrial clusters based on the Porter's diamond model. Compared with the diamond model, it puts more emphasis on the role of the government in the cluster development, and it considers the different determinants with mutual supplementation and interrelations. Furthermore, the GEM model can quantify the level of competitiveness mathematically, which makes it more direct and convenient than other models that analyze competitiveness.

2.6 Strengths and Weaknesses, and Opportunities and Threats (SWOT) Analysis

SWOT is an acronym for the internal Strengths and Weaknesses of a firm and the environmental Opportunities and Threats facing that firm. SWOT analysis is a widely used technique through which managers create a quick overview of a company's strategic situation. It is based on the assumption that an effective strategy derives from a sound "fit" between a firm's internal resource (strengths and weaknesses) and its external situation (opportunities and its threats). A good fit maximizes a firm's strengths and opportunities and minimizes its weaknesses and threats (Pearce and Robison, 2000, 2005).

2.6.1 External Environment Analysis

1. Opportunities

Hitt, et al. (2007) define that an opportunity is a condition in the general environment that, if exploited, helps a company achieve strategic competitiveness. Pearce and Robison (2000, 2005) say that an opportunity is a major favorable situation in a firm's environment. Key trends are one source of opportunities. Identification of a previously overlooked market segment, changes in competitive or regulatory circumstances, technological changes, and improved buyer or supplier relationships could represent opportunities for the firm.

2. Threats

Hitt et al. (2007) define that a threat is a condition in the general environment that may hinder a company's efforts to achieve strategic competitiveness or an external force that could inhibit the maintenance or attainment of a competitive advantage, or any unfavorable situation in the external environment that is potentially damaging in the present or in the future. Pearce and Robison (2000, 2005) say that a threat is a major unfavorable situation in a firm's environment. Threats are key impediment to the firm's current or desired position. The entrance of new competitors show market growth increases bargaining power of key buyers or suppliers, technological changes, and new or revised regulations could represent threats to a firm's success. Zeltser (2008) displays that threats highlight external factors that magnify the adverse effects of internal system weaknesses. For instance, the company may be subject to fine–imposing regulations, or may possess weak management practices.

Understanding the key opportunities and threats facing a firm helps its managers identify realistic options from which to choose an appropriate strategy and clarifies the most effective niche for the firm. The second fundamental focus in SWOT analysis is the identification of international strengths and weaknesses.

2.6.2 Internal Environment Analysis

1. Strengths

A strength is an advantage resource relative to competitors and the need of the markets that a firm serves or expects to serve. It is a distinctive competence when a strength gives a competitive advantage for a firm in the marketplace. Strengths arise from the resources and competencies available to the firm (Pearce & Robison, 2000, 2005). Zeltser (2008) says that strengths list the most effective security aspects of the internal system, like for example, tight network access controls or comprehensive security policies. Improvements to the systematic security can be accomplished by building upon these strengths.

2. Weaknesses

A weakness is a limitation or deficiency in one or more resources or competencies relative to competitors that impedes a firm’s effective performance (Pearce and Robison, 2000, 2005). Zeltser (2008) says that weaknesses outline those aspects of the system that put it at risk, like for instance, poor input validation, or lack of effective log management. These aspects of the system should be improved.

The SWOT analysis approach is particularly powerful when the company defines the objective with respect to which the system should be evaluated. In the context of information security, this usually involves agreeing on the system's risk profile, data sensitivity, business goals, and other factors that affect the system's security architecture (Zeltser, 2008).

A SWOT analysis is a table that presents these elements in a firm’s compact manner as below.

Table 2.1 SWOT Analysis

	Helpful To achieving the goal	**Harmful** to achieving the goal
Internal System	**Strengths**	**Weaknesses**
External Environment	**Opportunities**	**Threats**

Source: Zeltser (August, 2008)

CHAPTER 3

OVERVIEW OF GARMENT INDUSTRY IN CAMBODIA: A MACRO-LEVEL COMPETITIVENESS PERSPECTIVE ANALYSIS

This chapter reviews the macro level factors determining the competitiveness of the garment industry in Cambodia and prepares a synthesis profile applying the Porter's diamond model.

3.1 Garment Industry in Cambodia

The Kingdom of Cambodia is situated in the Indo–Chinese Peninsula in South East Asia. The neighbors of the Kingdom of Cambodia are Lao PDR, Thailand and Viet Nam. Cambodia is constituted as a least developed country (LDC). Today, Cambodia has a population of 14 million people and an estimated labor force of 6.5 million people, and an estimated GDP per capita of US$454. It became a member of ASEAN in 2000 and the WTO in 2004. After over two decades of turmoil, the Cambodian government cooperates with private sector development and has reestablished its country with international assistance in the early1990s in order to provide basic needs for the home market. Cambodia restored peace in 1993 and the government shifted from a centrally planned to a free market economy in the mid 1990s.

Cambodia's garment industry is an engine. It has driven the Cambodian economy for over the last decade with both economic growth and employment creation. This sector has generated thousands of jobs and has recently become a mainstay of Cambodian manufacturing that it is the single most important export item. Since the garment industry has grown from almost nothing, in 1994, it represents 80% of Cambodia's export earnings in 2004.

In other words, in accordance with the review of national accounts recorded by the National Institute of Statistics (NIS), it shows that the Gross Domestic Product (GDP) growth rate has been at 8.6%, 10% and 13.4 % in 2003, 2004 and 2005 respectively, driven mainly by growth in garment exports in spite of the MFA phase–out in early 2005. Therefore, the garment sector is a priority for the development of national economic growth and employment creation.

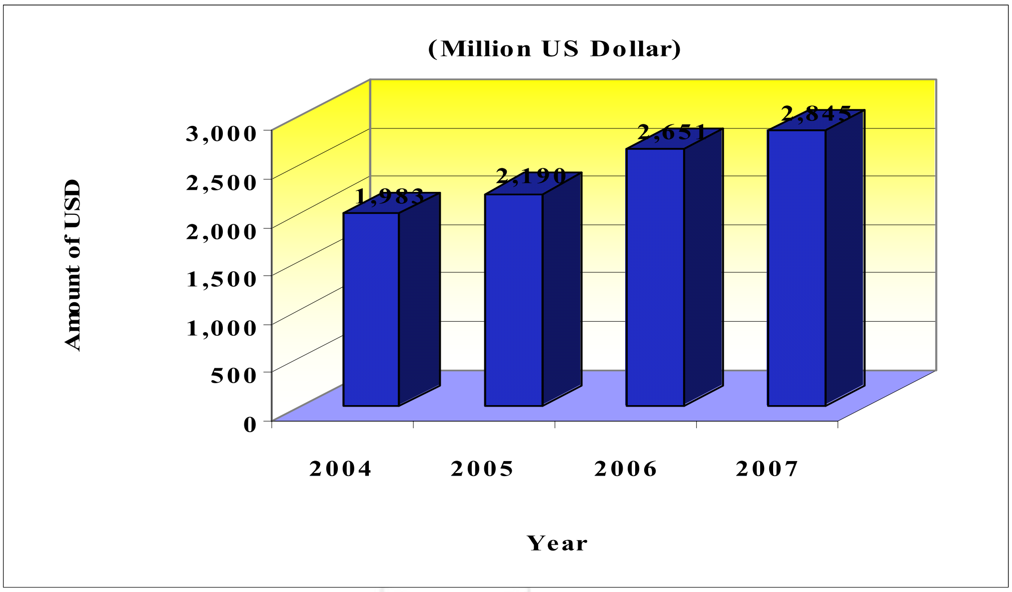
Table 3.1 Cambodia's Real GDP Growth (at 2000 Prices)

(Percent)

	2001	**2002**	**2003**	**2004**	**2005**
Agriculture	4.5%	-2.1%	11.9%	1.1%	16.4%
Crops	0.7%	-7.8%	22.3%	-12.2%	43.6%
Industry & Construction	11.7%	17.7%	12.5%	16.8%	12.3%
Garments	**28.4%**	**21.3%**	**16.8%**	**24.9%**	**10.3%**
Services	8.7%	6.3%	4.4%	11.7%	12.1%
Tourism	22.6%	18.8%	-16.7%	23.4%	17.3%
Total GDP	**7.7%**	**6.2%**	**8.6%**	**10.0%**	**13.4%**

Source: National Institute of Statistics (NIS), 2006

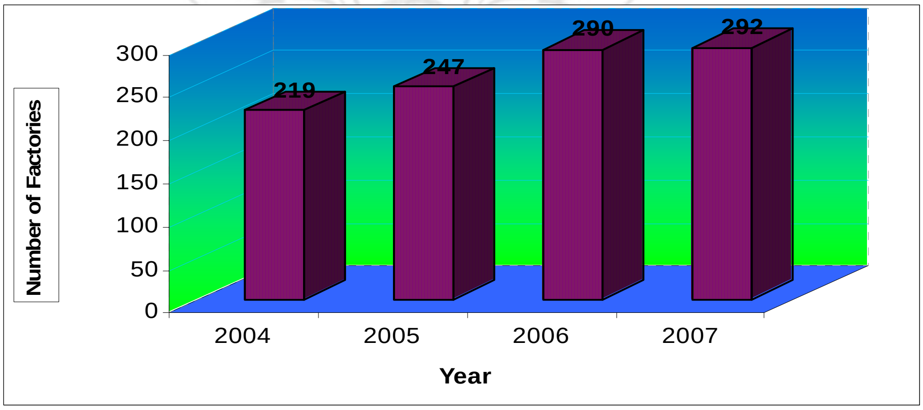
Moreover, according to the Ministry of Commerce reports the situation of the Cambodian garment export in the global market increased by about 1.9 billion US dollars in 2004 up to approximately 2.8 billion US dollars in the year 2007. However, the global market environment is in a transitional stage and the post textile and clothing arrangement ended at the early year 2005, but the Cambodian garment sector continues to increase in their exports to huge markets like the United States and the European Union. The report figures are shown below.



Source: MOC/GSP Department, the Ministry of Commerce (MOC), (May 6, 2008)

Figure 3.1 Cambodia's Garment Exports under GSP/MFN Scheme to the Main Markets 2004–07

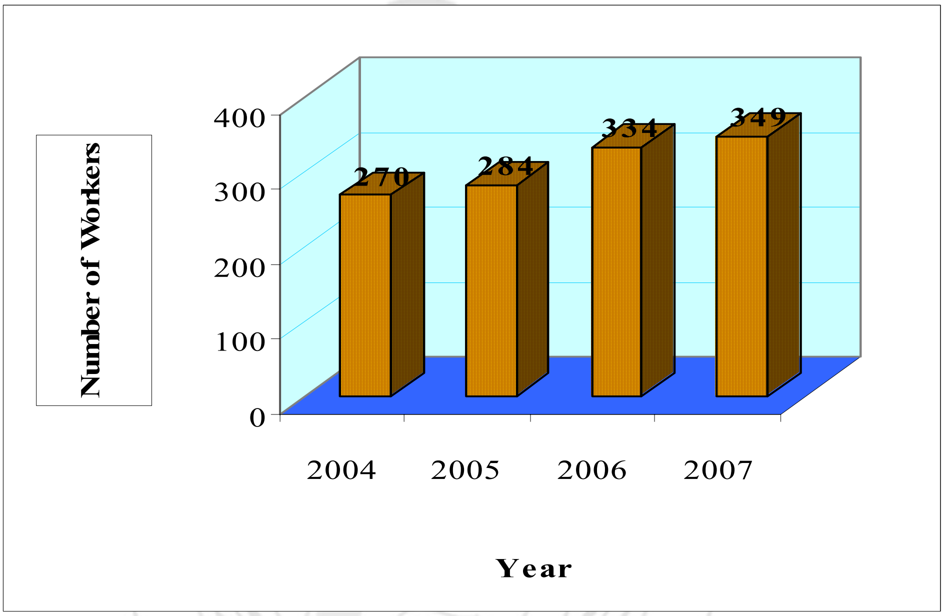
On the other hand, figure 3.2 shows that Cambodia continues to absorb foreign direct investment to invest in this sector too. Cambodia's garment industry has grown from 219 garment factories in 2004 up to 292 plants in 2007. Thus, this sector continues to attract more investors. Currently, Cambodia has nine Special Economic Zones in which the export–oriented garments are under preferential tariffs imported by advanced countries.



Source: MOC, (May 6, 2008)

Figure 3.2 Situation of Cambodia's Textile and Clothing Industry

Moreover, Cambodia has good reputation of "no sweatshop" without child labor, and of compliance with international labor standards monitored by international labor organization. This gained the confidence of big international buyers. Moreover, Cambodia is a safe place for producing garments. The garment sector has over 340, 000 workers in 2007. Most of them are women who have emigrated from rural areas such as Kompong Cham, Kompong Thum, Ta Koe, Prey Veng, Svay Rieng, Kandal and Kompong Spue provinces. Their purpose is to seek jobs as factory workers in Phnom Penh city.

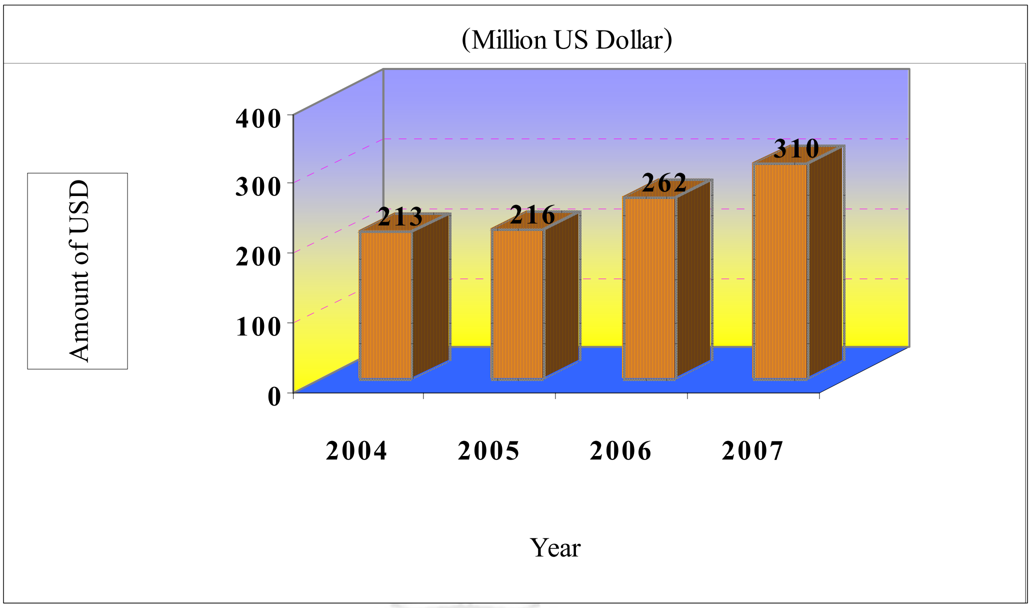


Source: MOC, (May 6, 2008)

Figure 3.3 Situation of Cambodian Garment Workforce

Cambodia's economy grew by 10.4% in 2006, up from 13.4% in 2005, and 10% in 2004, this growth is largely attributed to expansion of garment exports, construction, and tourism. This high growth rate was the result of an exceptional expansion in agriculture, and continuous growth in garments, construction and the tourism sectors (EIC, 2006).

Moreover, the Cambodian garment sector gained clear earnings of over 213 million US dollars up to 310 million US dollars in 2004 and 2007 respectively. In addition, it distributes more interests relevant to Cambodian people, institutes, and instruction field. See figure 3.4.



Source: MOC, (May 6, 2008)

Figure 3.4 Cambodian Garment Factory Workers' Wages 2004 – 2007

In spite of the sharp increases in the price of oil and other imported input costs, the Cambodian economy remains among the best performing in the region. The growth of the agricultural sector significantly declined from 13.4 in 2005 to 4.4% in 2006, due mainly to a slower growth of paddy production. However, the industrial sector remains very strong and expanded by 17.1% in 2006, about 5% higher than in 2005 (especially, 21.9% increase by the garment industry). The services sector managed a growth rate of 11.4% in 2006, which was down from 12.1% in 2005, despite a significant increase of 27.7% in the number of foreign tourist arrivals in Cambodia.

Polaski (2006); USAID (2005); Bargawi (2005) state remarkably that China, Hong Kong, Taiwan, South Korea, Malaysia and Singapore were the first operators of garment factories in Cambodia, when Cambodia opened up for foreign direct investment (FDI) beginning in 1994. Then, buyers from the USA, Canada and the European Union also began to source their garment and textile products from Cambodia.

In 1999, Cambodia had a unique trade agreement with the United States, allowing them to increase their textile and garment exports into America year by year if Cambodia could demonstrate compliance with its own labor code as well as with international labor standards. Under the agreement, Cambodian factories are regularly monitored by the ILO, working in partnership with factory owners, workers, trade unions and the government to promote better standards to improve concerning conditions. The results have been widely recognized as positive and as a commitment to improving labor conditions, which is one of Cambodia's key advantages for attracting foreign buyers. H.E. Dr. CHAM Prasidh, Senior Minister and Minister of Commerce said "...All in all, what is more important–with this trade and labor clause linkage–Cambodia was able to develop a new image: That of a country free from sweatshop, free from child labor, a stable country... In a nutshell, Cambodia is now providing a safe brand name: a safe and sound sourcing place" (at the Asia Global Sourcing Exhibition and Conference, Jakarta, February 14, 2002).

Based on the current trend, the prospects for growth in the industrial sector remain strong in the coming years, but at a slower rate it partly caused by Vietnam's membership in the WTO. However, the garment industry remained strong in 2006. According to the Customs Department of Ministry of Economy and Finance (MEF), the quantity of garment exports for 2006 increased by 32.5% from 2005. Most of which was to the US and EU markets, growth of 34.3 and 23.6% respectively. This growth is mainly a consequence of the safeguarding measures imposed by the US and EU to restrain Chinese garment exports, and the labor compliance project monitored by the ILO, which created a niche market for Cambodian garment products.

In other words, Cambodia's WTO membership and the reduction of export transaction bureaucracy also helped to maintain the sector's growth. In contrast, the overall unit price of Cambodian garment products on the world market during 2006 declined slightly by about 10.7% due to the emergence of many big competitors, especially in China. In total, the garment sector continues to increase its high growth in the national economy. However, Cambodia will face challenges to huge competitors like India and China, which will release safeguard measures at the end of 2008 on other competitors such as Bangladesh, Sri Lanka, and Vietnam.

3.1.1 International Competitiveness of Cambodia's Garment Industry

KIEP and KOICA (2006) mention that the post Agreement on Textile and Clothing (ATC) environment of the international market will undoubtedly provide opportunities for exporters in the South Asia. However, competition will be fiercer among exporters within the liberalized market. The World Bank (2004) analysis shows that amidst ever more fierce competition in price, trends of the global textile and clothing industry is likely to (a) depend on cost competitiveness (b) volume driven business (c) more concentration with fewer very large factories dominating the sector and (d) consolidation across borders. When quota restrictions disappear, competition in the T&C trade intensifies, especially, for small producers. In the long term, only countries that deliver high quality products with competitive prices can maintain their market share. Several factors may determine the industry's competitiveness. A competitive garment industry is normally composed of high worker productivity, reliable access to high quality fabrics, short production and delivery cycles, and efficient public institutions (EIC, 2007).

Cambodia's garment competitiveness could also be affected by national and global factors, such as the national macroeconomic environment, global trade policy (elimination of the quota system and safeguard measures), and to some extent, consumer ethics on good labor compliance (EIC, 2007).

3.1.2 National Competitiveness of Cambodia

In the context of globalization, EIC (2007) states that competitiveness has become the main concern for all countries in order to achieve high growth and prosperity. The definitions and sources of competitiveness have to be interpreted in different ways, depending on many dimensions. The World Economic Forum (WEF), for example, thinks of competitiveness as a collection of factors, policies and institutions, which determine the level of a country's productivity and that, therefore, determine the level of prosperity attained by an economy. The most well–known and comprehensive tool for a cross–country competitiveness comparison has been the model developed by WEF, known as the Growth Competitiveness Index (GCI), which emphasizes the ability of a nation to grow through its macroeconomic environment, public institutions and technology. Cambodia has been included for the first time in 2005 in the GCI, thanks to the partnership between WEF and EIC.

Table 3.2 shows the national competitiveness of Cambodia is very weak, ranking 112th among 117 countries included in the global index. Cambodia is close to Bangladesh (110th), but quite far behind China, India, Indonesia, and Vietnam. The country's poor performance is mainly due to poor public administration, lack of rule of law and high levels of corruption. Cambodia ranked 115th in the WEF's corruption index, just before Chad (116th) and Bangladesh (117th).

Table 3.2 Countries' Ranks in the Growth Competitiveness Index (GCI)

Country	GCI	Macro Environment Index	Public Institution Index	Technology Index
China	49	33	56	64
India	50	50	52	55
Indonesia	74	64	89	66
Vietnam	81	60	97	92
Bangladesh	110	83	117	101
Cambodia	**112**	**104**	**114**	**105**

Source: WEF, Global Competitiveness Report 2005–2006

In addition, Cambodia is also ranked 104th in the macroeconomic index, although the country's economic growth was very strong during the last 10 years (8.2% annually). This weak performance is mainly caused by the high interest rate spread, and the difficulty of private firms to access loans (EIC, 2007).

3.1.3 Cambodia's Business Competitiveness Index

EIC (2005) states that when considering business competitiveness, the US is the most competitive country, graining first position in the Business Competitiveness Index (BCI) by Prof. Michael E. Porter. It is followed by Finland, which is more competitive in terms of growth ability, according to the WEF, while Cambodia is 109th out of the 116 countries in the Business Competitiveness Index by Prof. Michael E. Porter. This rank implies that Cambodia's microeconomic foundation is too weak to yield competitive companies in the international markets. There is a link between the way a company operates in Cambodia and the quality of the country's national business environment. Unfavorable business conditions make Cambodia noncompetitive to Bangladesh, Vietnam, China, Indonesia and Thailand as shown in Table 3.3.

Table 3.3 Business Competitiveness Index (GCI) for Selected Countries, 2005

Country	BCI	Company Operation and Strategy	Quality of National Business Environment	2004 GDP Per Capita (PPP-Adjusted)
United States	1	1	2	39,498
Finland	2	9	1	29,305
Singapore	5	14	5	26,799
Japan	8	3	10	29,906
Thailand	37	35	37	28,172
Indonesia	59	50	59	9,666
China	57	53	58	5,642
Vietnam	80	81	77	2,570
Bangladesh	100	99	101	1,875
Cambodia	**109**	**103**	**107**	**2,074**
Chad	116	116	116	1,555

Source: WEF, Global Competitiveness Report 2005–2006, September 2005

3.1.4 The Year End of Cambodia–Clothing Manufacturers

The Cambodian garment sector after the phase–out of the quota restriction at the end of 2004, competitive exporting countries with comparative advantages in Textiles and Garment (T&G) production have been restrained from expanding under the MFA quota system, while relatively uncompetitive producers have enjoyed guaranteed market access (up to the quota limit) to developed country markets (Spinanger, 1999). Cambodia–Clothing manufacturers dread New Year's Day 2005. That will be the first day they have to compete with China, no holds barred, to supply their most important market, the United States (Brooke, 2004).

Many Cambodian people are worrying about losing or gaining both their national economic growth and employment from the garment sector when Cambodia became a WTO member, and the sector would have to compete with the larger countries like China and India.

However, successes or failures will depend to a large extent not only on Cambodia's ability to balance its rights and obligations under the Multi–Trading System (MTS) but as well on how well the country could position itself to take advantage of the broad opportunities and challenges of regionalism and globalism (Sok, 2001).

Although government officials are optimistic that the country will retain jobs created by the volatile garment industry, the Minister of Commerce, H.E Cham Prasidh maintains that, "after joining the WTO, the garment industry will not move anywhere, but will stay in Cambodia. While some garment factories want to move to China, there are twenty–six new companies applying to open new factories. So the existing will stay and the newcomers will move in because there will be quota free conditions after 2004. Cambodia introduces a strategy to link international trade to labor conditions (WTO, 2004)."

However, the situation does not seem to be so pessimistic, at least in the short–run, because the United States and the European Union have already imposed safeguard measures on Chinese exports of textile and garment products. Cambodia still maintains some preferential treatment by major importing countries on its exports through generalized system of preferences (GSP) and compensation for labor standard compliance. Even though it admits that the labor–intensive garment manufacturing industry does not require a large amount of investment to set up factories, Cambodia needs to provide incentives that invite investors with advanced technology and big capital to produce much higher value–added textiles and garment items. Upgraded foreign direct investment will necessarily contribute to promoting a technological shift toward the Cambodian textile and garment industries (KIEP & KOICA, 2006).

3.1.5 Competitiveness of the Cambodian Garment Industry

The survival of the garment industry in Cambodia depends on its ability to compete in a quota–free world. This requires maintaining high labor standards to capitalize on Cambodia's reputation as a "sweatshop–free" garment producing country, which is increasingly becoming a factor for consumers in the western countries. It also requires that costs, both production–related and bureaucratic, are lower than those of competitors are. The table 3.4 below compares Cambodia's labor costs to those of its main competitors. Cambodia has competitive advantage in terms of labor costs. The country's hourly wages are the lowest – between US$0.27–0.35 for both the textile and garment sectors.

Table 3.4 Benchmarking of Labor Costs

Competitive Factors	Cambodia	Bangladesh	China	India	Indonesia	Pakistan	Sri Lanka
Wages (US$/hr including social charges)							
Textile Sector	**0.27-0.35**	0.30-0.54	0.44-0.76	0.30-0.62	0.30-0.42	0.37-0.42	0.42-0.50
Garment Sector	**0.27-0.35**	0.28-0.36	0.32-0.48	0.30-0.45	0.29-0.36	0.32-0.39	0.32-0.40

Source: ADB Report, p. 39

In Bangladesh, Cambodia's nearest competitor, the wages of textile producers are US$0.30–0.54, and garment producers earn US$0.28–0.36 (Business Issues Bulletin No.5). While Cambodia has marginally lower labor costs, labor accounts for only 15% of total input costs. By comparison, materials and accessories account for 65% of input costs, as most have to be imported. This subjects garment producers to an array of bureaucratic expenses. In addition, productivity of Cambodia's garment workers is very low relative to competitors. Productivity of Cambodian garment workers is only 25% of German equivalents (the best performers). Garment workers in Indonesia, Thailand and China, the countries that are Cambodia's strongest competition, are at least twice as productive workers in Cambodia (World Bank, 2003).

On the other hand, the social, economic, and political ramifications of potential widespread factory closings in response to global garment market shifts are great concern to industry players and policy analysts alike. Such concerns have stimulated the formulation of strategies for reinforcing the Cambodian garment industry's competitive edge. The Government of Cambodia is committed to improving the investment climate, reducing costs associated with corruption, and implementing a garment sector strategy (Konishi, 2003; World Bank, 2004; Stuart–Smith, et al., 2004).

Cambodia is also committed to preserving Cambodia's niche as a socially responsible manufacturing platform from which to source garments, whose importance to the U.S. and EU buyers was noted in a survey conducted (Foreign Investment Advisory Service (FIAS), 2004–05).

3.2 Analysis of Cambodia's Garment Industry Based on Diamond Model

The factors determining competitiveness of an industry put forward by Michael E. Porter are discussed one by one in the following section:

3.2.1 Factor Conditions

The factor conditions are composed of two parts: basic factors and advanced factors. The basic factors include geographic conditions and natural resources, infrastructure and energy supply, and basic labor force resources and local financial market. Advanced factors consist of technical equipments, education, innovation activities, capital operation and the like.

1. Basic Factors

1) Geographic Conditions and Natural Resources

The Kingdom of Cambodia is situated in the Indo–Chinese Peninsula on the continent of Asia. The neighbors of the kingdom of Cambodia are Viet Nam, Thailand and Laos PDR. Cambodia is small (181,035 sq kilometers), predominantly rural with a population of about 14 million people. The GDP per capita was estimated to be 454 USD in 2005 and 35 to 40% of the population was estimated to remain below the poverty line (WB, 2007).

It has a good climate without snow, violent storms, earthquakes, volcanic eruptions, and so on. The country is divided into four regions/areas: the central plain area, plateau area, mountain area, and coastal area. The average temperature is 27 Degree Celsius (78°F). The weather is humid. Cambodia has only two ports, Sihanoukville Port about 230 Km from Phnom Penh, Dried Port in Phnom Penh.

2) Physical Infrastructure

Cambodia's infrastructure is viewed as one of the poorest in the region. Both transportation and energy costs significantly increase production costs. The number of shipping companies are still limited, which prevents competition and keeps prices high. Moreover, Cambodia is also naturally disadvantaged because of its far distance to the important markets like the US compared to China, Hong Kong, and Taiwan. Cambodia's infrastructure is rated low & only comparable to Bangladesh, while lagging behind other competitor countries such as China, Indonesia & Vietnam. Railroads, port facilities, power supplies & the postal system are just some of the areas considered underdeveloped & require substantial investment.

Table 3.5 Private Sector Perception on Infrastructure Quality

	General Infrastructure	Railroads	Ports Facilities	Power supply	Postal System	Telecom
Bangladesh	2.7	2.6	2.6	2.3	2.7	2.5
Cambodia	**2.4**	**1.5**	**2.7**	**2.6**	**2.7**	**4.7**
China	3.2	3.6	3.6	3.7	5.0	5.5
India	2.9	4.2	3.1	3.3	4.9	6.3
Indonesia	3.3	3.1	3.3	3.6	4.1	4.4
Vietnam	2.6	2.3	2.8	3.5	5.3	5.8

Source: World Economic Forum, Executive Opinion Survey 2005–2006

Note: 1: The worst, 7: The best in the world

Telecommunications is the only sector viewed as acceptable by the private sector. **Table 3.5** Private Sector Perception on Infrastructure Quality. The poor supporting environment contributes to the long–lead time of Cambodia's garment exports. The raw materials are imported, and Cambodia's location seems likely to be disadvantageous to its export–oriented markets to the US and the EU (EIC, 2007).

3) Basic Labor Force Resources

Cambodian labor forces are moving from the rural areas to work in Phnom Penh and they are most uneducated. Businesses can very easily collect the work force. EIC estimates that the total labor force was 6.5 million in 2005, around 47% of the country's population. The average new entrants in the labor market are around 250,000 per year. In 2005, it is estimated that about 5% of the country's labor forces are garment workers. Requiring non–skilled labor. Cambodia's labor supply can therefore support the industry's possible expansion (EIC, 2007). However, with regards to the Cambodian education system, it is considered as part of human resource management. If the overall education is more or less positive, the country has the potential and the framework to be more competitive if only the education system can be geared towards improving skills and education of school graduates. The flexibility of hiring and firing workers seems depend on types of industry. Moreover, Cambodia's garment industry is employing to labor forces, so human resource development is necessary to improve productivity. Currently, most local workers are illiterate and female workers are dominant in the garment factory positions, but it is difficult to find local managers in the foreign invested firms, and most of them are inflow from foreign countries like China, Taiwan, Hong Kong, Malaysia, Singapore, and so on. In other words, the lack of educated laborers is the most common problem faced by foreign investment companies. Skills are significant factors for employment in the society. If a nation does not adequately provide its skills of human resources for what investors want and need, it can lose opportunity to gain benefits of doing business and its competitive advantage in the global market (KIEP & KOICA, 2006).

4) Local Financial Resources

The financial sector remains a bottleneck for development in Cambodia owing to a lack of public confidence in the banking system and the lack of lending. The banking sector provides a wide range of banking services but at a relatively high cost to customers. Following the implementation of the National Bank of Cambodia's bank re–licensing program in 2000, the commercial sector consists of 13 commercial backs, 4 specialized banks (rural development), 10 micro–finance institutions and 4 insurance companies, including the government–owned Cambodian National Insurance Company (CAMINCO). Cambodia has a relatively low rate of banking intermediation, with bank loans and deposits equivalent to only 8 and 10% of GDP respectively. The percentage of cash to total bank assets is relatively high at 19%, the volume of non–performing loans is high and rising, and lending spreads are also high, with interest rates on commercial loans often in excess of 20% (UN et al., 2004). However, EIC (2005) states that Cambodia's financial resources are seen as improving. The level of sophistication of the local financial market is still at the infant stage. All bank executives in the survey admit that the local financial institutions fall far behind that of the international banking institutions in terms of banking products and services.

2. Advanced Factors

In general terms, based on the empirical survey, the levels of technology employed in Cambodia are at the lowest level in sewing and inspection. Few attachments are applied to the machines that could aid workers to operate more effectively, both in volume and quality terms. This is characteristic of countries where labor costs are very competitive as management considered it cheaper to employ people than to invest in machines or specific machine attachments. A few garment firms in Cambodia work with Computer Added Design (CAD) systems and laying/cutting machines to minimize waste, but this type of technology is not widespread (MOC and ADB, 2004).

1) Technology

Technical skills include the ability to operate fabric spreading and cutting equipment, sewing machines (e.g., single–needle, double–needle, overlock, zigzag, cover stitch, bartack and shapetack, button and button–holing, and more specialized machines), and pressing equipment, and an understanding of quality control standards and procedures. Job applicants may be screened for technical basics such as visual acuity, color recognition, eye–hand coordination, and manual dexterity (USAID, 2006). However, some factories improved manufacturing productivity of the equipments by using soft technology such as Computer Added Design (CAD) and Computer Added Manufacturing (CAM) systems and laying/cutting machines to minimize waste, but this type of technology is not widespread. This is characteristic of countries where labor costs are very competitive as management considers it cheaper to employ people than to invest in machines or specific machine attachments (MOC and ADB, 2004).

2) Innovation Activities

FIAS (2005) states that the combination of labor standards and innovative incentives in the US Trade Agreement gave Cambodia a market advantage. This advisory project was to test the assumption that there is an export niche market based on labor standards, combined with the normal criteria of price, quality and speed to market. EIC (2005) states that Cambodia's companies are observed to lack aggressiveness in absorbing new technology. The level of the country's technological readiness is, more or less, behind the other countries, including Bangladesh. The lack of companies spending on research and development (R&D) and business collaboration with universities are seen as the other two significant weaknesses, preventing Cambodia from higher productivity growth.

3) Talents and Education

In this case, concerning the quality of Cambodian human resources, Cambodia is considered equipped with an education system. Cambodia's education and training sectors are under two separate ministries of government. The Ministry of Education, Youth, and Sports (MOEYS) is responsible for early, primary, secondary, and higher education, while the Ministry of Labor and Vocational Training (MOLVT) is responsible for the country's technical vocational education and training program, and both the ministries are managed by labor law. Technical and vocational education and training (TVET) managed in the Department of TVET within MOLVT. TVET policy and planning made by the National Training Board (NTB), with financing for skills development available through the National Training Fund under the ADB–Funded Basic Skills Project, which ran from 1995 to 2003 (ADB, 2003). GMAC (2007) says that there are several training providers giving training relevant to the textile and garment industry such as International Labor Organization on the Better Factory in Cambodia (ILO–BFC), IFC–MPDF, VBNK, USAID–GIPC, GMAC (Funded by AFD) and JODC. None of the 52 universities and institutes (19 public and 33 private) offers any degree or diploma programs related to the garment industry as reported in a survey on the Education sector commissioned by the Garment Industry Productivity Center (a project of USAID Cambodia) and carried out by the Economic Institute of Cambodia in 2006.

Referring to AFD–GMAC Collaboration, Agence Francais de Development (AFD) has signed an agreement with the Government of the Kingdom of Cambodia to provide funding support to improve the competitiveness of the garment industry from 1 Aug 2006 to 31 March 2008. A series of training programs have been planned and implemented since October 2006. All training conducted by experienced trainers from various countries such as Singapore, South Africa, UK, Canada, India, Geneva and US. The training is developed and delivered for the intent of improving the competitiveness of the industry through upgrading the skills and knowledge of each individual of the industry (GMAC, 2007).

However, technical training is lacking at all personnel levels: senior managers, middle managers, technicians, supervisors, sewing operators, cutting–room personnel, and pressing, folding, and packing operators. Although sewing machine mechanics usually receive some basic training, these training needs should be supplemented to ensure effectiveness and comprehensiveness (USAID, 2006). The country's leading talents are willing to pursue opportunities within the country, an encouraging sign for the country's future development. In view of these constraints, it is crucial for Cambodia to reinforce the quality of its education system, as well as its local business schools to meet business requirements (EIC, 2005).

4) Capital Operation

KIEP & KOICA (2006) reveal that the Cambodian garment industry is major foreign investor owned (about 90–95%) and the rest is Cambodian owned. Cambodia has 14 licensed commercial banks, all of which are private, except for the state Cambodia–owned Foreign Bank of Cambodia and the Rural Development Banks. There are also a number of specialized banks. However, The World Bank (2003) states that Cambodia is a cash–based economy, and local commercial banks' share of working capital is negligible.

3.2.2 Demand Conditions

1. Domestic Demands

In local demand, Cambodia has a small domestic market, due both to its small population base and to the fact that this population is only 18% urban, compared with 25% in Vietnam and 22% in Thailand. Cambodia's consumers are increasingly sophisticated and exposed, but they will contribute the critical mass necessary to drive investment in a limited number of sectors (WB, 2004). However, the market condition is one of the most important factors. Investors are waiting to see whether the country is suitable for their investments, assessing the size of domestic markets and the potential for economic growth. The natural resources and geographical locations are also important as they affect the supply of production inputs and the product distribution network, which entails transportation costs resulting in product competitiveness (Hing, 2006).

2. International Demands

Cambodia's garment exports industry began in 1995, with just US$20m in exports. By 2004, the country was exporting garments worth $1.6b. Cambodia's production is less than 1% of the global industry, but has become the biggest hard currency earner in the country, representing 80% of exports and 12.4% of GDP (FIAS, 2005).

The survey sample is representative of the industry in terms of the distribution of export markets. More than two–thirds of exports are directed to the U.S. market, while a bit less than one–third is directed to the European market (USAID, 2006). In 2005, Cambodia's robust economic performance continued in 2006. Real GDP growth is estimated at about 10.5%, a third consecutive year of double–digit growth. Growth continues underpinned by garment exports, tourism, construction, and agricultural expansion. The garment sector, which employs 10% of the labor force and which accounts for 14% of GDP, expanded further, with exports rising by 20% in 2006 (WB, 2007).

Notably, the Cambodian garment industry sells its entire production to export markets, while Cambodians import garment products for domestic consumption. The United States and the European Union represented 64% and 29% respectively of total garment exports in 2004. Brand label clients—The Gap, Nike, Reebok, Adidas, Abercrombie & Fitch, Marks & Spencer, Wal–Mart, Sears, Columbia, Perry Ellis, Liz Claiborne, and Nautica figuring among them—are an important component of the business. For instance, it is reported that as much as one–third of Cambodia's garment exports are manufactured for The Gap. (USAID, 2005).

3.2.3 Related and Supporting Industry

Cambodia has the cheapest labor supply among its competitors. Besides the cheap labor supply, Cambodia also has a reputation of good labor compliance with Cambodian garment factories and has received various forms of incentives provided by the Government of Cambodia. The garment factories in Cambodia enjoy the import tax exemption and holiday tax on profit. The policy has proved successful to some extent in attracting foreign investors to the garment industry in Cambodia (EIC, 2007).

Training Institutes: Although the garment sector is the engine for growth in Cambodia, investment in systematic skill development of garment employees is not commensurate or suitable with the importance of the garment industry to the economy. Training workers is generally informal. There is no systematic training for entry into garment factories. Either potential workers pay a small fee to an outside tailor, usually USD $1 per day, for 5 to 7 days training to learn to stitch in straight lines, or workers receive on the job training as trainees after recruited. In the case of the latter, a new employee works alongside experienced workers, and will earn wages of about USD$1 per day, usually for a period of up to 3 months. The average earnings of an apprentice (trainee) are USD$25–USD$30 per month for 48 hours per week (208 hours per month). The only formal training institute is the Cambodia Garment Training Center (CGTC), located in the center of Phnom Penh, which opened in April 2002. CGTC managed by GMAC and supported by eight organizations. There are (1) the Cambodian Ministry of

Commerce, (2) the Cambodian Chamber of Commerce, (3) Garment Manufacturers Association of Cambodia (GMAC) and (4) Five Japanese organizations (JETRO, Marubeni, JUKI, JODC, and AOTS) (MOC and ADB, 2004).

Lack of a supporting industry, especially for the textile industry, is another disadvantage for Cambodia. Garment factories in Cambodia perform only the Cut, Make and Trim (CMT), while most of the raw materials and accessories are obtained mainly from China, Hong Kong and Taiwan. Although garment production is an important part of the country's industry, the textile industry is unlikely to play a supporting role in the economy due to a lack of investment. Encouraging a textile industry would benefit the industry as a whole since it could reduce the lead–time as well as production cost. It would further create additional jobs for thousands of Cambodians. However, many investors perceive investment in the textile industry as a high–risk investment, which requires huge capital investment. According to Mr. Van Sou Ieng, the president of GMAC, there is initial interest from investors for a textile industry but they do not pursue their interest due to political instability, poor infrastructure, high utility costs (especially electricity), low levels of technology, and the perceived restricted labor law (EIC, 2007). However, competitive advantage comes from a firm's ability to perform activities more distinctively or effectively than rivals (Pitts and Lei, 2006). Porter (1998, 1990) expresses that the decisive characteristics of the nation that allow its firms to create and sustain competitive advantage that exceeds the average for its industry, the firm is said to possess a competitive advantage over its rivals. The goal of much of business strategy is to achieve a sustainable competitive advantage. Michael E. Porter also identified two basic types of competitive advantage: Cost advantage and Differentiation advantage: A competitive advantage exists when the firm is able to deliver the same benefits as competitors but at a lower cost (cost advantage), or deliver benefits that exceed those of competing products (differentiation advantage). Thus, a competitive advantage enables the firm to create superior value for its customers and superior profits for itself (Porter, 1998, 1990).

A 2005 Press Release reports that "Cambodia's improved compliance with international labor standards, monitored by an independent body, is offering the garment sector a competitive advantage that is lacking in other areas" stated Sally Paxton, Executive Director of the ILO. "This gives consumers and companies the necessary confidence to choose Cambodian–

made garments," the ILO monitoring arrangements are unique, providing a source of independent evidence that buyers can use to make sourcing decisions. The ILO publishes regular reports naming factories and identifying their progress on suggestions for improvement. When asked to rate the performance of specific countries on each of the sourcing criteria listed, Cambodia clearly ranked ahead of regional competitors on labor standards. Other key results:

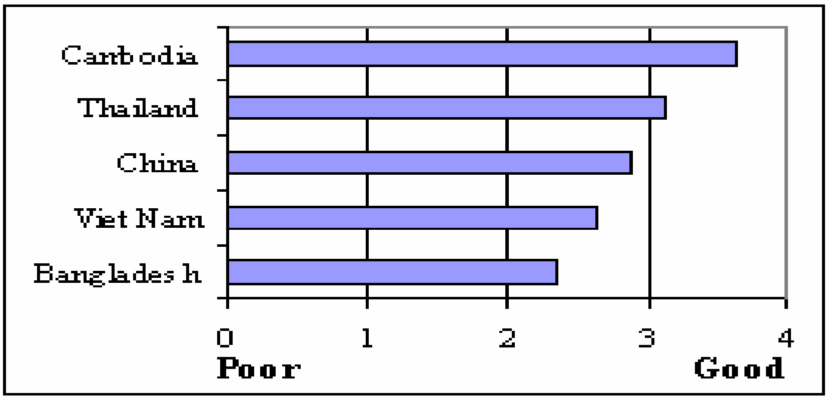
1. Buyers consider that Cambodia (3.65) has an advantage over Bangladesh (2.35), Thailand (3.13), Vietnam (2.64) and China (2.87) on labor standards.

2. Other advantages enjoyed by Cambodia over its competitors are tariff preference and union rights.

3. Cambodia ranks less well on access to international materials and supplies; political and economic stability; and customs efficiency.

Behind the success of Cambodia's garment industry is its status as an industry with good labor practices. Under the bilateral trade agreement, the US promised Cambodia better access to US markets in exchange for decent working conditions in the garment sector. The ILO project, Better Factories Cambodia was established in 2001 to help the industry make and maintain these improvements. The project has become a useful tool in attracting major Western buyers, allowing Cambodia to capture the niche ethical buying market.

Figure 3.5 reflects Cambodia's advantage over its competitors, since it already has a progressive labor strategy, supported by major buyers. According to the World Bank Survey in 2004, Cambodia's labor standard rates prices much better than its main competitors such as Thailand, China, Vietnam and Bangladesh, and it was first amongst other reasons for buyers to source from Cambodia. This highlights the fact that a good labor practice is as important as or even more important than competitive prices. Buyers believe that improved labor standards have positive effects on various aspects such as accidents, workforce productivity, product quality, worker turnover, absenteeism and quality of applicants for jobs (EIC, 2007).



Source: World Bank Survey, 2004

Figure 3.5 Countries' Compliance with Labor Standards

In other words, MOC and ADB (2004) state that the value chain especially takes a business sector perspective and, when applied, can provide a useful bridge between the business sector and the public sector in terms of identifying the areas of reform necessary to strengthen the supply chain. In the Cambodian context, a comprehensive analysis of various supply chains has recently been completed (See in Appendix E).

According to Singleton (1997, p.73), the most important related and supporting industries to the garment industry are the production of machinery, materials, the fashion sector, and relevant services and facilities. All of these parts are crucial factors to support and enhance the competitiveness of Cambodia's Garment Industry.

1. Cloth and Auxiliary Material Supply

The cloth and accessory materials are mostly imported from South Korea, Hong Kong, Taiwan, China and ASEAN countries, but a little is produced in home. Cambodia has no upstream industry for textiles (KIEP & KOICA, 2006; EIC, 2007). In addition, GMAC, (2007), Cambodia has no suppliers in fabric, threads, accessories and trims, and if they were available, they would be very expensive or have limited quantities.

2. Machinery Suppliers

The garment machineries are imported from various countries. Because the garment industry in Cambodia is still relatively young, the average condition of the equipment is reasonably good. However, machines are typically operated at low levels of efficiency. This is often due to deficiencies in equipment maintenance. Lack of investment in maintenance, plus ineffective spare parts stock control, often leads to considerable lost production potential (USAID, 2006).

3. The Specialized Markets

EIC (2005) reveals that a large proportion of the sample companies feel that access for exported Cambodian products to the international market is limited to only a small number of foreign markets. Usually international distributions and marketing take place through foreign companies. Marketing is another weak area for companies operating in Cambodia.

FIAS (2005) states that the Royal Government of Cambodia, the Garment Manufacturers Association of Cambodia, the US Government and the International Labor Organization agreed an innovative project designed to improve labor standards, to monitor improvements, and to report on them. Over a five year period, the project succeeded in improving compliance with labor standards and in gaining quota bonuses for Cambodian garment manufacturers. FIAS's survey results (2005) shows that key overseas buyers from Cambodia's garment industry currently plan to retain or increase their purchasing and not withdraw, as many Cambodian factory owners fear. 60% of the buyers interviewed said that they plan to increase their garment purchases from Cambodia, and 40% said that they will "wait and see." None had plans to buy less, and of the buyers interviewed, a greater number of European buyers (83%) plan to increase their purchasing orders. This is more than American buyers (37%) who tend to have more of a "wait and see" attitude.

4. Association and Agency

The success of the garment sector has been dependent on both formal and informal institutions that link Cambodia with network partners, provide trust, and enforce terms of transactions. Formal institutions exists to establish and authenticate the country of origin to manage quota allocations, to verify compliance with labor standards, to verify fulfillments of quotas both on the Cambodian side and in the export destination, to verify compliance with duty exemptions, and to manage quality. The Ministry of Commerce is the Ministry most directly involved in the garment industry. The ministry finds open free markets by negotiating agreement with partners as well as facilitating the issuing license (C.O or C.I) to those markets directly. The ministries of Labor and Vocational Training, Women's Affairs, and Industry, Mines, and Energy also have strong interests in the industry. Within the latter, the National Productivity office, part of the Asian Productivity Organization, also shares interests. Whereas, a private sector as the Garment Manufacturers Association in Cambodia (GMAC) is by far the most effective business association in Cambodia playing a very active role in negotiating the US–Cambodia Bilateral Textile Agreement. GMAC is also raising policy issues with the Government, Co–Chairing the Export Processing and Trade Facilitation working group, developing policy approaches, sharing potential solutions to problems of logistics and shares information on market conditions among 192 or so active members. While not explored in depth, it is likely that informal institutions such as linguistic and cultural linkages with members of the garment industry outside of Cambodia play a key role in facilitating trade. The key issue is to make the formal institutions more effective and efficient. Trade facilitation costs particularly pose a threat to the viability of this sector, and any sector that exports in cost–sensitive markets (WB, 2004).

5. Culture and Fashion

The Cambodian garment industry has no well–developed garment culture. The garment fashion has implemented under AFD–GMAC collaboration through Agence Francais de Development (AFD) has signed an agreement with the Government of Cambodia to provide funding support to improve the competitiveness of the garment industry. However, Cambodia's firms are loser to international fashion trends and to technology due to their links to their parent firms. Through market research activities in collaboration with TaF.tc, a collation of style from various fashion markets such as London, Paris, Milan, New York have been condensed into a DVD for distribution to members upon request. A bi–annual color and style presentation was conducted to keep GMAC membership updated on the trends (GMAC, 2007).

3.2.4 The Industry Strategy, Structure and Rivalry

Nations will tend to succeed in industries where the management practices and modes of organization favored by the national environment are well suited to the industries' sources of competitive advantage. The attitudes toward authority, norms of international interaction, attitude of workers, and social norms also have impact in a firm's competitive advantage. The important national differences in management practices and approaches occur in such areas as training, background, and orientation of the leaders, group versus hierarchical style, the strength of individual initiative, the attitude toward international activities, and the relationship between labor and management (Chandler, 1986).

1. The Structure of the Cambodian Textile and Clothing Industry: Labor demand and supply forces in Cambodia's garment industry center around the over 250, mostly Phnom Penh–based factories that provide Cambodian workers employment in the Cut, Make, and Trim (CMT) operations. Up and downstream product development and apparel management operations – such as marketing, fashion research, merchandising, product design and development, sourcing of fabrics and findings, finance, buyer relations – are typically handled by parent offices back in the home country or an apparel sourcing center such as Hong Kong, Malaysia, Singapore, or Taiwan. Of the estimated 300,000 employed in garment factories, over 90% of jobs involve mostly female, minimally skilled, production workers in several departments, including cutting, knitting, sewing, quality control, and finishing. However, factories also employ skilled workers, both men and women, to support and manage the factory at two levels: as supervisors on the production floor and as production planners and engineers, technicians, merchandisers, operations support, logistics experts, and management (USAID, 2006). The textile and clothing industry in Cambodia is characterized by nine features enumerated in the box 3.2 (See Appendix F).

2. Strategy: The general garment sector strategy is dependent on garment exports for at least 70% of foreign currency earnings. Cambodia attracts foreign direct investment in the garment and textile sectors in order to bring technical knowledge and market access. In addition to seeking access and technical knowledge though FDI, Cambodia is taking steps to raise productivity levels and to make backward linkage investments into the textile sub–factors. In particular, all competing countries, with the exception of Cambodia, have invested increasingly in textile production in order to have greater self–sufficiency in fabric supplies to the garment industry. Moreover, the government and business communities are undertaking bilateral negotiations to gain preferential access to the main markets such as the US, EU, Canada and Japan. These include efforts to be deemed eligible for duty free market access in the US and for more favorable (or less restrictive) rules of origin under the EU EBA program (MOC and ADB, 2004). The combination of complex business regulations and corruption has been cited as a major concern by the industry. The Cambodian government's garment industry strategy paper suggests

that the costs of excessively complex import–export procedures, corruption, and bribery account for as much as 7% of total sales value (Stuart–Smith et al., 2004, v). However, the government of Cambodia has collaborated with the World Bank, IFC, the EU, IMF and other donors, in forming a “Working Group on Trade Facilitation and Investment Climate” (MOC and ADB, 2004).

In other words, the Garment Manufacturers Association of Cambodia should works closely with the government of Cambodia to be proactive in its developing strategy and policies on competitiveness. The development strategy should be focused on expressing the competitiveness of the garment industry, on the developing policies to address key weaknesses and to harness key opportunities, recognizing critical interconnections between all the policy measures. These measures include (1) strengthening institutions and building an information base, (2) maintaining and improving market access, (3) reducing transactions costs, (4) shortening lead times and improving business operations, (5) improving the marketing environment, (6) enhancing labor productivity and empowering women, and finally, addressing other major cost items (MOC and ADB, 2004).

3. Rivalry: In any rivalry, it creates pressure on the firms making the same category of products to improve and innovate to win the main markets. Likewise, vigorous local competition not only sharpens advantage at home, but also pressures domestic firms to sell abroad in order to grow. In particular, when there are economies of scale, local competitors force each other to look outward in the pursuit of greater efficiency and higher profitability. The presence of domestic rivals nullifies the types of advantage that come simply from being in the nation, such as factor costs, access to or preference in the home market, a local supplier base, and costs of importing that must be borne by foreign firms (Porter, 1990).

In addition, Johansson (2003) states that one particular country that has specific advantage (that can also be a disadvantage) can experience the so–called country–of–origin–effect. The effect refers to the impact on customers of the “made–in label”, or more generally, a branded product or service that has perceived from products or services of countries with the positive image tend to be favorable, while products from less positively perceived countries tend to be downgraded.

Cambodia’s Garment Industry has confronted with two fierce competitions in the domestic and international markets. Cambodia's position of specialization in the global production network depends on competitiveness vis–à–vis other neighboring competitors. South Asia as a whole has become the most competitive field in the production of textile and clothing products, in which many countries with similar infrastructure and technology participate. In the recent statistics on the textile and clothing industry, the region has segmented into several products without a salient market leader; thus, there exists neither integration nor intra–industry trade within the region. Only competition without cooperation prevails (Kiep & Koica, 2006).

3.2.5 Government

The Royal Government of Cambodia has paid great attention to this sector and has concentrated on the Cambodian garment industry to improve the development of its competitive edge in its global niche market. The government has a key role to play in negotiation with the U.S and E.U governments to conciliate the US and the EU markets access with minimum tariff import rates, and duty free or preferences for the major export–oriented garment products in Cambodia. In addition, the government has created a "Government and Private Sector Forum." This forum institutionalizes systematic consultations between private and public sectors. It can have positive, long–term effects to understand the lack of competitive edge in market access and to resolve the facing barrier trade. For instance, the "Everything but Arms" scheme that the EU offers Cambodia (and 48 other countries) the opportunity to export all products except arms free of quota and import duties. Although other countries can export garment products to the EU free of quota, they still have to pay import duties. Nevertheless, competing after 2004 requires that the garment sector in Cambodia reduce costs and increase the value of our garment products. Both require that the government take proactive measures to improve the business environment to protect the sector's investments. For its part, the government has established a "trade facilitation" working group to work on reducing the amount of paperwork, cost, and time required for importing and exporting goods. We are also working hard on market access for Cambodian garments by marketing Cambodia as a producing country that practices "fair trade." Assistance has been sought from France to publicize our fair trade practices, in cooperation with the ILO, in Europe. H.E. Mao Thora, Undersecretary of State, Ministry of Commerce (Business Issue Bulletin No.5). In other words, in order to promote textile manufacturing including weaving and other garment products, and footwear exports, the government has granted incentives to those industries. The incentives, provided to export–oriented companies, include an annual duty exemption on imports of machineries, and inputs such as raw materials and accessories directly used in the production. Garment manufacturing is a leading exporting industry in Cambodia. In the near future, the Cambodian Investment Board, Council for the Development of Cambodia (CIB/CDC) with support from FIAS/World Bank will establish an automatic system for import duty exemption of production inputs, which is the so–called Duty Suspension Scheme (DSS). This scheme will shorten tremendously the time spent for administrative procedures and will facilitate investors to apply for the master list of import items on the internet (Hing, 2006).

More and more, the Royal Government of Cambodia (RGC) has focused on the effective implementation of its governance action plan, which covers four crosscutting areas of reforms: (1) combating corruption, (2) Judicial and legal reform, (3) civil service reform covering decentralization and de–concentration, and (4) reform of armed forces, especially decentralization (UN et al., 2004). However, the Cambodian government policy's lack of a supporting industry, especially for the textile industry, is another disadvantage for Cambodia (KIEP & KOICA, 2006; EIC, 2007).

3.2.6 Chance

The Cambodia's garment industry has been affected on both opportunities and challenges through the globalization shift in the international competition context. Mr Tuomo Poutiainen states that the Cambodian garment industry now faces increasing worldwide competition, and the big challenge is to lift quality, productivity and profitability in ways that build Cambodia's reputation for good working conditions (Better Factories Cambodia (BFC), 2007). If those firms want to resolve the new stricter changes of international buyers' demands successfully, the proper firm strategy should be implemented with upgrading its capabilities of competitiveness, strengthening its productivities to stay quality products, delivery lead–time, and making good marketing strategy in communication with trade partners. Mr Poutiainen said "To access the main oversee markets, Cambodia's garment firms have to retain their working conditions and implement labor law with compliance, no sweetshop, and existing international brands. However, 'Improving productivity helps make the industry more competitive, but Cambodia still needs to maintain its niche as an ethical producer because competing on price or high labor standards is not enough. Moreover, Cambodian enterprises must work harder to improve both productivity and garment quality" (BFC, 2007).

Therefore, enterprises are to improve their lack of the above–mentioned issues to overcome the competitive export–oriented garment markets and to reap their fruitful benefits in the global market. Moreover, both government and private sectors are to cooperate with good interrelationship and to settle the problems on time and in the proper way for this sector to prosperity.

3.3 Summary of Factors Influencing Cambodia's Garment Industry

Referring to the above discussion of the six different factors in the Cambodian garment industry, we prefer to make a brief summary of the factors analyzed and presented in Table 3.5 (See appendix G).

Strengths and Weaknesses

The Cambodian garment industry has two main aspects: Firstly, strengths are that Cambodian enterprises are clustered as the Garment Manufacturers Association of Cambodia (GMAC) with some acquired knowledge and experience in the industry, including within the semi–skilled labor force and strong offshore investors with technical and commercial know–how and capital resources. The Cambodian garment market is huge under GSP and MFN preferential regimes in terms of duty–free access–to the major global markets such as the United States, European Union, Canada, Australia, Japan, New Zealand and Norway, and a large pool of unskilled cost–effective labor–intensive available from the rural areas to support expansion of the industry if required. In addition, the government has created a "Government and Private Sector Forum." This forum can have positive, long–term effects to understand the lack of competitive edge in market access and to resolve the facing barrier trade.

Moreover, large levels of exports and experience in the export markets share a positive market image, especially in the area of labor utilization and compliance. On the contrary, the Cambodia's garment industry has some remarkable weaknesses with its operating business in the global competition context.

In competition, there is a lack of inter–industry linkages and there are few serious subcontractors and policy impediments to backward linkage development. In addition, export–

oriented market is far from the important US markets, and so it takes longer than for China, Hong Kong and Taiwan. Physical infrastructure is one of the poorest in the region with high costs of transportation and energy power and other utilities. There are no Cambodian lead investors in the industry and there are low level of human resource development and low skills base resulting in low productivity and higher than necessary costs as well as shortages of skilled middle management/shop floor supervision/skilled workers. Senior designers with domestic demand are small. Moreover, heavy use of expatriate supervisors, which leads to culture and communication gaps, whereas, the development of the supply chain and creation of high value added designers/trademarks accompanied by increasing marketing capacities must accelerate. Seriously low levels of local value's added, and there are low levels of technology. In addition, as for cloth and auxiliary material supply in garment sector, they are most imported from foreign countries. There are also high levels of official and unofficial transactions costs, especially in the import/export processes that damage the investment climate and employment growth.

CHAPTER 4

RESEARCH METHODOLOGY

The purpose of this chapter is to present the mode of procedure, research approach (descriptive, explanatory & evaluative research), sampling method, data collection method (primary & secondary data), questionnaire design, survey instruments, measurement of variables in the questionnaire, validation of data, and data analysis and interpretation.

This study aims to identify the major factors influencing competitiveness of Cambodia's garment industry based on modified version of the Porter's Diamond model and the GEM model. The main objective of the survey in this thesis is to illustrate business executives' operations in various aspects of strategic management decisions of internal firms. The survey collected information from the firms, which have been registered in the Garment Manufacturers Association of Cambodia (GMAC) and are situated in Phnom Penh city, Kandal and Kompong Speu provinces.

4.1 Mode of Procedure

The use of multiple sources minimized the weaknesses of any single approach (Lincoln & Guba, 1985; Yin, 1984). Using multiple sources also provided a better picture concerning how the product development process fits within the company. A combination of multiple sources of evidence provides a broader range of the subject and connections between each unit in the organization (Yin, 1984). Generally, there are two procedures in the thesis methodology. The first step is to find related theories in order to gain a thesis achievement. There could be previous researchers who studied theories of competitiveness to find out existing proper models that could explain and interpret the competitiveness of an industry in a region or nation.

At the same time, there also could be some related theories concerning the garment industry. Then, the second step is to apply theories affecting competitiveness of Cambodia's garment industry with both qualitative and quantitative methods. To conduct the research in a sophisticated academic way, this thesis will explain from many previous published dissertations or theses, journals, articles and books related to the competitiveness of the garment industry sector. By reviewing available materials and referring to other theses, it will enable a better understanding of how to proceed in this study.

4.2 Research Approach

There are two fundamental perspectives described (Saunders et al., 2003, p.85) in Research Methods for Business Student, namely empiricism and rationalism. The empirical way of thinking is an inductive method, which is suitable to use when no theory exists within the research area. The rationalistic way of thinking is a deductive method, which means the researcher starts from an existing theory. The theory creates a ground for a hypothesis that is thereafter testified through empirical studies.

The main factors influencing competitiveness is applied to existing theories to analyze the competitiveness of a specific industry in Cambodia.

The objective of the study is to apply by the applying existing theories to analyze the specific industry rather than to prove existing theories. The survey questionnaire is designed to identify some main factors that have an impact on competitiveness. These factors are similar to the hypothesis often used in the inductive way. By making a comparison to the concept of the above research approach, this approach is an inductive case study. A case study is a research on one or several reality situations, which can be examined by many perspectives. The case study can also answer to the questions: “Why?”, “What?” and “How?” The collection of data may include questionnaires, interviews, observations and documentary analysis. This is a good strategy for exploring and challenging existing theories and factors. This strategy could also provide a source of new hypotheses (Saunders et al., 2003). The survey conducted in this case study collects primary data relevant to the reality and context and it is carried out with the garment factories in the list of the Garment Manufacturers Association of Cambodia (GMAC). This type of case study examines factors of competitiveness by triad descriptive, explanatory and evaluative research.

4.2.1 Descriptive Research

Descriptive research usually involves the presentation of information in a simple form. Of the Statistical Package for Social Science (SPSS), procedures described in the two most appropriate descriptive research are **Frequencies** and **Means. Frequencies** present counts and percent ages for each variable. **Means** provides averages for numerical variables (Ticehurst and Veal, 2000).

4.2.2 Explanatory Research

Presenting descriptive data does not explain anything. To explain the patterns in data we must consider the question of causality and how analysis can address the issue of whether **A** was caused by **B.** SPSS lends it particularly to establishing the associations between variables and their strength and size (Ticehurst & Veal, 2000).

4.2.3 Evaluative Research

Evaluative research involves comparisons. If the survey findings are higher or lower than some external benchmark, external benchmarks may take the form of established performance standards, comparisons with previous years' figures or comparisons with similar programs elsewhere. The analysis called for is therefore relatively simple and generally descriptive in nature (Ticehurst & Veal, 2000).

4.3 Sampling Method

In this survey, **i**ndividual firms were conducted as the unit of analysis. The firms that are highly engaged in garment manufacturing and are exporting a considerable portion of their total output provided responses deemed appropriate. The Garment manufacturing firms located in Phnom Penh, Kandal and Kompong Speu Provinces in Cambodia.

According to operating the formula of Yamane, 1973

$$n = \frac{N}{(1+ Ne^2)}$$

Where: n is sample size, N is population of factories, e^2 is probability of error

N = 238 factories, e = error allowed = .05

$$=> n = \frac{238}{(1+238\,(.05)^2)} = 149 \text{ Factories}$$

Therefore, a random sampling procedure was used to select 150 of 238 firms from the business directory of apparel exporters of the entire Garment Manufacturers Association of Cambodia (GMAC) membership as of 2005.

4.4 Data Collection Method

This study collects data on structure and performance from garment firms through the sample survey. The objectives of the survey are to establish the main variables influencing the competitiveness of Cambodia's garment industry, particularly regarding strategic management decisions of internal firms to retain the competitive edge in the global markets. The survey conducted research in the field of the garment factories with the official letter from the Ministry of Commerce of Cambodia and a letter issued by Mae Fah Luang University. They were distributed to respondents asking for their cooperation in the purposes for making progress and enhancing competitiveness for both the government and firms in the garment sector.

The survey questionnaires were only in English and the name of the sample factories are listed in Appendix A and B respectively.

Moreover, there are two main categories of techniques for collecting data–primary and secondary information. Firstly, pilot testing was conducted then both primary and secondary data were used in the research as follows:

4.4.1 Pilot Testing

The data–gathering phase of the research process typically begins with pilot testing. The procedures for this stage are similar to those for other forms of primary data collection. Pilot testing is intended to reveal errors in the design and improper control of extraneous or environmental conditions. A pilot test is conducted to detect weaknesses in design and instrumentation and to provide proxy data for selection of a probability sample. Therefore, it should draw subjects from the target population and simulate the procedures and protocols that have been designed for data collection (Cooper & Schindler, 2001). In this study, twenty sample questionnaires were conducted to test with experts or persons who have knowledge and experience relating to the garment sector to make sure the respondents understand and interpret the survey questionnaires in the same way. It was also tested to minimize the likelihood of the respondents having problems in answering the questions and of data recoding problems, as well as to allow some assessment of the question' validity and reliability of data that will be collected.

4.4.2 Primary Data

The primary data is new information gained by the distribution of the survey questionnaires to the participants who are executives or managers involved in garment factories in Cambodia. Here, the researcher briefly discusses how primary data on textile and garment firms in Cambodia were collected by the survey questionnaires of 150 firms located in three locations of Cambodia. In the survey, 180 survey questionnaires were distributed to garment companies in Cambodia. The questionnaires are sent by mail and to each representative firm in mid October 2007. The distributions of respondents were implemented in three large locations of garment firms in Cambodia, situated in Phnom Penh, Kandal and Kompong Speu provinces.

In total, 150 questionnaires were fulfilled and returned by the respondents, accounting for 83.33 %, which could be an acceptable and satisfactory rate.

Those data was collected and analyzed to find the factors influencing the garment industry for driving on the best way of this sector to improve in the future. The primary data used in this empirical analysis is drawn from the Competitiveness of Cambodia's Garment Industry. The survey was conducted by the entire Garment Manufacturers Association of Cambodia (GMAC) membership to gather data necessary for the analysis of factors affecting competitiveness of textile and garment firms.

However, everything else is from secondary sources. Because research is a continuing process, secondary sources are always used in the development of new hypotheses and new origin–research projects (Myers & Shaw, 2004).

4.4.3 Secondary Data

The secondary data has been collected mostly information obtained from various sources such as books, journals, magazine, articles and yearbooks. Other sources are information published in the Ministry of Commerce, Council for Development of Cambodia (CDC), the Garment Manufacturers Association of Cambodia (GMAC), and other relevant institutes. The data was collected from years 2004 to 2007 and covered a wide range of quantitative and qualitative indicators.

4.5 Questionnaire Design

The questionnaires are designed to meet the objectives of the study and the predefined conceptual framework. It is as short as possible in order to maximize the participation rate. The researchers judged it to be desirable for both respondents and the researcher (Zigmund, 2000). The questionnaires are developed through the following process:

1. Specified information was sought based on the objectives of the study, the competitiveness model and main related research mentioned in Chapter II;
2. Draft questionnaires are based on a literature review, previous research and interviews;
3. The questionnaire is only in English language;
4. The draft questionnaire was submitted to the advisor and co–advisors;
5. It is pre–tested or pilot tested to make sure the respondents understand and interpret the questionnaires in the same way;
6. Advisor and co–advisors corrected and approved the questionnaires.

Referring to the results of the pretests, some modifications were made to the survey instrument to make sure that the respondents understand all questions in the survey questionnaires.

4.6 Survey Instruments

Table 4.1 Summary of Factors Influencing Cambodia's Garment Industry

Factor/Condition	Determinant	Brief Description
1. Factor Conditions	**Physical Infrastructure**	• Roads, • Railways, • Airports, • Harbors/Ports, • Container terminals, • Telecom, • Customs clearance systems, • Power–shortage, • Power supply breakdowns, • Power cost
	Basic Labor Force Resources	• Labor force availability, • Cheap and abundant workers, • Unskilled labor force, • Medium skilled labor force, • High skilled labor force
	Local Financial Resources	• Well specified government policy on foreign investment, • Availability of local financial capital, • Favorable attitude of the local public toward foreign investment
	Local Financial Resources	• Well specified government policy on foreign investment, • Availability of local financial capital, • Favorable attitude of the local public toward foreign investment
Factor Conditions (Continued)	**Technological Equipments**	• Very Low technology, • Low technology, • Medium technology, • High technology, • Very high technology
	Innovation Activities	• Research and development
	Capital Operation	• Countries' own-investment, • Cambodian owned 100%, • Foreign owned 100%, • Joint-Venture
2. Demand Conditions	**International Demand**	• Export volume increase, • Export volume decrease , and • Export volume stability in the main markets

Table 4.1 Summary of Factors Influencing Cambodia's Garment Industry (Cont.)

Factor/Condition	Determinant	Brief Description
2. Demand Conditions	**International Demand**	• Export volume increase, • Export volume decrease , and • Export volume stability in the main markets
3. Related and Supporting Industry	**Specialized Market**	• Tariff in the US Market, • EU Rules of Origin, • Discriminatory effects of Trading Blocs
4. Industry Strategy, Structure and Rivalry	**Structure**	• Woven cut and sew garments, • Knit cut and sew garments, • Knitwear garments
	Strategy	• Firm's ability of production, • Parent company, • Distribution of products
5. Government		• To avoid government environmental control imposed in their country, • To enjoy special incentives given by host governments to foreign and domestic investment, • To response to their government promotion on direct investment, • Quota system, • Non–quota available,• Cheap and abundant labor force, • Government incentive, • Preferential market access
6. Chance		• To avoid government environmental control imposed in their country, • Political stability in the host country, • Steady growth of the national income

4.7 Measurement of Variables in Questionnaire

The respondents were requested to answer a series of questions concerning the factors influencing the competitiveness of garment companies in Cambodia. In the initial step, the respondents were asked to rate each factor of importance or significance toward the firms by writing the number from 1 to 5 (5 means Excellent, 4 means Good, 3 means Average, 2 means Less than average, and 1 means Weak or Poor). This point was utilized to determine the weight of importance or significance of each proposed point toward the firm. In the second step, the respondents were questioned to consider the impact of each item on the respondent's firms by giving (X) within the defined range (1) is Weak to (5) is Excellent.

Measurement Scales: Scaling is a procedure for assigning numbers or (other symbols) to the properties of objects in order to impart some of the characteristics of numbers to the properties in question. Each question consisted of many activities mentioned above based on the literature review, especially competitiveness theory, to capture the interest. All the responded scores could be analyzed by the Statistical Package for Social Science (SPSS) program to have a suitable result. The percentage of scales are used to measure activities in a way such as that mean scores can be calculated to show how Cambodia's garment firms can arrange or deal with all activities competitively. The researcher defines the criteria to measure different levels of variable referring to the separation of five levels as below:

Excellent = 5, Good = 4, Average = 3, Less than average = 2, Weak or Poor = 1

First is to determine valued ranges of each variable to measure of the importance of factors affecting competitiveness before analysis of the main factors affecting the competitiveness of the garment industry below:

Table 4.2 Interval of Important Range

Range	Interval	Importance Level
4.51–5.00	Mean	Excellent or Most importance
3.51–4.50	Mean	Good or High importance
2.51–3.50	Mean	Average or Medium importance
1.51–2.50	Mean	Less than average or Less importance
1.00–1.50	Mean	Poor or Weak or Least importance

Then, the "definition of mean and standard deviation" should be understood well. What is the mean or standard deviation?

The **Mean** or average is the point that minimizes the collective distances of scores from that point. It is found by dividing the sum of the scores by the number of scores in the data set (Huck, 2008).

The **standard deviation** is commonly used as a measure to compare the spread in two or more sets of observations (Mason, et al., 1999). In addition, Stock & Watso (2007) conclude that the **standard deviation** measures the dispersion or “spread” of a probability distribution.

4.8 Validation of Data

When decided how the research should be conducted in order to get the answers needed and minimize the threats to credibility of the research findings, there are two important aspects, which have to be coped with reliability and validity.

Reliability is also concentrated on whether the conclusions are presented in a way that makes it possible to understand how sense can be made from the raw data (Saunders, et al., 2003). As this thesis is concerned with the consistency of the results, it refers to the extent to which the measurement process is free from random errors. It is a prerequisite for validity. An investigation with good reliability gets the impact by whom, by conducting in the surrounding circumstance. To some extent, if research is reliable, the same result is obtained if the research is carried out again under the same circumstances. To increase the reliability of an investigation, the measurement process has to be performed as identically as possible every time to avoid random errors. Techniques to measure reliability are internal consistency, test–retest and alternative forms. The collection of primary data from the survey is compared to secondary data from various sources in order to check reliability.

Validity can be defined as to what degree the findings really measure what they are aimed at measuring, and if the findings are what they appear to be (Saunders, et al., 2003). There are different kinds of validity, i.e., face validity and content validity. The validity faced some challenges. The first reason is that the score process is subjective collected data. If the participants do not know the background well or their backgrounds are of different education levels, the responses answered some kinds of the questions. It might not be correct. Some sub–factors are put forward that are difficult to quantify because sub–factors are involved in many minor factors, so this will lead to the clarity requirement of instructions in the questionnaires. Construct validity is established with correct theoretical constructs linked to the problems and the result of study, when is compared to the findings with existing theories the marketing strategies based on Jansson (1994) are relevant to the research problem and analysis of the results. Content validity is high with a lot of information gathered to cover as many dimensions as possible.

4.9 Data Analysis and Interpretation

Multiple regression is a technique based on how well various independent variables are related to dependent variables. Each factor represents several different variables, and factors turn out to be more efficient than individual variables at representing outcomes in certain studies. Therefore, this section attempts to find out the major determinants of competitiveness for the garment industry focusing on physical infrastructure, labor force resources, local financial resources, technology, innovation activities, specialized market, garment firms' structures of production, garment firms' strategy, government, and chance. The primary data is gathered from the field used by the Statistical Package for Social Science (SPSS) software package version 14.0 to analyze and interpret. Those data are typed in the SPSS program for using statistical analysis as below.

The main presentation of analysis focuses on the following section: (1) A frequency table provides the number of people and percentage belonging to each of the categories for the variable in the question. It can be used in relation to all of the different types of variables. (2) The bar chart is shown in the figure of main reasons (SPSS output). Each bar represents the number of people failing in each category. (3) The pie chart shows the relative size of the different categories but highlights also the size of each slice relative to the total sample. The percentage that each slice represents of the whole sample is also given in the diagram, which was also produced with SPSS for Windows (Bryman & Bell, 2003 : 241–242).

Descriptive analysis includes mean and standard deviation: both were measured by statistic testing to identify the result of the more important variables. It would be statistically analyzed to identify the important variables. The analysis used the following measurements for statistical testing. The measure of central tendency identified the important variables by comparing the mean among all variables, and the measure of data dispersion utilized standard deviation to check the characteristics of the data distribution. The advantage of using measures of central tendency is that it is more convenient to describe important variables, to compare with other variables, and to utilize with other forms of statistical analysis. Mean is the most popular measure of central tendency whereas standard deviation (0) is the most popular measure of dispersion. It is not sufficient to consider the result of the mean only, but also the dispersion of data needs to be considered. If standard deviation is the lower figure, it means that the data distribution or dispersion is more effective and efficient. That is the respondents have a similar answer or opinion, the data dispersion would be wider (Krajaysri, 2005). Moreover, the standard deviation will be used to analyze and evaluate the more important variables. The important variable will have a mean of 3.51 or higher.

Modeling the determinant of the export growth is determined by use of the Logit model. It is used by the regression equations based on the linear specification that yields the best statistical results among other specifications because all variables are significant (or *p*–value) and their coefficient of determination (**t** and $\overline{R}^2$) are high. Therefore, in selecting the significant variables (representative variables) of the various models are explained as follow:

The regression results for testing the conceptual model are performed in Chapter 6. Concerning the ***beta coefficients*** in the model, it tells us the effect of changes of one independent variable on the dependent variable. On this count, the independent variable still makes by far the greatest contribution, because a unit change in one independent variable has one unit change in the dependent variable. This ordering of the standardized beta coefficients of one independent variable is supported by consideration of the correlation between one independent variable and the dependent variable. The predictor with the largest beta coefficient also has the largest correlation with the dependent variable. The adjusted R– squared ($\overline{R}^2$) of the dependent variable was accounted for by regression displays *p*–value = (X) of the variation on the independent variable. Moreover, the t–test is aimed at determining the conceptual model/hypothesis of the important variables from the independent variable if there is significance between one independent variable and the dependent variable. When the t–value is greater than 1.50, it can explain that a positive significant effect between one independent variable and the dependent variable is at 5% level of significance. The *p*–value of an independent variable displays its *p*–value, which is close to zero.

CHAPTER 5

AN EVALUATION OF COMPETITIVENESS OF CAMBODIA'S GARMENT INDUSTRY USING SURVEY DATA

An analysis of Cambodia's garment industry is performed in this chapter using the survey questionnaires and secondary data, which has been discussed under the conceptual framework in chapter 2 and previous literature reviews in chapter 3.

5.1 Survey Activities and Statistical Analysis

The purposes of this chapter are as follows: providing a clear picture of the overall competitiveness of Cambodia's garment industry, reviewing the results of analysis to examine the main factors affecting competitiveness, and exploring the good strategies to resolve those issues in paving the ways to achieve a specific goal. First is to analyze and interpret sub–sectors determining the garment industry (as a cluster) quantitatively through developing a competitiveness model to evaluate the garment industry based on the primary data, then carry out the hypothesis testing.

Finally, the major factors influencing the competitiveness of the garment industry in Cambodia are evaluated. In the survey, 180 questionnaires were distributed to garment companies in Cambodia. The surveys were conducted through personal interviews and mail survey. The distributions of respondents were implemented in three large locations of garment firms in Cambodia, situated in Phnom Penh, Kandal and Kompong Speu provinces.

The results of the data analyses are presented in four sections (1, 2, 3 were mentioned in chapter 5, and 4 in chapter 6 as follows:

1. Characterization of the Sample Respondent as to the Demographics of the Companies;

2. The Importance Level of Factors Influencing Competitiveness of the Garment Industry in Cambodia;

3. The Strengths and Weaknesses, and Opportunities and Threats (SWOT) Analysis of Competitiveness of the Garment Industry in Cambodia;

4. The Determinant of the Competitiveness of Garment Industry: The Logit Model.

5.2 Characterization of Respondents as to the Demographics of the Companies

5.2.1 Location of Garment Firms

In Table 5.1 and Figure 5.1 indicate that the survey results account for 83% of 150 respondents. Their factories have been situating in Phnom Penh, and 14% and 3% in Kandal and Kompong Speu provinces respectively. The reason for selecting these locations were that they provide the facilities for investors such as closer infrastructure, utility, service, administration, and easily to seek employees, especially, most Cambodia's garment factories objectives aim at producing garment products to export in the global market such as the United States, European Union, Canada and Japan Markets and so on.

Table 5.1 Distributions of Respondents by Firms' Location

No.	Type of Ownership	Frequency	%	Cumulative %
1.	Phnom Penh City	125	83	100.0
2.	Kandal Province	21	14	100.0
3.	Kompong Speu Province	4	3	100.0

Source: Calculation Based on the Survey Data

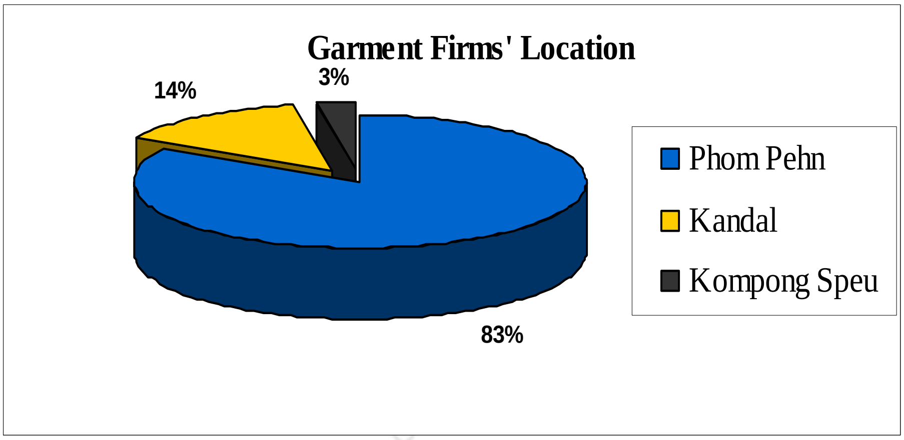


Figure 5.1 Distributions of Respondents by Firms' Location

5.2.2 Ownership of Garment Firms

Table 5.2 and Figure 5.2 indicate that 124 garment factories are invested by foreign investors accounting for 82.7%. While 4% are own–invested by Cambodian investors, and 13.3% in the joint venture investment.

Table 5.2 Distributions of Respondents by Ownership

No.	Type of Ownership	Frequency	%	Cumulative %
1.	Cambodian Own–Investors	6	4.0	100.0
2.	Foreign Own–Investors	124	82.7	100.0
3.	Joint–Venture	20	13.3	100.0

Source: Ibid

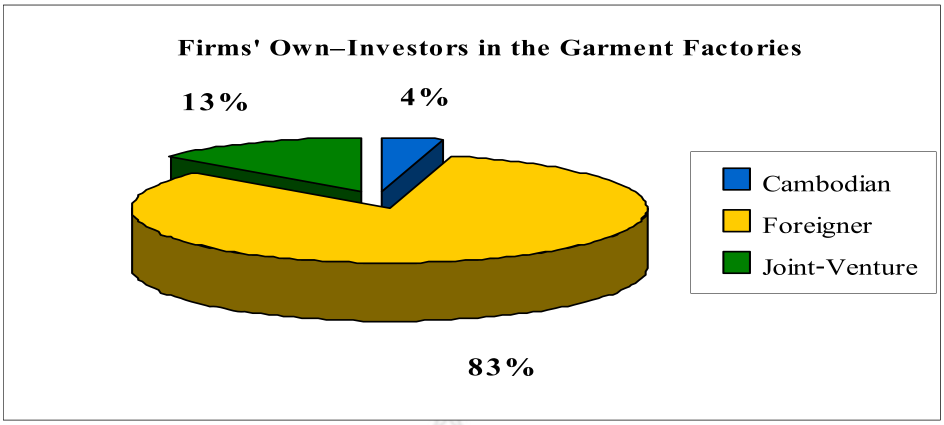


Figure 5.2 Distributions of Respondents by Ownership

In brief, Cambodia's garment firms are mostly of foreign investors and the majority of foreign investors come from China, Hong Kong, Taiwan and South Korea as shown in Table 5.2a below. They have the specialized experiences to make garment products in Cambodia because Cambodia has been granted MFN and GSP from the US and EU markets, duty–free & quota free especially, and EU "Everything but Arms". Moreover, the company law allows the investors to hold 100% shares for doing business. The law of investment in Cambodia is open and allows the foreign investors to own the higher capital investment (Non–discrimination). Foreigner has full rights to take a whole share except for land ownership.

Table 5.2a Distributions of Respondents by Country's Ownership

No.	Own–Invested by Country	Number of Company
1.	BANGLADESH	1
2.	BRITISH	2
3.	CAMBODIA	6
4.	CAMBODIA & CHINA	3
5.	CANADA	1
6.	CHINA	14

Table 5.2a Distributions of Respondents by Country's Ownership (Cont.)

No.	Own–Invested by Country	Number of Company
7.	CHINA & HONG KONG	2
8.	CHINA, CANADA & BRITISH	1
9.	CHINA, TAIWAN & HONG KONG	1
10.	HONG KONG	32
11.	HONG KONG & CAMBODIA	1
12.	HONG KONG & MACAU	1
13.	INDONESIA	1
14.	INDONESIA & HONG KONG	1
15.	KOREA	17
16.	MACAU	3
17.	MACAU & CHINA	1
18.	MALAYSIA	9
19.	MALAYSIA & TAIWAN	1
20.	MALAYSIA & CAMBODIA	1
21.	SINGAPORE	8
22.	SINGAPORE & TAIWAN	1
23.	TAIWAN	36
24.	TAIWAN & CAMBODIA	1
25.	TAIWAN & CHINA	2
26.	TAIWAN & USA	2
27.	TAIWAN, SINGAPORE & INDONESIA	1
	Grand Total:	**150**

Source: Ibid

5.2.3 Innovation Activities

The Table 5.3 and Figure 5.3 show Cambodia's garment firms have been planned to set up research and development (R & D) projects, perceived by 12% of the respondents.

Table 5.3 Distributions of Respondents by Research and Development

No.	Research and Development	Frequency	%	Cumulative %
1.	Yes, have been planned	18	12.0	100.0
2.	No, have not been planned	132	88.0	88.0

Source: Ibid

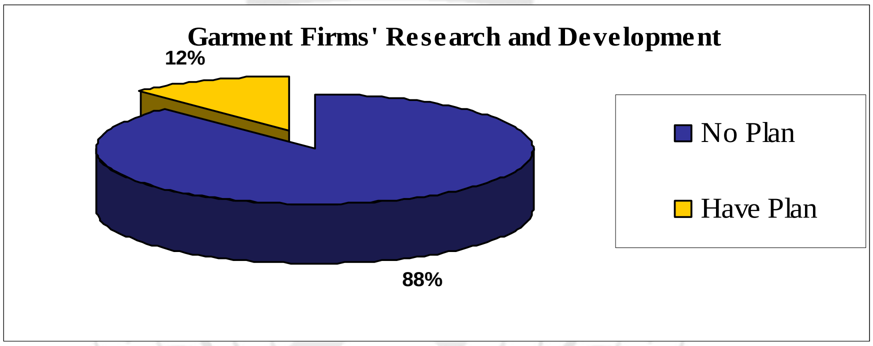


Figure 5.3 Distributions of Respondents by Research and Development

5.2.4 Physical Infrastructure

The Table 5.4 shows that the physical infrastructure relating to the garment factories in the survey was reflected on the average response rates of 86.7, 80.0, 83.3, 51.3, 56.0 and 60.0% by road, airport, harbor/port, container terminal, telecom and custom clearance system respectively. The power–shortage, power supply breakdown, power supply costs were marked less than average accounting for 63.4, 66.0 and 93.3% respectively. In addition, railway was considered as a weak section accounting for 82.7% with losing shares with competitiveness of the garment sector in the country.

Table 5.4 Distributions of Respondents by Physical Infrastructure

No.	Physical Infrastructure		Frequency	%	Cumulative %
1.	Road	Average	130	86.7	93.3
2.	Railway	Weak	124	82.7	82.7
3.	Airport	Average	120	80.0	91.3
4.	Harbor/Port	Average	125	83.3	93.3
5.	Container terminal	Average	77	51.3	56.7
6.	Telecom	Average	84	56.0	100.0
7.	Customs clearance system	Average	90	60.0	100.0
8.	Power–shortage	Less than average	95	63.4	64.0
9.	Power supply breakdown	Less than average	99	66.0	76.7
10.	Power supply costs	Less than average	140	93.3	97.7

Source: Ibid

5.2.5 Labor Force Resources

Table 5.5 presents that labor force resources have been influencing competitiveness of the garment sector in Cambodia. In the parts of "labor force availability" and "cheap & abundant workers," they are perceived as 58.7 and 63.3% by respondents respectively. 58.7% represented the 'medium skilled labor forces', a supporting skills level that is able to improve competitiveness of the garment industry in Cambodia.

Table 5.5 Distributions of Respondents by Labor Force Resources

No.	Labor Force Resources		Frequency	%	Cumulative %
1.	Labor force availability	Good	88	58.7	93.3
2.	Cheap & abundant workers	Good	95	63.3	98.0
3.	Unskilled labor force	Good	98	65.3	99.0
4.	Medium skilled labor force	Average	88	58.7	86.7
5.	High skilled labor force	Less than average	87	58.0	84.7

Source: Ibid

5.2.6 Export Volume

The Table 5.6 shows that Cambodia's garment exports continue to increase export growth. Referring to the respondents' expectation, they suggest that garment exports to the US market will become increasingly stronger than other markets. 78 respondents expect their increasing exports to account for 52%, and then EU markets will be importing more than last year. In addition, Non–EU' countries like the Japanese and Canadian markets will be importing Cambodian garment products somewhat more. Cambodia's garment export–oriented products to Non–EU, Japanese and Canadian markets are also perceived by respondents to have a very small increase of export volume by 18.7%, 16% and 22% respectively.

Table 5.6 Distributions of Respondents by Export Volume

No.	Export Volume To		Frequency	%	Cumulative %
1	The US Market	Decrease	42	28.0	28.0
		Same	30	20.0	48.0
		Increase	78	52.0	100.0
2	EU Market	Decrease	18	12.0	12.0
		Same	80	53.3	65.3
		Increase	52	34.7	100.0
3	Non–EU Market	Decrease	4	2.7	2.7
		Same	118	78.7	81.3
		Increase	28	18.7	100.0
4	Japan Market	Decrease	4	2.7	2.7
		Same	122	81.3	84.0
		Increase	24	16.0	100.0
5	Canada Market	Decrease	14	9.3	9.3
		Same	103	68.7	78.0
		Increase	33	22.0	100.0

Source: Ibid

In conclusion, Cambodian garment exports will be able to increase in the main global markets for the few next years because Cambodia has subsequently earned a reputation among buyers as a socially responsible manufacturing platform from which to source garments. Cambodia has a reputation as having “no sweatshop”, good working condition, and compliance with international labor standards, as monitored by the international labor organization.

5.2.7 Local Financial Resources

Table 5.7 presents that well specified government policy on foreign investment accounts for 60.7% of respondents highlighting the need that the government of Cambodia provides a clear picture to absorb foreign direct investment. The favorable attitude of the local public toward foreign investment is perceived as good enough by 68% of respondents.

Table 5.7 Distributions of Respondents by Local Financial Resources

No.	Local Financial Resources		Frequency	%	Cumulative %
1.	Well specified government policy on foreign investment	Excellent	91	60.7	100.0
2.	Availability of local financial capital	Less than average	82	54.7	73.3
3.	Favorable attitude of the local public toward foreign investment	Good	89	68.0	92.7

Source: Ibid

5.2.8 Technology

Table 5.8 indicates that medium technology was perceived by most garment companies in Cambodia to use technology accounts for 60% of respondents.

Table 5.8 Distributions of Respondents by Technology

No.	Technology	Interval	Frequency	%	Cumulative %
1.	Very low technology	Average	95	63.3	70.7
2.	Low technology	Average	94	62.7	73.3
3.	Medium technology	Average	90	60.0	64.0
4.	High technology	Average	36	24.0	96.7
5.	Very high technology	Weak	99	66.0	66.0

Source: Ibid

5.2.9 Specialized Market

Table 5.9 represents that specialized markets are perceived by respondents to have 44% and 41.3% of "tariffs in the US market" and "the EU rules of origin" respectively, influencing competitiveness of the garment sector in Cambodia. Only 38% of "discriminatory effects of trading blocs" was indicated by the respondents.

Table 5.9 Distributions of Respondents by Specialized Market

No.	Specialized Market		Frequency	%	Cumulative %
1.	Tariff in the US market	Yes	66	44.0	100.0
		No	84	56.0	56.0
2.	The EU rules of origin	Yes	62	41.3	100.0
		No	88	58.7	58.7
3.	Discriminatory effects of trading blocs	Yes	57	38.0	100.0
		No	93	62.0	62.0

Source: Ibid

5.2.10 Garment Firms' Structures of Production

Table 5.10 shows that the garment firms' structures of production have three types. There are woven cut and sew garments, knit cut and sew garments, and knitwear garments.

Table 5.10 Distributions of Respondents by Firms' Structures of Production

No.	Government Firms' Structures of Production	Frequency	%	Cumulative %
1.	Woven cut and sews garments	101	67.3	100.0
2.	Knit cut and sews garments	102	68.0	100.0
3.	Knitwear garments	10	6.7	100.0

Source: Ibid

Most of the garment firms in Cambodia are perceived by 67.3% and 68% of respondents are made woven cut and sew garments, and knit cut and sew garments respectively, but only 6.7% are produced as knitwear garments.

5.2.11 Garment Firms' Strategy

Table 5.11 presents that the strategy export of the Cambodian garment firms were reflected in 116 companies accounting for 77.3% that are able to compete in the international market. However, 90% of Cambodia's garment firms have their parent companies or headquarter offices overseas and firms' strategy of distribution was implemented through headquarter offices abroad is perceived by 86.7% of the respondents.

Table 5.11 Distributions of Respondents by Firms' Strategy

No.	Garment Firms' Strategy		Frequency	%	Cumulative %
1.	Ability of competition	Yes	116	77.3	100.0
		No	34	22.7	22.7
2.	Parent company	Yes	135	90.0	100.0
		No	15	10.0	10.0
3.	Buyers' purchasing order directly	Yes	29	19.3	100.0
		No	121	80.7	80.7
4.	Channel parent company or	Yes	130	86.7	100.0
	headquarters office at abroad	No	20	13.3	13.3

Source: Ibid

5.2.12 Government

Table 5.12 indicates that "To enjoy special incentives given by host government to foreign and domestic investment" were answered as good and excellent, accounting for 24% and 40% by respondents' opinion. While cheap and abundant labor force, government incentive and preferential market access is perceived by 46% & 28%, 38.7% & 45.3% and 34% & 44.7% of respondents respectively are on good and excellent level.

Table 5.12 Distributions of Respondents by Government

No.	Government		Frequency	%	Cumulative %
1.	To avoid government environmental control imposed in their country	Average	82	54.7	68.7
		Good	36	24.0	92.7
2.	To enjoy special incentives given by host government to foreign and domestic investment	Good	60	40.0	50.0
		Excellent	75	50.0	100.0
3.	Quota system	Weak	52	34.7	40.0
		Average	42	28.0	70.0
4.	Non quota available	Average	51	34.0	39.3
		Good	46	30.7	70.0
5.	Cheap and abundant labor force	Good	69	46.0	72.0
		Excellent	42	28.0	100.0
6.	Government incentive	Good	58	38.7	54.7
		Excellent	68	45.3	100.0
7.	Preferential market access	Good	51	34.0	55.3
		Excellent	67	44.7	100.0

Source: Ibid

5.2.13 Chance

Table 5.13 shows that 'political stability in the host country' and 'steady growth of the national income' 64% and 38.7% of the respondents respectively reflect an excellent level.

In sum, these two sub–factors are providing a significant competitiveness status of the garment industry in Cambodia.

Table 5.13 Distributions of Respondents by Chance

No.	Chance		Frequency	%	Cumulative %
1.	To avoid government environmental control imposed in their country	Average	82	54.7	68.7
		Good	36	24.0	92.7
2.	Political stability in the host country	Good	48	32.0	36.0
		Excellent	96	64.0	100.0
3.	Steady growth of the national income	Good	67	44.7	61.3
		Excellent	58	38.7	100.0

Source: Ibid

5.3 The Importance Level of Factors Influencing Competitiveness of the Garment Industry in Cambodia

Cambodia's textile and clothing industry plays a more key role as a mainstay to national economic growth and creative employment than other sectors in Cambodia. How can Cambodia retain competitiveness of the garment sector in the international market? It is very necessary to substantially develop the competitive advantage in this sector. This section attempts to find out the main factors influencing competitiveness of the garment industry based on ten factors: physical infrastructure, labor force resources, local financial resources, technology, innovation activities, specialized market, garment firms' structures of production, garment firms' strategy, government and chance.

5.3.1 Physical Infrastructure

Table 5.14 shows the respondents' overview on the importance of transportation costs of export–import for garment firms in Cambodia. The road responses rates were computed as mean = 3.000, and standard deviation (S.D) = .36637. The other factors are indicated as follows: airport (mean = 2.9733, S.D = .44791), harbor/port (mean = 2.9667, S.D = .40825), Container terminal (mean = 3.3800, S.D = .58700), Telecom (mean = 3.4933, S.D = .62118), customs clearance system (mean = 2.5933, S.D = .50629). These sub–factors are perceived as medium importance influencing competitiveness of the garment firms in Cambodia. Other factors include railways (mean = 1.1733, S.D = .37980), power–shortage (mean = 2.3600, S.D = .49535), power supply breakdown (mean = 2.2333, S.D = .62837), power supply costs (mean 1.6133, S.D = .61072). These sub–factors are perceived as having less importance to the competitiveness of the garment firms in Cambodia.

Table 5.14 Descriptive Statistics of Physical Infrastructure

No.	Competitive Factors	Mean	S.D	N	Importance level
1.	Roads	3.0000	.36637	150	Medium importance
2.	Railways	1.1733	.37980	150	Less importance
3.	Airports	2.9733	.44791	150	Medium importance
4.	Harbors/Ports	2.9667	.40825	150	Medium importance
5.	Container terminals	3.3800	.58700	150	Medium importance
6.	Telecom	3.4933	.62118	150	Medium importance
7.	Customs Clearance System	2.5933	.50629	150	Medium importance
8.	Power–Shortage	2.3600	.49535	150	Less importance
9.	Power Supply Breakdown	2.2333	.62837	150	Less importance
10.	Power supply Costs	1.6133	.61072	150	Less importance

Source: Ibid

In conclusion, the physical infrastructure in Cambodia is still in poor condition. Cambodia faces constraints such as that it has no deep–sea harbor for the international market destinations so all exports and imports need to be trans–shipped through a third country, which is usually Singapore. All other major competitors have their own deep–sea ports.

In addition, Cambodian railways are very poor in the region and power electricity supplies are more expensive than the neighboring countries like Thailand and Vietnam. The railway and power supply factors have some impacts on competitiveness of the garment industry sector in Cambodia because it is a significant and serious issue when production costs and shipment of goods are severely affected by an insufficient and unreliable power/electricity supply costs, especially because power supplies seem likely to be more expensive than Vietnam, which also makes garments for export to the main market quite similar to Cambodia.

Therefore, the majority of companies are not satisfied with the quality of the country's physical infrastructure, which forces them to increase their input costs.

5.3.2 Labor Force Resources

The Table 5**.15** indicates the respondents' opinion rating to the importance of labor forces and skilled labor forces the Cambodia's garment sector. The "labor forces availability" are computed as mean = 3.7200, S.D = .58067 and "cheap and abundant workers" are mean = 3.6733, S.D = .51157. These two sub–factors are perceived as of high importance influencing competitiveness, while "medium skilled labor force" (mean = 2.8333, S.D = .66974) is perceived as medium importance. On the contrary, the unskilled labor force is computed as mean of responses rates = 3.9267, S.D = .78660, which reflects that the most of labor force in the garment field are unskilled. In addition, the high skilled labor force (mean = 1.8867, S.D = .64023) is perceived difficult to seek to fulfill the garment sector requirements.

In sum, the labor force source in the garment sector can easily seek employees to support this sector but most of the Cambodian labor forces have quite low education level and low operator skills because most of them are economic migrants from rural areas. On the other hand, the high skilled labor force is not enough to support competitiveness of the garment factories' requirements in Cambodia.

Table 5.15 Descriptive Statistics of Labor Force Resources

No.	Competitive Factors	Mean	S.D	N	Importance level
1.	Labor force availability	3.7200	.58067	150	High importance
2.	Cheap and abundant workers	3.6733	.51157	150	High importance
3.	Unskilled labor force	3.9267	.78660	150	high importance
4.	Medium skilled labor force	2.8333	.66974	150	Medium importance
5.	High skilled labor force	1.8867	.64023	150	Less importance

Source: Ibid

Some of Cambodia's entrepreneurs have met difficult challenges to seek a high skilled labor force to employ their garment factories. To stand in position on the international competition most garment factories owners have to recruit high labor skills from overseas like China, Taiwan, Korea or Vietnam. On the other hand, KIEP & KOICA (2006) reveals quite similarly that most women workers are employed in Cambodia's garment industry. The Cambodian labor force perception by respondents indicates that there are available labor forces and cheap and abundant workers and most of them are female workers, but they have a shortage of skills and low education or literacy. They are emigrating from rural areas.

However, it is difficult to find local managers in the foreign invested firms. Notably, concerned union activities in this sector and multiple union representations are allowed in Cambodia so one to four unions are active in each factory. Thus, each company faces some difficulties in cooperating with unions.

5.3.3 Local Financial Resources

Table 5.16 shows the respondents' opinion to the important local financial resources in Cambodia's garment sector. Specified government policy on foreign investment are computed as mean = 4.4600, S.D = .77399 and there is a favorable attitude of the local public toward foreign investment (mean = 4.2000, S.D = .77719) perceived as high importance influencing competitiveness of the garment firms in Cambodia. However, availability of local financial capital (mean = 2.1133, S.D = .73764) are perceived as of less importance.

Table 5.16 Descriptive Statistics of Local Financial Resources

No.	Competitive Factors	Mean	S.D	N	Importance Level
1.	Well specified government policy on foreign investment	4.4600	.77399	150	High importance
2.	Availability of local financial capital	2.1133	.73764	150	Less importance
3.	Favorable attitude of the local public toward foreign investment	4.2000	.77719	150	High importance

Source: Ibid

In conclusion, the government of Cambodia has distributed its clear policy to foreign investment and has favorable attitudes of the local public toward foreign investment, but the availability of local financial capital is perceived as not enough to support the garment sector when some entrepreneurs have met the lack of financial capital to resolve their operating business face to face. In fact, Cambodia's financial sources are not sophisticated enough to support the country business environment. Access to loans remains challenging to businesspersons. Cambodian banks provide very slow service and have difficulty in finding a reliable bank, and complain that the borrowing interest rate is too high. Furthermore, foreign investors are unlikely to deposit their money in Cambodian banks, because they perceive that Cambodian banks are not secure. Most of them transfer some cash from headquarters to Cambodian banks only once per month, but the budget is limited depending on their firms' requirements to serve their existing projects. Especially, one–day wage for workers or every payday is laborious. Foreign investors' activities based on local banks are virtually impossible, because even issuing a letter of credit (L/C) in local banks is not easy. Cambodian nationals also do not use local banking agencies. Even Cambodian people use private financing instead of bank financing. EIC (2005) and KIEP & KOICA (2006) also indicate that is similar of the opinions above.

For instance, the interest rate for ACLEDA Bank's loans in US dollars are as follows:

1. **Medium Business Loan**, **Credit Line, or Revolving Credit Line**: interest rate is now as low as 1.7% per month for loans from US$ 10,000 to US$ 30,000 and as low as 1.5% per month for larger amounts.

2. **Personal Loan:** interest rates are now as low as 2% per month for loans up to US$9,999, and even lower at 1.7% for larger loan sizes up to US$30,000

3. **Overdraft:** interest rates are now as low as 1.7% per month for loans from US$5,000 to US$30,000 and as low as 1.5% per month for larger amount.

Whereas, ACLEDA Bank offers a higher interest rate for **Fixed Deposits** in US dollars of up to 7.50% per year from October 20, 2008 to April 13, 2009.

5.3.4 Technology

Table 5.17 presents the respondents' opinion of the importance of technology in the garment sector. It is computed as mean of response rates = 3.3867, S.D = .78396, which is below the medium importance level, very low technology and low technology (mean = 3.3267 & 3.1667, S.D = .76410 & .83076) respectively. High technology and very high technology (mean = 1.7667 & 1.5733, S.D = .92987 & .86192 were reflected as of less importance level.

In summary, the level of medium technology is used to make the garment products in Cambodia's garment firms perceived as medium importance influencing competitiveness of the garment industry in Cambodia.

Table 5.17 Descriptive Statistics of Technologies

No.	Competitive Factors	Mean	S.D	N	Importance Level
1.	Very low technology	3.3267	.76410	150	Medium importance
2.	Low technology	3.1667	.83076	150	Medium importance
3.	Medium technology	3.3867	.78396	150	Medium importance
4.	High technology	1.7667	.92987	150	Less importance
5.	Very high technology	1.5733	.86192	150	Less importance

Source: Ibid

Most garment companies can obtain technology exclusively from licensing or imitating foreign companies through foreign direct investment (FDI). In general terms, based on the levels of technology employed in Cambodia, the lowest level are in sewing and inspection. The machines have few attachments that could aid workers to operate more effectively, both in volume and quality terms. This is characteristic of countries where labor costs are very competitive as management considers it cheaper to employ people than to invest in machines or specific machine attachments. However, there are some garment firms in Cambodia that work with Computer–Aided Design (CAD) systems and laying/cutting machines to minimize waste, but this type of technology is not widespread.

5.3.5 Innovation Activities

Figure 5.4 shows that Cambodia's garment firms are considered as the lack of companies spending on research and development (R&D). Business collaborations with universities are seen as the other two significant weaknesses, preventing Cambodia from higher productivity. Growth is perceived by 88% of respondents. However, the garment firms have set up the R&D as their parent companies overseas are only as explained by 12% of the respondents.

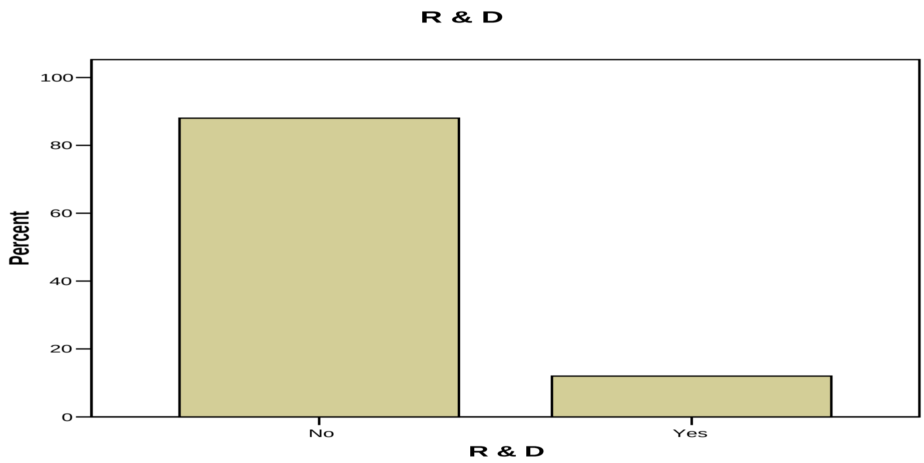


Figure 5.4 Research and Development

On the other hand, a large proportion of companies believe that technology is obtained from licensing or imitating foreign companies. Usually companies in Cambodia do not spend heavily on research and development. EIC (2005) also indicates that Cambodia's level of technological readiness to lag far behind other countries. Thailand moves very fast in the area due to its strong ability in absorbing new technology. In addition, technical training is lacking at all personnel levels: senior managers, middle managers, technicians, supervisors, sewing operators, cutting–room personnel, and pressing, folding, packing operators, and locally produced fashion designers.

Therefore, Cambodia's garment factories are considered deeply, to be at risk in the future, because of the lack of companies spending on research and development, and collaboration with universities and others institutes are seen as two other significant weaknesses. If garment firms want and need to survive doing business in this sector long term, those firms should develop and improve R&D. Moreover, policy–makers, owner–investors and stakeholders are to take a proper measure to create local R&D for Cambodia's garment firms. For example, the government is to encourage any garment firm that has a Research & Development division through employing Cambodian human resources for their exports. If the government can achieve such policy, it can increase local employment reduce poverty based on the government of Cambodia's rectangular strategy.

5.3.6 Specialized Market

Figure 5.5 and 5.6 represent that specialized markets are perceived to have 44% of tariff in the US market and 41.3% in EU rules of origin by the respondents influencing competitiveness of the garment sector in Cambodia.

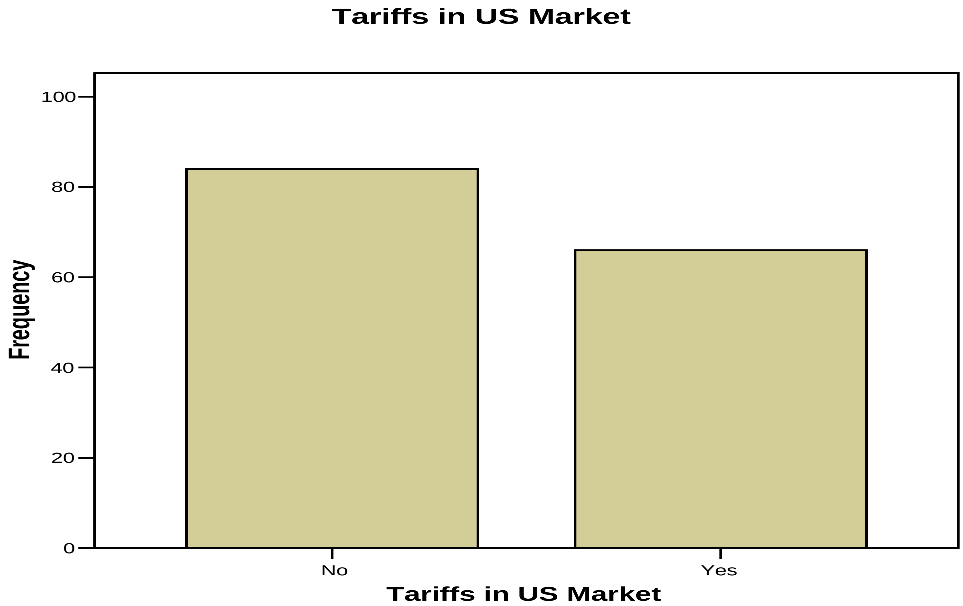


Figure 5.5 Tariffs in US Market

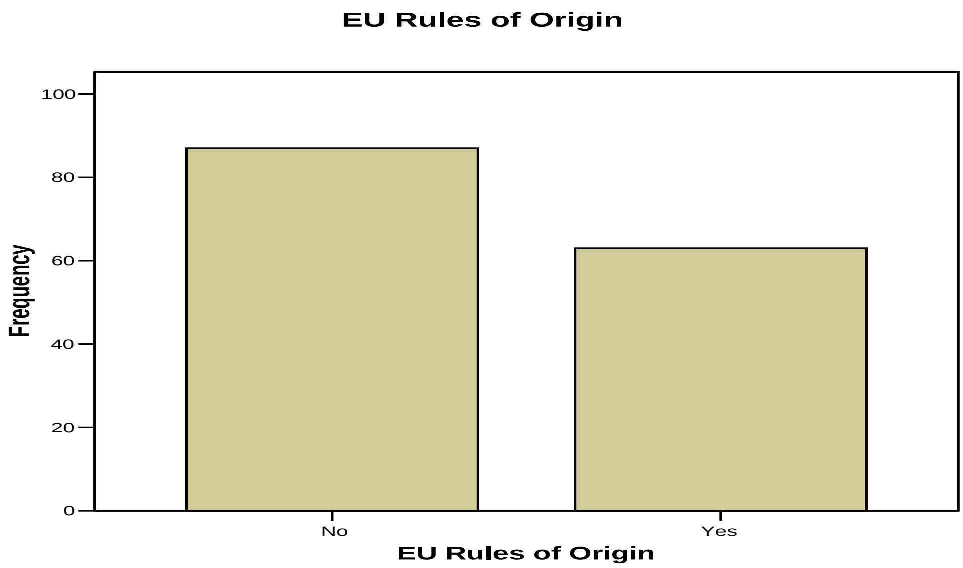


Figure 5.6 Tariffs in EU Market

General speaking, it indicates that the tariffs in the US market is still high rate and EU rules of origin seem likely to be complex with local content for Cambodia's exporters.

However, most of Cambodia's garment factories have been own–invested by 83–96% of foreign investors. The garment sector was grown by foreign direct investment in the mid 1990s. They come from China, Hong Kong, Malaysia, Singapore, and so on. In other words, in the last few years, this sector is notably invested by Korean investors. In addition, they are making a decision on the operating business in Cambodia's garment sector. Therefore, those countries are perceived to have specialists or experts in the existing garment business.

5.3.7 Garment Firms' Structures of Production

Table 5.18 shows that the garment firms' structures of production: woven cut and sew garments, knit cut and sew garments and knitwear garments importance level influencing competitiveness of Cambodia's garment industry. Most garment firms in Cambodia are perceived as 67.3% and 68% by the respondents to be made by woven cut and sew garments and knit cut and sews garments respectively, but only 6.7% are produced as knitwear garments.

The garment firms' structure of productivity activities are bought fabrics or yarns or panels or accessories from foreign countries such as Taiwan, South Korea, Hong Kong, China, Thailand or Vietnam and so on, or some of them are available in the domestic but not enough to support their assembly line requirements.

Table 5.18 Garment Firms' Structures of Production

No.	Garment Firms' Structures of Production	Frequency	%	Valid %	Cumulative %
1.	Woven cut and sew garments	101	67.3	67.8	100.0
2.	Knit cut and sew garments	102	68.0	68.0	100.0
3.	Knitwear garments	10	6.7	6.7	100.0

Source: Ibid

1. Woven cut and sew garments of firms' structure of production are made. First, garment firms have buyers' orders from their headquarter offices or buyers' orders directly. Second, firms arrange their production process to buyers' requirement.

The firms buy fabrics or accessories from foreign countries or some available to purchase domestically. Then, garment companies start with their assembly line systematically as the following:

a) Cutting: Cutters spread layers of fabric, lay out patterns, cut fabric, and prepare bundles for sewing;

b) Sewing: Lines of sewing operators join cut fabric pieces and knit fabric panels, set sleeves and collars, attach pockets, trims, and closures, to produce whole garments;

c) Quality control (QC) staffs check garments for quality and ensure that flaws are addressed before the garments leave the factory;

d) Finishing: Garments are trimmed of loose threads and laundered. Fabric finishes may be introduced through washing, final goods are pressed, and garments are readied for shipment according to the buyers' specifications. Hang tags and price tickets are attached, garments are folded or hanged, packaged, and containerized for shipment around the world (See Figure 5.7).

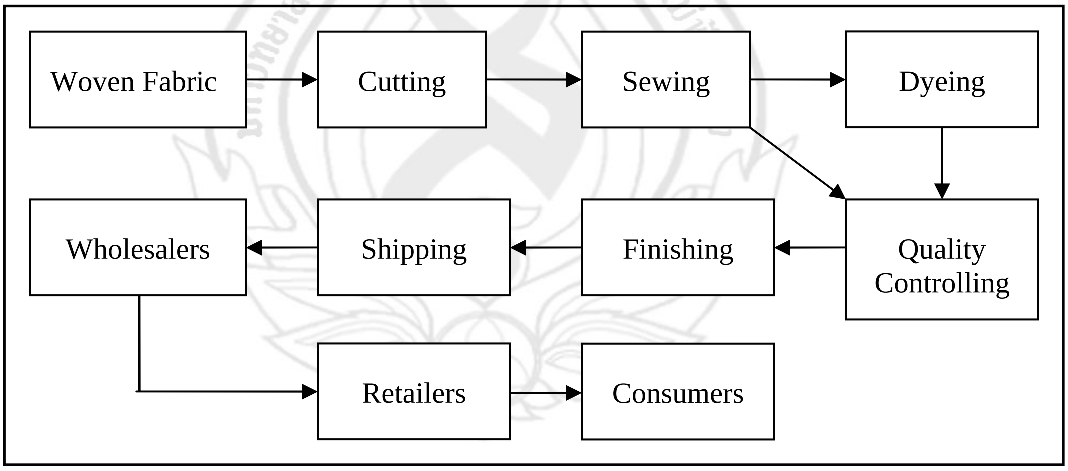


Figure 5.7 Woven Cut and Sew Garments

2. Knit cut and sew garments of firms' structure of production are also made similarly to woven cut and sew garments, but do not have dyeing in the process (as shown figure 5.8).

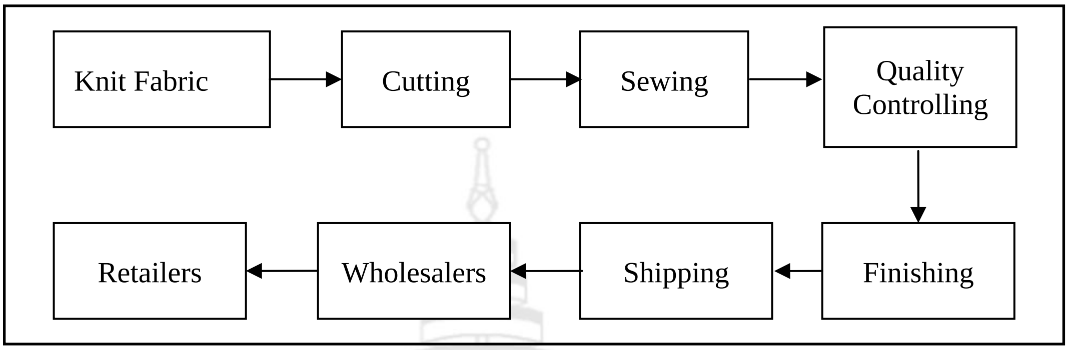


Figure 5.8 Knit Cut and Sew Garments

3. Knitwear garments may be cotton–based or, more often, are based on longer staple fibers such as wool or acrylic. In the case of knitwear garments in Cambodia, they are implemented by the initial step: firms must have buyers' orders from their head offices or buyers' orders must be directly in its hands. Secondly, firms should organize their production process to buyers' requirements. The raw materials are imported from foreign countries or some are available domestically.

The production steps, based on imported yarns, indicate that some companies can be made by yarn spinning, winding/yarn dyeing and re–winding and usually include knitting (in some factories, knitting machine operators produce knit fabric panels), linking, dyeing, quality controlling, finishing (including: trimming, laundering, ironing,, packing., etc).

Even though the usual activities of Cambodian knitwear sector of some firms do import, knitted garment panels for which the next operation is linking are as shown in figure 5.9.

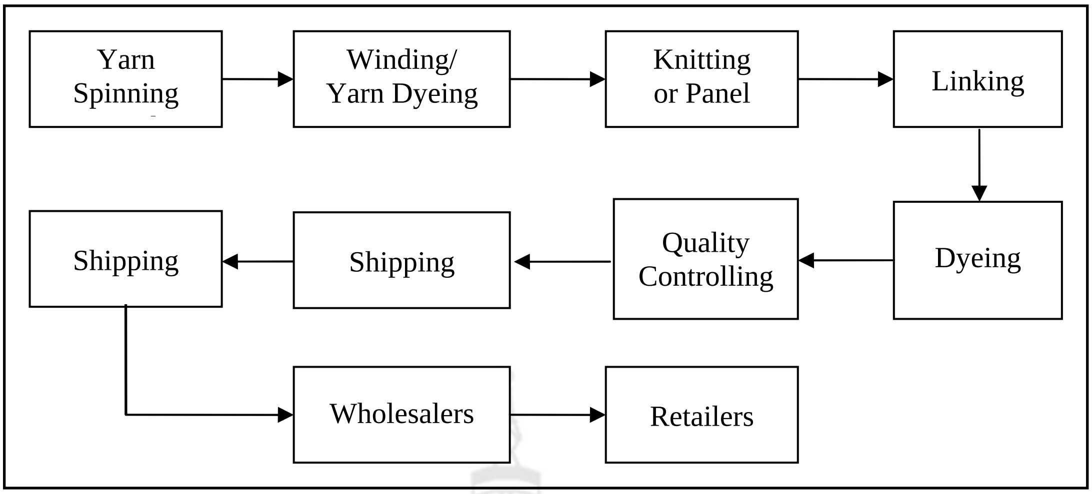


Figure 5.9 Knitwear Garments

In sum, woven cut and sew garments, and knit cut and sew garments in the global garment industry have become based on such units in order to offer the reduced or competitive lead times demanded by buyers. Whereas, knitwear garments are labor intensive to produce and have the highest domestic value addition of all garments made in Cambodia.

5.3.8 Garment Firms' Strategy

Table 5.19 represents the respondents' opinion of important about the firms' strategy in the garment sector. Mean of response rates of ability of production and channel parent company abroad are computed mean = 4.0933, S.D = 1.68031 and mean = 4.4667, S.D = 1.36429 respectively. While the parent company or headquarters abroad (mean = 4.6000, S.D = 1.20402) which is the most important level, but buyers' direct purchasing order (mean = 1.7733, S.D=1.58494) is less importance.

Table 5.19 Descriptive Statistics of Firms' Strategy

No.	Garment firms' Strategy	Mean	S.D	N	Importance Level
1.	Ability of production	4.0933	1.68031	150	High Importance
2.	Parent company or Headquarter at abroad	4.6000	1.20402	150	Most Importance
3.	Buyers' purchasing order directly	1.7733	1.58494	150	Less Importance
4.	Channel parent company at abroad	4.4667	1.36429	150	High Importance

Source: Ibid

In conclusion, Cambodia's garment firms strategy compete in international markets. With respect to the exports of Cambodia's garment firms, they reflected their ability of production to compete in the international market. Parent companies or headquarters overseas indicates that most of the Cambodian garment firms' strategy of distribution and finding their business partners. It is perceived by the respondents to be exceedingly based on their headquarters abroad because most Cambodian garment factories have been own–invested by foreign investors accounting for 83 to 96%, having the specialized experiences to make garment products in Cambodia.

In a general sense, Cambodia's garments companies compete internationally in the global niche market and seem to enjoy high corporate government. For instance, 1) Cambodian garments market Cambodia as a producing country that practices "fair trade." Assistance has been sought from France to publicize our fair trade practices, in cooperation with the ILO for monitoring working condition and labor practices. 2) Promotion through Buyers Forum has been held biyearly 3) GMAC co–chaired with the government lobbies the duty free market access. Other aspects of the firms operations and strategy bear some interesting characteristics: 1) The Garment Manufacturers Association of Cambodia (GMAC) has called for all garment firms to gather as a cluster. 2) GMAC has collaborated with Agence Francais de Developent (AFD) for a training program by Cambodian Garment Training Centre that has established programs to help the member factories.

5.3.9 Government

Table 5.20 shows the respondents' opinion of importance for government in the garment sector. 'To enjoy special incentives given by host governments to foreign and domestic investment' are computed as mean = 4.4000, S.D = .66555, non–quota available as mean = 3.8400, S.D = .94890, cheap and abundant labor force as mean = 3.9600, S.D =.85042, government incentive as mean = 4.2600, S.D = .80627 and preferential market access as mean = 4.1867, S.D = .87766 respectively.

Table 5.20 Descriptive Statistics of Government

No.	Competitive Factors	Mean	S.D	N	Importance Level
1.	To avoid government environmental control imposed in their country	3.2467	.78524	150	Medium importance
2.	To enjoy special incentives given by host government to foreign and domestic investment	4.4000	.66555	150	High importance
3.	Quota system	2.5733	1.56877	150	Medium importance
4.	Non quota available	3.8400	.94890	150	High importance
5.	Cheap and abundant labor force	3.9600	.85042	150	High importance
6.	Government incentive	4.2600	.80627	150	High importance
7.	Preferential market access	4.1867	.87766	150	High importance

Source: Ibid

These sub–factors present high importance levels influencing the competitiveness of the garment industry in Cambodia. While, 'To avoid government environmental control imposed in their country' are computed as mean = 3.2467, S.D = .78524 and quota system as mean = 2.5733, S.D = 1.56877 respectively as medium importance level.

In brief, special incentives given by host governments to foreign and domestic investment have greater sub–factors in order to absorb direct foreign investment to bring technology and knowledge to raise productivity levels. In addition, cheap and abundant labor force and preferential market access are major sub–factors that can help Cambodia's garment sectors for a competitive advantage in the international markets. Concerning 'To avoid government environmental control imposed in their country' and quota system, they seem likely to not affect competitiveness currently, because the quota system was removed at the end of 2004 by the WTO Agreement on Textile and Clothing (ATC). However, the government of Cambodia has played a key role in negotiations with other governments like the U.S and E.U to ask for a minimum tariff level, duty free or preferences for Cambodia's garment products to imported countries. For instance, Cambodia has been granted with MFN and GSP from the U.S and the E.U respectively. In addition, the government has set up the "Government and Private Sector Forum" to resolve the trade barrier issues face to face between the government and private process to seek for assistances and donors from international and national organizations and country partners to promote this sector. Moreover, to absorb foreign direct investment (FDI), the government has provided incentives to export–oriented companies with an annual duty exemption on imports of machineries, and inputs such as raw materials and accessories directly used in the production. It also has created special economic zones and so forth. In contrast, the Cambodian government policy lacks supporting industry, especially for the textile industry like making raw materials (fabric or accessory) domestically, which is a disadvantage for Cambodia.

5.3.10 Chance

The Table 5.21 shows the respondents' opinion of importance about chance in the garment sector. Political stability in the host country are computed as mean = 4.6000, S.D = .56758 and steady growth of the national income as mean = 4.2200, S.D = .71297, which is of the most and highest importance level respectively influencing competitiveness. While 'To avoid government environmental control imposed in their country' (mean = 3.2467, S.D = .78524) is of medium importance.

Briefly, Cambodia's political stability and steady growth of national income over the last 10 years are improving and developing most sectors in Cambodia. Especially, the garment sector has played a key role in economic growth and creation of employment and could attract more foreign direct investment in the textile and clothing sector as shown in chapter 3 (3.1 garment industry in Cambodia).

Table 5.21 Descriptive Statistics of Chance

No.	Competitive Factors	Mean	S.D	N	Importance Level
1.	To avoid government environmental control imposed in their country	3.2467	.78524	150	Medium importance
2.	Political stability in the host country	4.6000	.56758	150	Most importance
3.	Steady growth of the national income	4.2200	.71297	150	High importance

Source: Ibid

Regarding 'To avoid government environmental control imposed in their country' may be perceived not as affecting competitiveness of Cambodia's garment industry.

5.4 The Strengths and Weaknesses, and Opportunities and Threats (SWOT) Analysis of Competitiveness of the Garment Industry in Cambodia

Strategic management is the set of managerial decisions and actions that determines the long–run performance of a corporation. It includes environmental scanning (both external and internal), strategy formulation (strategic or long–range planning), strategy implementation, and evaluation and control. The study of strategic management, therefore, emphasizes the monitoring and evaluating of external opportunities and threats in light of a corporation's strengths and weaknesses. Originally called business policy, strategic management incorporates strategic planning, environmental scanning, and industry analysis (Wheelen & Hunger, 2006).

In this thesis, both hard copies and primary data were used to monitor the strengths, weaknesses, opportunities and threats (SWOT) analysis of Cambodia's Garment Industry. The SWOT analysis results are as fellows:

+ Strengths

a**.** Some acquired know–how and experience in the industry, including within the medium skilled labor force;

b. Strong offshore investors with technical and commercial know–how and capital resources;

c. Preferential access under GSP and NFM regime (Trade Act relief tariff);

d. Large pool of unskilled cost–effective labor available from the rural areas to support expansion of the industry if required (available labor force);

e. Large levels of exports and experience in the export markets;

f. Positive market image, especially in the area of labor utilization and compliance as well as no sweatshops;

g. Cheap and abundant labor force.

+ Weaknesses

a. Industry heavily focused on Cut, Make and Trim (CMT) garment manufacturing, with all major decisions across the board taken off–shore;

b. Lack of inter–industry linkages and few serious subcontractors, and policy impediments to backward linkage development like textile;

c. Weak marketing system (most export garment products are based in headquarters at abroad);

d. No Cambodian leading investors in the garment industry;

e. Low level of human resource development and low skill base resulting in low productivity or lack of production development and low labor productivity partly due to outdated technology;

f. Limited training given, especially for middle management;

g. Shortage of skilled middle–management/shop floor supervision/skilled workers;

h. Lack of know how in design & production techniques and management & marketing strategies;

i. Serious recruiting expatriate supervisors leading to culture and communication gaps;

j. Low levels of local value added, and low levels of technology as well;

k. Longer lead times than competitors;

l. High levels of official and unofficial transaction costs, especially in the import/export processes;

m. High costs of power and other utilities.

+ **Opportunities**

a. Potential in the US market: if the GMAC and the government of Cambodia lobby the US government for preferential market access to the US market, Cambodia will be granted like AGOA;

b. More local suppliers of fabrics and accessories are made domestically;

c. Potential to enhance the productivity of the labor force through training and better human resource practices;

d. Potential in the EU market as former Eastern European members of the EU become less competitive;

e. Potential promotion through buyer forums;

f. The establishment of Export Processing Zones;

g. Regional integration with ASEAN countries and ASEAN cumulation / accumulation;

h. Benefits of WTO membership;

i. Increasing transfer of skills from buyers to manufacturers; Increasing local design capacity;

j. Reduction of unofficial payments;

k. Good image with "no sweatshop" and good labor compliance monitored by ILO.

+ **Threats**

a. Performance of competitor countries, such as China, Bangladesh, Vietnam, etc;

b. Unwillingness of local investors to enter the garment sector;

c. Phasing out of preferential market access agreements;

d. Possible instability resulting from labor disputes and the high costs resulting from certain provisions in the labor law;

e. Low productivity (orders can be reduced);

f. High tariff rates in the US market by (discriminatory effects of trading blocs).

CHAPTER 6

DETERMINANTS OF COMPETITIVENESS IN THE GARMENT INDUSTRY: THE LOGIT MODEL

This chapter contains two main sections: the Logit model and an estimation of the Logit model using survey data.

6.1 The Logit Model

The Logit model is a widely used statistical parametric model for modeling binary dependent variables. As long as Logit regression (Logit) analysis is a unit/multivariate technique, which estimates the profitability of an event that occurs or not by predicting a binary dependent outcome from a set of independent variables (Kramer, 1991; Maddala, 1983). Moreover, the Logit model is very similar to the Probit model.

The general form of the Logit model is presented as follows:

$$Y_i^{ik} = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \cdots + \beta_k X_{ik} + \varepsilon_i \qquad i = 1, 2, \ldots, n \tag{6.1}$$

Where: Y_i^{ik} is a dependent variable, and it is the response in the ***i***th case,

X_{i1}, X_{i2}, **.....**, X_{ik} are the values of the independent variables in the ***i***th case, assumed to be known as constant.

β_0, β_1, ….., β_k are parameters, ε_i following a normal distribution with mean 0 and variance σ^2 or are independent $N(0, \sigma^2)$.

Y_i^{ik} is unobservable but $y_i = \begin{cases} 0 \text{ if } Y_i^{ik} < 0 \\ 1 \text{ if } Y_i^{ik} \geq 0 \end{cases}$

$P\,(Y_i = 1) = P\,(Y_i^{ik} \geq 0) = P\,(u_i \geq -\beta_1 - \beta_2 X_{2i} - \cdots - \beta_k X_{ki}$

$= F(\beta_1 + \beta_2 X_{2i} + \cdots + \beta_k X_{ki})$ where F is the cumulative distribution function of the random disturbance u_i. It is assumed that the probability density function of u_i is symmetric. In the Probit model, it is assumed that $u_i \sim N(0, \sigma_u^2)$. In the Logit model, it is assumed that e_i has what is known as a logistic distribution, where X indicates the random variable vector in section (6.2) below.

The Probability Density Function (PDF) of u_i is given by $f(u_i) = \dfrac{e^{u_i}}{(1 + e^{u_i})^2}$ (6.2)

The model is estimated by the Maximum Likelihood Estimator (MLE). It can be readily verified that cumulative distribution function (CDF) of u_i is $F(u_i) = \dfrac{e^{u_i}}{1 + e^{u_i}}$.

From above, it can be readily seen that

$$P(Y_i = 1) = P(Y_i^{ik} \geq 0) = P(e_i \geq -\beta_1 - \beta_2 X_{2i} - \cdots - \beta_k X_{ki}$$

$$= F(\beta_1 + \beta_2 X_{2i} + \cdots + \beta_k X_{ki}) = \frac{e^{\beta_1 + \beta_2 X_{2i} + \cdots + \beta_i X_i}}{1 + e^{\beta_1 + \beta_2 X_2 + \cdots + \beta_i X_i}}$$

and $$P(Y_i = 0) = 1 - \frac{e^{\beta_1 + \beta_2 X_{2i} + \cdots + \beta_i X_i}}{1 + e^{\beta_1 + \beta_2 X_2 + \cdots + \beta_i X_i}} = \frac{1}{1 + e^{\beta_1 + \beta_2 X_{2i} + \cdots + \beta_i X_i}}$$

$$\frac{P(Y_i = 1)}{P(Y_i = 0)} = e^{\beta_1 + \beta_2 X_{2i} + \cdots + \beta_i X_i}$$

or $$\text{In} \left[\frac{P(Y_i = 1)}{P(y_i = 0)}\right] = \beta_1 + \beta_2 X_{2i} + \cdots + \beta_k X_{ki} \qquad (6.3)$$

Or, the log of odds that $Y_i = 1$ is a linear function of the explanatory variables.

Marginal effects in the Logit model can be explained by equation 6.4 as follow:

$$\frac{æ(y_i = 1)}{æ_{ji}} = F'(\beta_1 + \beta_2 X_{2i} + \cdots + \beta_k X_{ki})\,\beta_j = \frac{e^{\beta_1 + \beta_2 X_{2i} + \cdots + \beta_i X_i}}{(1 + e^{\beta_1 + \beta_2 X_{2i} + \cdots + \beta_i X_i})^2}\ \beta_j \qquad (6.4)$$

6.2 The Factors Affecting Competitiveness of Cambodia's Garment Firms while Firms' Growth Rate of Export Volume Increased ≥ 10% in at Least one Market

In this section, a rule for the dependent variable (Y_i) is determined in the following. If the growth rate of the garment companies in one market exceeded greater than 10% (i.e. r ≥ 10% the score for (Y_i) is given as one (1). The Logit model is applied in order to analyze the competitiveness of the garment industry in such a way that the purposed factors affect export growth substantially. Finally, the equation summarizing variables predictors of specific models are shown as follows:

$$\text{EGGIC} = F\,(\text{FC, RSI, FSSR, G}) \qquad (6.5)$$

To test the conceptual model in Equation (6.5), the following specific model formula is examined:

$$\text{EGGIC} = \beta_0 + \beta_1\text{FC} + \beta_2\text{RSI} + \beta_3\text{FSSR} + \beta_4\text{G}$$

$$\text{EGGIC} = \beta_0 + \beta_1\text{PSC} + \beta_2\text{LFA} + \beta_3\text{T} + \beta_4\text{TUSM} + \beta_5\text{EUROO} + \beta_6\text{DETB} + \beta_7\text{KG} + \beta_8\text{BPD} + \beta_9\text{HAA} + \beta_{10}\text{PMA}$$

Where: EGGIC : Export Growth of the Garment Industry in Cambodia

FC : Factor Condition

- PSC : Power Supply Cost
- LFA : Labor Force Availability
- T : Technology

RSI : Related and Supporting Industry

- TUSM : Tariff in the US Market
- EUROO : EU Rules of Origin
- DETB : Discriminatory Effects of Trading Blocs

FSSR : Firms' Strategy, Structure and Rivalry

- KG : Knitwear Garment
- BPD : Buyers' Purchasing Order Directly
- HAA : Headquarter at Abroad

G : Government

- PMA ; Preferential Market Access

Logit Model:

The results of the statistic testing on equation 6.5 are presented in Table 6.1. The regression equations based on the linear specification above yields the best statistical results among other specifications because all variables are significant (or *p*–value) and their coefficient of determination (**t** and $\overline{R}^2$) are high. Therefore, in selecting the significant variables (representative variables) of the model; Model 1, 2, 3 and 4 are reported in Table 6.1 to explain the main factors influencing competitiveness of Cambodia's garment industry. Six crucial factors of Porter's Diamond Model are tested using our survey data in this study.

Regression Results

The logit linear regressions are estimated using ordinary least squares (OLS) to analyze the factors determining export growth in the selected major markets. It is regressed in the firms' export growth on variables related to the firms' characteristics as mentioned above[1].

Model 1:

Labor force availability has a positive effect on the growth rate of the garment industry in Cambodia. The regression results for the conceptual model as mentioned in Table 6.1 show that the **beta coefficients** are the effects of changes in 'labor force availability' on export growth. On this count, labor force availability still make by far the greatest contribution, because a unit change in 'labor force availability' had led to a 0.266 unit change in the growth rate of the garment industry in Cambodia. This ordering of the standardized beta coefficients of labor force availability (β_1) is supported by the correlation between labor force availability and export growth. The predictor with the largest beta coefficient also has the largest correlation with export growth. The adjusted R–squared ($\overline{R}^2$) of labor force availability accounted for by regression displays 0.212 or (21.2%) of the variation in competitiveness.

Moreover, regarding the results of the regression analyses of competitiveness, the t–value shows 2.537. This means that t–value is greater than 1.5. It could be explained by labor force availability suggesting a positive significant effect between the labor force availability and the growth rate of the garment industry at 5% levels of significance. The *p*–value of labor force availability displays $p = 0.012$, which is close to zero (See Appendix D).

---

[1] The model with 'unskilled labor force' is also estimated. However, the results are no reported because the test–statistic for this variable is insignificant.

Table 6.1 Logit Regression Results for the Competitiveness of Cambodia's Garment Industry

Variables	Model 1	Model 2	Model 3	Model 4
Power supply costs	–	–	0.359 (3.848)	–
Labor force availability	0.266 (2.537)	–	–	–
Technology	–	–	–	0.359 (3.686)
Tariffs in the US market	–	–	0.119 (1.275)	0.105 (1.078)
EU rules of origin	0.101 (1.072)	–	–	–
Discriminatory effects of trading blocs	–	0.124 (1.685)	–	–
Knitwear garments	0.211 (2.802)	0.229 (3.078)	–	–
Buyers' purchasing order directly	0.097 (1.205)	–	–	–
Channel parent company/Headquarters at abroad	–	– 0.166 (– 1.008)	–	–
Preferential market access	–	0.493 (2.988)	–	–
(Without Constant)			–	
Observation	150	150	150	150
Degree of freedom	4	4	4	4
R– squared	0.233	0.240	0.195	0.189
Adjusted R– squared ($\overline{R}^2$)	0.212	0.219	0.184	0.178
F–statistic	11.085	11.542	17.935	17.248
Prob (F–statistic)	0.000	0.000	0.000	0.000

Note: (–) represents that the variable is omitted from the statistical analysis because of insignificant results. Dependent Variable: Export growth

Therefore, the conceptual model is accepted. There is a positive significant effect between labor force availability and competitiveness of the garment industry in Cambodia.

EU rules of origin have a positive effect on the export growth rate of the garment industry in Cambodia. The regression results for the conceptual model in Table 6.1 indicate that the standardized coefficients *(β_2) and* the adjusted R–squared ($\bar{R}^2$) for regression of 'EU rules of origin' display 0.101 and 21.2% respectively of the variation on competitiveness of the garment industry. Moreover, with respect to the results of the regression analyses of the competitiveness, the t–value shows 1.072 (could be significant at 90%). This means that t–value is less than 1.50. It could be explained by the 'EU rules of origin' factor suggesting a positive significant effect between EU rules of origin and the export growth rate of the garment industry at 10% levels of significance. The *p*–value of EU rules of origin indicates $p = 0.286$, which is close to 0 (See Appendix D). Therefore, the conceptual model suggests that there is a positive significant effect between EU rules of origin and competitiveness of the garment industry in Cambodia.

Knitwear garments have a positive effect on the strong growth of the garment industry in Cambodia. As the regression results for testing the conceptual model (see Table 6.1) reveal that the standardized coefficients *(β_3)* and the adjusted R–squared ($\bar{R}^2$) for regression of 'knitwear garments' indicate 0.221 and 21.2% respectively of the variation on competitiveness of the garment industry in Cambodia. Moreover, in the results of the regression analyses, the t–value shows 2.802. This means that the t–value is greater than 1.50. It could be explained by knitwear garments, suggesting a positive significant effect between knitwear garments and the strong growth of the garment industry at 5% levels of significance. The *p*–value of 'knitwear garments' displays $p = 0.006$, which is close to zero (See Appendix D).

Therefore, the conceptual model supports the fact that there is a positive significant effect between knitwear garments and competitiveness of the garment industry in Cambodia.

Buyers' purchasing order directly has a positive effect on the growth rate of the garment industry in Cambodia. The regression results for the conceptual model in Table 6.1 point out that the standardized coefficients (β_4) and the adjusted R–squared ($\bar{R}^2$) for regression of 'buyers' purchasing order directly' are 0.097 and 21.2% of the variation. Moreover, concerning the results of the regression analyses, the t–value displays 1.205 (which could be significant at 90%). This means that t–value is less than 1.50, but it could be explained by the buyers' purchasing order directly, suggesting a positive significant effect between 'buyers' purchasing order directly' and the growth rate of the garment industry at 10% levels of significance. The *p*–value of 'buyers' purchasing order directly' shows p = 0.230, which is close to 0 (See Appendix D). Therefore, the conceptual model is accepted. There is a positive significant effect between buyers' purchasing order directly and competitiveness of the garment industry in Cambodia.

The presence of multicollinearity was tested by obtaining the tolerance and Variance Inflation Factor (VIF) statistics from a linear regression using the original set of variables (Field, 2005). To test for multicollinearity this thesis applies the tolerance and the VIF, which are reported in Appendix D. A tolerance close to 1 means there is little multicollinearity, where as a value close to 0 suggest that multicollinearity may be a threat. The reciprocal of the tolerance is known as the VIF. The VIF shows that how much the variance of the coefficient estimate is being inflated by multicollinearity. VIFs is probably superior to examining the bivariate correlations. A commonly given rule of thumb is that VIFs of 10 or higher (or equivalently, tolerances of .10 or less) may be reason for concern. In model 1, the multicollinearity does not exist.

Model 2:

Discriminatory effects of trading blocs have a positive effect on the strong growth of the garment industry in Cambodia. The regression results for the conceptual model in Table 6.1 reveal that the **beta coefficients** are the effects of changes in 'labor force availability' on the export growth. On this count, labor force availability still makes by far the greatest contribution, because a unit change in 'discriminatory effects of trading blocs' had led to a 0.124 unit change in the strong growth rate of the garment industry in Cambodia. This ordering of the standardized beta coefficients of discriminatory effects of trading blocs (β_5) is supported by the correlation between the strong growth and discriminatory effects of trading blocs. The predictor with the largest beta coefficient also has largest correlation with export growth. While the adjusted R–squared ($\overline{R}^2$) of power supply costs accounted for by regression displays 0.219 or (21.9%) of the variation on competitiveness of the garment industry in Cambodia. Moreover, with regard to the results of the regression analyses of competitiveness of the garment industry in Cambodia, the t–value reveals 1.685. This means that t–value is greater than 1.50. It could be explained by discriminatory effects of trading blocs, suggesting a positive significant effect between discriminatory effects of trading blocs and the growth rate of the garment industry in Cambodia. The *p*–value of discriminatory effects of trading blocs shows p = 0.094, which is close to zero (See Appendix D).

Therefore, the conceptual model is accepted. There is a positive significant effect between discriminatory effects of trading blocs and competitiveness of the garment industry in Cambodia.

Knitwear garments have a positive effect on the strong growth of the garment industry in Cambodia. The regression results for the conceptual model (see Table 6.1) point out that the standardized coefficients *(β_6)* and the adjusted R–squared ($\overline{R}^2$) for regression of knitwear garments show 0.229 and 21.9% of the variation on competitiveness of the garment industry in Cambodia. Moreover, in regard to the results of the regression analyses, the t–value presents 3.078. This means that t–value is greater than 1.50. It could be explained by knitwear garments, suggesting again a positive significant effect between knitwear garments and the export growth rate of the garment industry at 5% levels of significance. The *p*–value of knitwear garments displays p = 0.002, which is close to 0 (See Appendix D).

Therefore, the conceptual model is accepted. There is a positive significant effect between knitwear garments and competitiveness of the garment industry in Cambodia.

Channel parent company has a positive effect on the growth rate of the garment industry in Cambodia. As the regression results for testing the conceptual model (see Table 6.1) indicate that the standardized coefficients (β_7) and the adjusted R–squared ($\overline{R}^2$) for regression of channel parent company indicate – 0.166 and – 21.9% of the variation on competitiveness of the garment industry in Cambodia. In contrast, in regard to the results of the regression analyses, the t–value displays – 1.008 and this means that t–value is less than – 1.50. It could be explained by channel parent company suggesting no positive effect between channel parent company and the strong growth of the garment industry at 5% levels of significance. The significance is at a 10% level. The *p*–value of channel parent company shows p = 0.315, which is close to 0 (See Appendix D).

Therefore, the evidence supports the conceptual model. There is positive significant effect between channel parent company and competitiveness of the garment industry in Cambodia.

Preferential market access has a positive effect on the export growth of the garment industry in Cambodia. As the regression results for testing the conceptual model in Table 6.1 show that the standardized coefficients *(β_8)* and the adjusted R–squared ($\overline{R}^2$) for regression of 'preferential market access' show 0.493 and 21.9% respectively of the variation on competitiveness of the garment industry in Cambodia. Moreover, concerning the results of the regression analyses, the t–value indicates 2.988. This means that t–value is greater than 1.50. It could be explained by preferential market access, suggesting a positive significance between preferential market access and the growth rate of the garment industry at 5% levels of significance. The p–value of preferential market access displays $p = 0.003$, which is close to zero (See Appendix D).

Therefore, the conceptual model is accepted. There is a positive significant effect between preferential market access and competitiveness of the garment industry in Cambodia.

To test for multicollinearity model 2 applies the tolerance and the VIF, which are reported in Appendix D. The tolerance values and VIF indicate inconsequential collinearity. The results of the analysis showed that all independent variables in this regression equation has high tolerance values ranging from 0.191–0.192 and 0.936–0.961 and no VIF value exceeds 10, indicating an absence of multicollinearity problem (Mason & Perreault, 1991).

Model 3:

In model 3, dependent variable is unchanging and independent variables are ‘power supply costs and tariffs in the US market.’ The variable technology is excluded in the model because of the existence of multicollinearity. Thus, model 3 and 4 are estimated separately.

Power supply costs have a positive effect on the strong growth of the garment industry. As the regression results for testing the conceptual model in Table 6.1 indicate that the **beta coefficients** tell us rather more, because each gives the size and direction of standard deviations change on the dependent variable that will be produced by a change of standard deviation in the independent variable concerned (Kinnear & Gray, 2006). On this count, ‘power supply costs’ still make by far the greatest contribution, because a unit change in power supply cost has led to a 0.359 unit change in the growth rate of the garment industry. This ordering of the standardized beta coefficients of power supply costs (β_9) is supported by the correlation between the export growth and power supply costs. The predictor with the largest beta coefficient also has the largest correlation with export growth. The adjusted R–squared ($\overline{R}^2$) of ‘power supply costs’ accounted for by regression displays 0.184 or (18.4%) of the variation on competitiveness of the garment industry in Cambodia. Moreover, regarding the results of the regression analyses of competitiveness, the t–value of power supply costs accounted for by regression shows 3.848. This means that t–value is greater than 1.50. It could be explained by power supply costs suggesting a positive significant effect between power supply costs and the growth rate of the garment industry at 5% levels of significance. The p–value of 'power supply costs' displays $p = 0.00$, which is the great model (See Appendix D).

Therefore, the conceptual model reveals that there is a positive significant effect between power supply costs and competitiveness of the garment industry in Cambodia.

Tariffs in the US market have a positive effect on the export growth. As the regression results for testing the conceptual model in Table 6.1 point out that the standardized coefficients (β_{10}) and the adjusted R–squared ($\bar{R}^2$) for regression of 'tariffs in the US market' indicate 0.119 and 18.4% respectively of the variation on competitiveness of the garment industry in Cambodia. Moreover, concerning the results of the regression analyses, the t–value displays 1.275 (which could be significant at 90%). This means that t–value is less than 1.50. It could be explained by 'tariffs in the US market,' suggesting a positive significant effect between 'tariffs in the US market' and the export growth of the garment industry at 10% levels of significance. The p–value of 'tariffs in the US market' shows $p = 0.204$, which is close to 0 (See Appendix D).

Therefore, the conceptual model is accepted. There is a positive significant effect between 'tariffs in the US market' and competitiveness of the garment industry in Cambodia.

To test for multicollinearity model 3 applies the tolerance and the VIF, which are reported in Appendix D. The results of the analysis showed that all independent variables in this regression has high tolerance values ranging 0.625 and VIF value represents 1.599 only, indicating an absence of multicollinearity problem.

Model 4:

Technology has a positive effect on the growth rate of the garment industry in Cambodia. The regression results for the conceptual model shown in Table 6.1 indicate that the standardized coefficients (β_{11}) and the adjusted R–squared ($\bar{R}^2$) for regression of 'technology' display 0.359 and 17.8% respectively of the variation on competitiveness of the garment industry in Cambodia. Moreover, concerning the results of the regression analyses of competitiveness of the garment industry in Cambodia, the t–value presents 3.686. This means that t–value is greater than 1.50. It could be explained by technology suggesting a positive significant effect between technology and the growth rate of the garment industry in Cambodia. The p–value of 'technology' shows $p = 0.00$, which is the best model (See Appendix D).

Therefore, the conceptual model supports that there is a positive significant effect between technology and competitiveness of the garment industry in Cambodia.

Tariffs in the US market have a positive effect on the export growth. As the regression results for testing the conceptual model in Table 6.1 point out that the standardized coefficients (β_{12}) and the adjusted R–squared ($\overline{R}^2$) for regression of 'tariffs in the US market' indicate 0.105 and 17.8% respectively of the variation on competitiveness of the garment industry in Cambodia. Moreover, concerning the results of the regression analyses, the t–value displays 1.078 (which could be significant at 90%). This means that t–value is less than 1.50. It could be explained by 'tariffs in the US market,' suggesting a positive significant effect between 'tariffs in the US market' and the export growth of the garment industry at 10% levels of significance. The p–value of 'tariffs in the US market' shows p = 0.283, which is close to zero (See Appendix D).

Therefore, the conceptual model is accepted. There is a positive significant effect between 'tariffs in the US market' and competitiveness of the garment industry in Cambodia.

To test for multicollinearity model 4 applies the tolerance and the VIF, which are reported in Appendix D. The results of regression has high tolerance values ranging from 0.577 and no VIF value exceeds 10. In model 4, the multicollinearity problem does not exist.

Conclusion of Regression Results Testing

The testing regression reflects between factors affecting competitiveness and the determinants of export growth in the garment industry in Cambodia. The three model specifications results: (1) Model 1 determines the export growth by labor force availability, EU rules of origin, knitwear garments, and buyers' purchasing order directly. (2) Model 2 determines the export growth by discriminatory effects of trading blocs, knitwear garments, headquarters at abroad, and preferential market access. (3) Model 3 determines the export growth by power supply costs and tariffs in the US market. (4) Model 4 determines the export growth by technology and tariffs in the US market.

CHAPTER 7

CONCLUSION

This conclusion chapter provides the findings and the competitiveness position of Cambodia's garment industry. Finally, recommendations will be provided for strategic development and also the guidelines are proposed for enhancing competitiveness.

7.1 Findings of the Study

Cambodia's garment industry is a mainstay for Cambodia's industries economic growth and employment creation. It has achieved great success over the last decade, driving the national economy (accounting for around 8.7% of GDP), and making the greatest national contribution to poverty reduction by creating over 340,000 direct jobs, and exporting about USD 2.9 billion worth of garments in 2007.

However, Cambodia's garments sector has been facing stiffer competition in the global market at the beginning of 2005, and with Vietnam becoming a WTO member in 2007. The possibility of the greatest competition came when the US and EU lifted safeguard measures on China at the end of 2008. The big challenge for Cambodian producers is whether or not they can be competitive on costs and services when safeguard measures are lifted.

This thesis has identified strategies for improving competitiveness for Cambodia's garment industry while maintaining Cambodia's strong record on export growth and employment. This paper provides a substantial scope for increasing the nation's and firms' ability for competitive productivity through improved management systems in the factors of the Porter Diamond Model.

The innovations at factory–level are summarized and analyzed in this thesis, including the competitive strengths and weaknesses, and taking good opportunities and resolving harmful threats to Cambodia's garment manufacturers, and enhancing productivity in Cambodia against that of garment industries elsewhere.

Over three –hundred forty thousands Cambodians are employed in the garment industry in 2007. Most garment workers are women from rural villages, but they have a shortage of skills and education or literacy. Cambodian garment exports to the global market increased from about 1.9 billion US dollars in 2004 up to approximately 2.9 billion US dollars in 2007.

Most factories belong to foreign owners from China, Hong Kong, South Korea, Taiwan and so forth. Most of the factories produce for exports. The United States and the European Union buys roughly the most of Cambodia's exports, and Canada and Japan buys most of the rest. Cambodia's garment exports are manufactured for brand label clients such as the Gap, Nike, Reebok, Adidas, Abercrombie & Fitch, Marks & Spencer, H & M, Wal–Mart, Levi Strauss & Co., Disney Company, Sears, Columbia, Perry Ellis, Liz Claiborne, Fruit of the Loom, and Nautica.

Cambodia's garment firms have clustered as the Garment Manufacturers Association of Cambodia (GMAC) with some acquired knowledge and experience in the industry, including within the semi–skilled labor force and strong offshore investors with technical and commercial know–how and capital resources. In addition, Cambodia still has been granted under GSP and MFN preferential support in terms of duty–free access–to the major global markets. Moreover, Cambodia enjoys a labor cost advantage against major competitors. The large pool of unskilled cost–effective labor is available from the rural areas to support expansion of the industry.

The government of Cambodia has created the "Government and Private Sector Forum." The government also has established a "trade facilitation" working group to work on reducing the amount of paperwork, cost, and time required for importing and exporting goods.

The concepts of competitiveness above in some initiatives should be considered as prior policies to areas that are disadvantageous for the competitiveness of Cambodia's garment industry. The lack of skilled and/or trained human resources, which impedes productivity growth, is a major reason for most developing countries' inability to take full advantage of trade liberalization, and for others, to threaten their survival. The quality of human resources could be improved by strengthening the nation's education system. The quality of education should be high, not only for public schools, but also for higher education in particular in business and management schools in order to meet business requirements. In addition, institutes of the government of Cambodia really need highly knowledgeable officials.

A firm's competitiveness is the ability for it to survive and prosper, given the competition of other firms for the same profits, with the capacity to make products that provide more value to the customer than rival products, leading to higher sales and higher profits. In addition, a company's competitiveness is the ability to provide products and services more effectively and efficiently than relevant competitors. Moreover, a firm must supply product demands and standards quickly and effectively at competitive prices, including its differentiated demand, flexibility, quality, inventory reduction, efficient production cycle, shorter lead–time, innovative capacity, effective marketing, brand image, and so on. Measures of competitiveness at the firm level include firm profitability and measures of cost and quality, the exports or foreign sales divided by output, and regional or global market share. Performance in the international marketplace provides a direct measure of the firm's competitiveness.

In that context, private sector must cooperate with governments to increase investment in specialized training and development, nurturing Cambodia–based supplier industries, and satisfying the demand of international buyers as suggested by the Diamond model. When both the business and the government step up to new ways of thinking and competing, Cambodia will truly prosper in the new millennium through the garment industry.

To study the major factors affecting competitiveness in Cambodia's garment factories, the survey was conducted on 150 garment factories in Cambodia of which have been registered in the Garment Manufacturers Association of Cambodia (GMAC) and are situated in Phnom Penh, and Kandal and Kompong Speu provinces. Data survey was analyzed by using the SPSS program.

7.2 Summary of Findings of the Survey

To better understand the research findings, these facts are listed in Appendix H. A summary of the findings of the survey are discussed as follow:

7.2.1 Physical Infrastructure

Cambodia's infrastructure is still weak. It is a serious barrier to attracting more FDI for further developing the garment sector. The survey shows that the railway was considered by respondents as a weak section accounting for 82.7% while mean and standard deviations indicate 1.1733 and .37980 respectively. The power supply costs were marked on the less importance level accounting for 93.3% by the respondents with its mean and standard deviations showing 1.6133 and .61072 respectively. This means that the respondents distinguished the power supply costs to be more expensive than other countries in the region. In brief, competitiveness requires strong capability in this sector, but Cambodia's physical infrastructure is perceived as not strong enough. In particular, the Cambodian railways were mostly destroyed in the dark history over the past three decades. In addition, the electricity supply costs are high compared to neighboring countries like Thailand and Vietnam. However, the regression result expresses that power supply costs have a positive and significant effect between power supply costs and the growth rate of the garment industry at 5% levels of significance. Therefore, Cambodia needs to compete to survive. It should be deeply considered to develop and restore these parts because they are sensitive and high in production costs, hurting investors' confidence to set up business in Cambodia. If this sector will be improved, Cambodia can absorb more new FDI.

7.2.2 Labor Force Resources

Cambodia's available labor forces are perceived by respondents to be 58.7%, accounting for a high importance level while mean and standard deviation indicate 3.7200 and .58067 respectively. Moreover, the regression result indicates that the standard beta coefficients, adjusted R–squared ($\overline{R}^2$) and t–value of labor force availability shows 0.266, 0.212 and 2.537 respectively which has significant effect for the labor force availability and the growth rate of the garment industry at 5% levels of significance. On the other hand, "Cambodian workers are cheap and abundant" is perceived as 63.3% by the respondents and accounting for high importance levels while mean and standard deviation points out 3.6733 and .51157 respectively. Most

Cambodian workers are employed in Cambodia's garment industry, but they have shortage of skills and education or literacy. They emigrate from rural areas. 65.3% of the respondents consider the Cambodian labor force resources to be unskilled. Its mean and standard deviation indicate 3.9267 and .78660 respectively. According to the globalization context shifts, the building capacities of human resources (BCHR) are very important to capture national competition in the international platform because business climates need to produce quality goods and services to satisfy modern markets in the arena, so that the country can support enough human resources capacity for competitiveness. Thus, Cambodian human resources development should develop and improve as the prior parts in the society enhance the types of the specific skills, techniques, and various educations that are fulfilled in both current and future industry requirements.

7.2.3 Local Financial Resources

The availability of local financial capital resources as perceived as 54.7% by the respondents while its mean and standard deviation show 2.1133 and .73764 respectively accounting for less importance levels. Thus, local financial capital resources in Cambodia are difficult to find for supporting the country's business environment. In particular, access to loans remains challenging for businesspersons. In fact, Cambodian banks provide very slow service, but the borrowing interest rates are too high, so foreign investors do not deposit their money in Cambodian banks, because they perceive that Cambodian banks are not secure. Most of them transfer some cash from headquarters to Cambodian banks only one time per month, especially, for preventing one day wage for their workers. Therefore, the Royal Government of Cambodia wishes to absorb foreign direct investment to make business in Cambodia, which necessitates political stability and safety without any kidnapping, robbery and theft. These problems should be solved as a priority in the society to give a confidence to Cambodian and foreign investors.

7.2.4 Technology and Innovation Activities

The level of medium technology used in the garment industries in Cambodia's garment firms is perceived as medium importance level, but 62.7% of the Cambodia's garment manufacturing companies still employ low production. The regression result emphasizes that the t–value presents 3.686 is greater than 1.50. The technology has a positive effect between technology and the growth rate of the garment industry in Cambodia at 5% levels of significance.

In addition, Cambodia's garment firms are perceived to lack spending on research and development (R & D) by 88% of respondents. The concept of technology adoption has traditionally been treated as innovation in business. Among the frequently cited benefits of innovation are reduced direct labor costs, reduced production costs, reduced product development time, reduced inventory, more efficient layout and use of technology, better quality, less waste, improved productivity, shorter manufacturing lead time, and quicker response to market shifts.

How can Cambodia's garment companies compete in the international market if most of them believe that technology is obtained from licensing or imitating foreign companies and still proceeds production processes with intensively unskilled labor and rudimentary technology?.

On the contrary, the commodities require high quality and delivery lead–time in the pool of markets, and in fact, technology is necessary to transfer innovation through R & D in the main parts of the garment firms.

7.2.5 Specialized Market

Most Cambodian garment factories have their objectives for exporting based on relief from tariffs under a Most Favored Nation (MFN) or the Generalized System of Preferences (GSP). However, 44%, 41.3%, and 38% of tariffs in the US market, the EU rules of origin, and discriminatory effects of trading blocs are perceived by the respondents respectively. Cambodian exporters still suffer from tariffs in the US market, and it is so difficult to qualify for the EU rules of origin requirements. Moreover, the regression results represented in the conceptual model reflects that tariffs in the US market, the EU rules of origin and discriminatory effects of trading blocs, all have a positive effect between export growth of the garment industry at 10% and 5% levels of significance. The US and the EU markets are very important to the T & C industry in Cambodia. Thus, the government and private sector should take good actions to avoid discriminatory measures of protection in the developed countries to Cambodia.

7.2.6 Structure of Cambodian Garment Firms

Most of Cambodian garment companies run their business by operating Cut, Make and Trim (CMT) and employ unskilled labor forces, relying on labor–intensive manufacturing based on foreign direct investment. Every business operation is handled by their parent companies in positions such as China, Hong Kong, Malaysia, Singapore, South Korea and Taiwan. However, most of the garment firms in Cambodia are perceived as 67.3% and 68% by the respondents to make woven cut and sew garments, and knit cut and sew garments respectively, but only 6.7% are produced as knitwear garments. In accordance with the analysis of the Logit model, knitwear garments have positive significant effects between knitwear garments and the export growth rate of the garment industry at 5% levels of significance. As a result, Cambodian knitwear garments are the most beneficial, but both knit garments and woven garments depend on the foreign direct investment to make apparel in Cambodia.

7.2.7 Garment Firms' Operation and Strategy

Cambodia's garment companies that compete internationally in the global niche market seem to depend on the parent company or headquarters abroad accounting for 86.7% of the Cambodian garment firms' strategy of distribution and finding their business partners as perceived by the respondents. Most Cambodian garment factories have been own–invested by foreign investors accounting for 83 to 96% of who specialized experiences to make garment products in Cambodia. Moreover, the analysis indicates that there are no positive effect between the channel parent company and the strong growth of the garment industry at 5% levels of significance, but have significance at the 10% level. In other words, buyers' purchasing orders are found directly to have the same result as above. In a nutshell, Cambodia's garment industry should carry out a careful strategy to capture both 'headquarters abroad and buyers' purchasing order directly.' These can help this sector to gain access smoothly in the global niche market.

7.2.8 Government

Preferential market access is perceived as 78.7% by the respondents accounting for high importance levels (mean = 4.1867, S.D = .87766) respectively. Moreover, preferential market access is found to have positive significance between preferential market access and the growth rate of the garment industry at 5% levels of significance.

In order to maintain competitiveness of Cambodia's garment industry, it is vital to address both supply and demand–side constraints. The current context will require new national policies and reforms. However, supportive international and national policies will be of even larger importance to secure the future prospects of Cambodia's garment exports.

In addition, 'To enjoy special incentives given by host governments to foreign and domestic investment' were perceived as 90%, accounting for high importance levels while mean and standard deviation displays 4.4000 and .66555 respectively. In sum, the social, economic, and political ramifications (World financial crisis and Chinese garment exports were left as safeguard measures by the US and EU restriction in the end of 2008) of potential widespread factory closings in response to global garment market shifts are of great concern to industry players and policy analysts alike. Such concerns have stimulated the formulation of strategies for reinforcing the garment industry's competitive advantage. The Royal Government of Cambodia should be strongly committed to improving the good climate of investment through strengthening political stability, reducing costs associated with corruption, bureaucracy, paper work, and improving lead time for both import and export processing. Moreover, incentives should be promoted in the core priority sector like supporting the textile industry for making raw materials (fabrics or accessories) domestically to fulfill EU rules of origin requirements. Garment firms have to upgrade and strengthen their productivity qualities. If they do not, they will lose opportunities to access competitive markets.

7.2.9 Chance

Political stability in the host country was perceived as 96% by the respondents and accounted for the most important level (Mean = 4.6000 and SD = .56758). This point means investors need the country to keep political stability. In addition, steady growth of the national income was perceived as 83.4% and accounted for high importance level while mean and standard deviation display 4.2200 and .71297 respectively. These mean that the respondents need host countries to sustain stable politics and be able to boost economic growth. If the country can do this, investors will gain serious confidence, and they can take good opportunities for their business operation. Cambodia's political stability does not fully extinguish foreign investors' concerns about expropriation. Foreign investors are still afraid that opaque practices and the process of implementing the system can generate indirect costs for them and provide room for bureaucrats' arbitrariness. Most of all, the legislation and protection of legal rights of foreign investment and establishment of dispute settlement is required to strengthen the safety of foreign investment. Another idea is that all political parties, as well as the coalition government, declare together that there exists no possibility of expropriation of foreign investment.

The strengths, weaknesses, opportunities and threats (SWOT) analysis results of Cambodia's Garment Industry are as fellows:

Strengths

a. Some acquired know–how and experience in the industry, including within the medium skilled labor force;

b. Strong offshore investors with technical and commercial know–how and capital resources;

c. Preferential access under GSP and NFM regime (Trade Act relief tariff);

d. Large pool of unskilled cost–effective labor available from the rural areas to support expansion of the industry if required (available labor force);

e. Large levels of exports and experience in the export markets;

f. Positive market image, especially in the area of labor utilization and compliance as well as no sweatshops;

g. Cheap & abundant labor force.

Weaknesses

a. Industry heavily focused on Cut, Make & Trim (CMT)garment manufacturing, with all major decisions across the board taken off–shore;

b. Lack of inter–industry linkages & few serious subcontractors, & policy impediments to backward linkage development like textile;

c. Weak marketing system (most export garment products are based in headquarters);

d. No Cambodian leading investors;

e. Low level of human resource development & low skill base resulting in low productivity or lack of production development;

f. Limited training for middle management;

g. Shortage of skilled middle–management/shop floor supervision/skilled workers;

h. Lack of know how in design & production techniques and management & marketing strategies;

i. Serious recruiting expatriate supervisors leading to culture & communication gaps;

j. Low local value added & technology;

k. Longer lead times than competitors;

l. High levels of official & unofficial transaction costs;

m. High costs of power and other utilities.

Opportunities

a. Potential in the US market: if the GMAC & the government of Cambodia lobby the US for preferential market access to the US market, Cambodia will be granted like AGOA;

b. More local suppliers of fabrics & accessories are made domestically;

c. Potential to enhance the productivity of the labor force through training and better human resource practices;

d. Potential in the EU market as former Eastern European members of the EU become less competitive;

e. Potential promotion through buyer forums;

f. The establishment of SEZs;

g. Benefits of ASEAN & WTO membership;

h. Increasing transfer of skills from buyers to manufacturers;

i. Increasing local design capacity;

j. Reduction of unofficial payments;

k. Good image with "no sweatshop" and good labor compliance monitored by ILO.

Threats

a. Performance of competitor countries, such as China, Bangladesh, Vietnam, etc;

b. Unwillingness of local investors to enter the garment sector;

c. Phasing out of preferential market access agreements;

d. Possible instability resulting from labor disputes and the high costs resulting from certain provisions in the labor law;

e. Low productivity (orders can be reduced);

f. High tariff rates in the US market by (discriminatory effects of trading blocs).

In the Logit model, the research provides three model specifications and each one includes four variables. Thus, the results are discussed as follow:

Model 1 reflects that four variables have a positive effect (Beta and t–value), but two variables present a weak relationship. Concerning the Beta and t–value of EU rules of origin and buyers' purchasing orders directly show 0.101 & 1.072 and 0.097 & 1.205 respectively. These variables suggest a positive effect between EU rules of origin or buyers' purchasing order directly and the growth rate of the garment industry at 10% levels of significance; and two other variables are high rate scores (β and t–value).

Model 2 indicates that the three variables present high positive signs as seen in Table 6.1 of Chapter 6, and another one reflects the standardized beta coefficients and t–value of 'the channel parent company' for the regression display – 0.166 and – 1.008 respectively. It suggested the existence of a significant effect between 'the channel parent company' and the strong growth rate of the garment industry at 10% levels of significance.

Model 3 points out that both variables have a positive effect (Bata and t–value), but one presents a weak relationship that is the standardized coefficients of 'tariffs in the US market' displays $\beta_{10} = 0.119$, which the t–value indicates $1.275 < 1.50$. This suggests a positive effect between 'tariff in the US market' and the growth rate of the garment industry at 10 % levels of significance; and another is high rate scores (β and t–value).

Model 4 points out that both variables show positive signs. One again, 'tariffs in the US market' positive signs is a low rate scores that is the standardized coefficients of 'tariffs in the US market' displays $\beta_{12} = 0.105$, which the t–value indicates $1.078 < 1.50$. This also suggests a positive effect between 'tariff in the US market' and the growth rate of the garment industry at 10 % levels of significance; and the another one is high rate scores (β and t–value).

The Logit model emphasizes that the competitiveness of the garment industry has positive significant effect on sub–factor sets. These sub–factors should be considered as a strategic policy to prevent and enhance the competitiveness of Cambodia's garment sector.

7.3 Recommendations

In the globalization world, Cambodia should be required to find new strategies for the substantive development of competitiveness for Cambodia's garment industry, especially when the US and the EU lift safeguard measures on Chinese garment products. Development strategies of Cambodia's garment industry should be implemented for enhancing the competitiveness of the industry and for developing policies and actions to improve its weaknesses to become strengths. Its threats should be turned into opportunities, and its opportunities should be upgraded to move forward strengths. The major factors influencing competitiveness are summarized in this section. Some development strategies provide guidelines for implementing or strengthening economic growth and employment creation that affects competitiveness. This is considered as the important mechanism to get a competitive advantage in the global niche market and is explained in the following sections:

7.3.1 Improving Physical Infrastructure: It is very necessary for the national economy to survive. It can help and support the industry through cutting costs and shortening delivery time. Currently, Cambodia's garment industry is challenged with stiffer competition in the global niche markets. One of the most important aspects of Cambodia's economic policy is the further development of the energy sector to effectively respond to the increasing need for low–cost electricity supply. As reflected in the survey, the electricity supply costs were perceived as highly priced accounting for 93.3% by the respondents. In addition, the regression result for the Model 3 strongly commends that it has a positive significant effect between power supply costs and competitiveness of the garment industry in Cambodia at 5% levels of significance. The problems could be dealt with immediately and in the long run as follows:

1. Protecting trade barriers to investors who want to do business for the supporting electricity power supply in Cambodia and encourage them with relaxed tax concession or tax exemptions.

2. The head of the government should oversee the implementation closely. It can create more confidence in both external and internal own–investors to set up their business operation.

3. Consider to reduce the electricity power costs

On the other hand, the survey shows that the Cambodian railway system was considered by respondents as a weak section accounting for 82.7%. Thus, it needs to be rebuilt and developed seriously. The government should announce to private sectors, stakeholders, donors, and other countries that want to donate and fund to restore and improve this field.

7.3.2 Cambodian Human Resources Development: Cambodia should have taken prior actions to improve labor forces through opening several training courses about straightforward/specific skills to fulfill the requirements for tomorrow's garment industry. The survey reflects that the Cambodian labor force resources were perceived as unskilled, accounting for 65.3% by the respondents. Therefore, the government and the GMAC should cooperate strongly for skilled workers development and glorify existing human resources. They should be opening training courses for better skills and techniques relating to the garment sector because these will not only allow factories to increase their productivity, but also shift to higher value added products. Skills development should not only be limited to operational skills but also to managerial and supervisory skills, engineers, mechanics, and others. If this issue will be dealt with, this sector will be able to gain more Cambodian skills to replace the foreign supervisory positions and other careers in the garment factories, and it can help to cut costs. Moreover, the government of Cambodia should continue to develop human resources heavily through enhancing and strengthening the education system from primary school up to high school in the rural areas. In addition, "Fostering Managerial and Marketing Capability" is necessary to train local managers and marketing directors. Workers who have the potential to reach the managerial level or initiate their own spin–offs need to be provided with chances for managerial training and access to finance for business start–up. Moreover, "Raising Professional Researchers and designers" is required to raise high powered man power including specialists in Computer–Aided Design (CAD) or Computer–Aided Manufacturing (CAM), and more researchers in textile and fashion design. In order to leap from the Original Equipment Manufacturer (OEM) step to higher product development, Cambodia needs to build up an international level of higher educational institutes that specialize in the textile and clothing industry.

7.3.3 Local Financial Resources: Even though Cambodia has just started and developed this sector in the last few years, it still lacks strategy to foster and sustain this sector to absorb more new foreign direct investment and to support existing investors in Cambodia. The availability of local financial capital resources in Cambodia are difficult to find for supporting the country business environment as perceived as 54.7% by the respondents. Therefore, the strategies should be weighted and reformed. In strategic management, Cambodia should be absolutely committed to enhance the confidence of investors through this sector in collaboration with the private sector, donors and international and national organizations. Firstly starting with the government, it should arrange the banking system to provide salary to government officials in all the ministries or institutions. The second stage is the government and stakeholders should set up the national conceptual frameworks to disseminate and announce public information programs by TV, radio, newspapers, magazines to Cambodian people as the whole country needs to understand how they can gain benefits from using the banking system. Their sharing in this system seems likely to help their confidence and nationalism. In my opinion, Cambodian people love their nation very much. Even pessimistic Cambodians will enjoy to help their nation. Finally, the most important strategy is that the government and all political parties must commit seriously to maintain and strengthen security throughout the country. In any case, they must save and maintain the good reputation of the nation in international forums as “a safe country” without kidnappings, robberies, and thieves. These have an impact on investor and Cambodian confidence. Establishing an industrial bank deserves consideration.

7.3.4 Technology and Innovation Activities: Invention and adoption of new technologies and innovation processes may confer competitive advantages, but Cambodia’s garment manufacturing companies still use low technology and are perceived by respondents to lack spending on research and development (R & D) by 62.7% and 88% respectively. In particular, the regression result for the Model 4 strongly commends that it has a positive significant effect between technology and competitiveness of the garment industry in Cambodia at 5% levels of significance. Therefore, the Cambodian garment industry should enhance its technology. If firms will not develop this part, their products will remain low quality and not competitive. However, no matter at which stage of development a country is situated, sustained improvement in export performance depends on technology and innovation through technical/innovation aspects such as product engineering, quality management, linkages, and investment in human capital and information. Thus, policy makers promote technology diffusion and innovation. (1) National partnership involves complementary actions between the government and the private sector. (2) Cambodia still needs to provide more incentives that invite investors with advanced technology, and positive capital in order to produce much higher value–added textiles and garment items. (3) Upgraded foreign direct investment will necessarily contribute to promoting a technological shift toward the Cambodian textile and garment industries. (4) The best strategy is quite simple to improve the competitiveness of domestic firms and to create a business environment that will be more attractive to new investors. (5) Companies should be encouraged to compete based on unique strategy. A strong R&D base permits better and faster technology diffusion and facilitates greater and more efficient use of local resources, which enables the industrial sector greater flexibility and diversification. Also, personnel in charge of product development and design are very weak and inexperienced in using Western methods for product development like CAD/CAM or other more advanced technologies. These new technologies will be of future importance in helping Cambodia's garment firms.

7.3.5 Improving Specialized Market: The survey shows that specialized markets are perceived by the respondents to have 44% of tariffs in the US market and 41.3% in EU rules of origin, and 38% of "discriminatory effects of trading blocs." More importantly, they have a positive effect on the export growth rates of the garment sector in Cambodia at 10% and 5% levels of significance respectively. Therefore, this section should be improved. The Garment Manufacturers Association of Cambodia and the government of Cambodia should work closer to co–chair negotiations and lobbying to get preferential tariffs in the US, EU, Japan and Canada for Cambodian garments exports. This is of key importance to the success of the garment industry. The activities required in the short and medium term include:

1. Building on and supporting the garment industry–financed lobbying efforts in the US market to obtain GSP under duty–free market access similar to that gained by AGOA countries.

2. Campaigning for reform of the EU market access scheme:

1) Relaxing the rules of origin of the ASEAN requirements, in particular, including China as a qualified input supplier, and

2) Proposing to reduce the domestic content requirement for duty–free market access to the EU countries from existing levels of 40% to a lower level that could benefit higher value–added products from Cambodia.

7.3.6 Garment Firm's Product Structure: In the survey, 67.3% and 68% of the respondents perceived that garments are all made by woven cut and sew garments, and knit cut and sew garments respectively, but only 6.7% are produced as knitwear garments.

The garment firms' structure of productivity activities are imported fabrics, yarns, panels, or accessories from foreign countries such as Taiwan, South Korea, Hong Kong, China, Thailand or Vietnam. Therefore, The Cambodian garment industry's competitiveness could also be enhanced by backward–linkage investments in knit fabric processing, woven fabric dyeing and finishing, and other support activities and services. Cambodia will need to consider what incentives to offer foreign investors to attract upstream investment in textile mills and accessory manufacturers. Increasing the availability of locally produced fabrics and reducing the reliance on imported fabrics would result in lower production costs.

7.3.7 The Sustainable Development Strategy of the Garment Industry: The Cambodian garment industry is now undertaking simplistic tasks of cutting and sewing and securing its competitiveness in the production processes with unskilled labor and rudimentary technology in a global production network. However, securing this cannot guarantee the long–term sustainable development of the Cambodian textile and clothing industry. According to the survey, 90% of Cambodian garment firms' strategies have their parent companies or headquarter offices overseas and firms' strategy of distribution was implemented through headquarter offices abroad as perceived by 86.7% of the respondents. Only 19.3% perceived that they have 'buyers' ordering directly' from their buyers. Especially, 'headquarter offices overseas' and 'buyers' purchasing order directly' affect the growth rates of Cambodia's garment industry positively at 10% levels of significance. For this reason, Cambodian garment firms should continue to strengthen and enhance both strategies more effectively and efficiently. Moreover, it is a crucial strategy for garment firms. The marketing management system should be trained to fill the communication gap between buyers and suppliers. In addition, Cambodia's competitiveness can be increased by developing a successful supply chain strategy and share best business practices. A lack of collaboration and partnership in business development, between governments, private sectors, and stakeholders is a big risk for the national economy.

7.3.8 Government Policy: The government can play a positive role in industrial development by creating a sound macroeconomic and productive environment and provide incentives and disincentives based on performance to enhance entrepreneurs' competitiveness. The garment textile and clothing industry should be encouraged as fellow:

1. 'To enjoy special incentives given by host governments to foreign and domestic investment' as perceived 90%, accounting for high importance levels. That means Cambodia's garment firms still need more incentives from the Cambodian government. Therefore, Cambodia will need to consider carefully what incentives it can offer to foreign investors to attract upstream investment in textile mills and accessory manufacturers. Moreover, Cambodia should set up policies for encouraging and supporting new investment in raw materials and accessories manufactured domestically, which can meet the EU's rules of origin requirements of the Cambodian garment producers. In particular, the Cambodian government needs to discuss and analyze in detail about the benefits and costs of tax incentives. Tax incentives amongst Asian countries, including Cambodia, are not significantly effective. In addition, fat incentives are costly as they are a loss of government revenue.

2. More importantly, preferential market access is perceived as 78.7% by the respondents accounting for high importance levels. It is found to have positive significance between preferential market access and the growth rates of Cambodia's garment industry at 5% levels of significance. Thus, this sector should be supported by pro–active global negotiations. It is essential for the government and the GMAC to be co–chaired to negotiate and lobby the US and EU government for zero tariffs or at least lower tariffs in a duty–free market access scheme.

7.3.9 Chance: The survey shows that political stability in the host country was perceived by respondents as 96% and accounted for the most important level. However, Cambodia's political stability does not fully extinguish foreign investors' concerns about expropriation. Foreign investors are still concerned that opaque practices and the process of implementing the system can generate indirect costs for them and provide room for bureaucrats' arbitrariness. Most of all, legislation is required to protect the legal rights of foreign investors and establish ways for dispute settlement to strengthen the safety of foreign investment. Therefore, all political parties and the coalition government should declare together that there exists no possibility of expropriation of foreign investment.

REFERENCES

Aaby, N. E. & Slater, S. F. (1989). "Management Influences on Export Performance : A Review of the Empirical Literature 1978–88" **International Marketing Review**. 6: pp. 7–26.

ADB. (2003). **Project Completion Report on the Basic Skills Project. (Loan 1368–CAM[SF]) in Cambodia**. The Asian Development Bank (ADB), July.

Altenburg T., Hillebrand W. & Meyer–Stamer J. (1998). **Building Systemic Competitiveness: Concept and Case Studies From Mexico, Brazil, Paraguay, Korea and Thailand.** Berlin: German Development Institute (GDI). Reports and Working Papers 3.

Ayres, R. (1988). "Barriers and Breakthroughs: An Expanding Frontiers' Model of Technology Industry Life Cycle" **Technovation**. 7: pp. 87–115

Bargawi, O. (2005). "Cambodia's Garment Industry–Origins and Future Prospects" Economic and Statistics Analysis Unit, London**: ESAU Working Paper 13** Overseas Development Institute, October.

BFC. (2007). "Lifting Productivity the Key Challenge for Garment Industry" **Better Factories Cambodia (BFC) Quality Newsletter** No.7, February.

BFC. (2007). "Better Factories Cambodia–Moving beyond Monitoring?" **Quality Newsletter** No.8, July.

Brooke, J. (2004). **A Year of Worry for Cambodia's Garment Makers.** January.

Bryman, A. & Bell, E. (2003). **Business Research Methods.** U.K: Fist Published Oxford: University Press.

Business Issue Bulletin Cambodia No. 5. **The Garment Sector in Cambodia:** Post–MFA Available from URL: www.ifc.org/ifcext/mekongpsdf.nsf/AttachmentsByTitle/BIB-5-CAM ENG/$FILE /BIB-5-CAM-ENG.pdf.

Cham Prasidh. (2002). **"Towards Building Cambodia as a Sound and Safe Sourcing Place for World Textile and Apparel – Experiences of Cambodia in the linkage between trade and labor standards"** Jakarta: paper presented at the Asia Global Sourcing Exhibition and Conference, 14 February.

Chandler, A., & M. E. Porter, editor. (1986). **The evolution of Modern Global Competition: In Competition in Global Industries.** Boston: Harward Business School Press.

Cockburn, J., Siggel, E., Coulibaly, M., Vexina, S. (1998). **Manufacturing Competitiveness and the Structure of Incentives in Mali.**

Cooper, D. R. & Schindler, P. S. (2001). **Business Reasearch Methods.** 7th ed, McGraw–Hill International Edition.

Dickerson, K. (1995). **Textiles and Apparel in the Global Economy.** New Jersey: Prentice Hall.

Douglas, S. P. & Wind, Y. (1987). "The Myth of Globalization" **Columbia Journal of World Business** 22 (Winter): p. 1929.

EIC. (2005). Economic Institute of Cambodia–Cambodia. **Competitiveness:** Report–September.

EIC. (2006). **Cambodia Economic Watch.** Economic Institute of Cambodia. Phnom Penh, April.

EIC. (2007**). Cambodia's Garment Industry Post–ATC:** Human Development Impact Assessment by Economic Institute of Cambodia (EIC)–Export Diversification and Value Addition for Human Development. June.

Economics Today. (2008**).** "Garment Exports Power Economy; Overall Industrial Slipped" **Economics Today**, Cambodia's Business Magazine Cambodia Economic Watch: Special Issue. July.

FIAS. (2004). **Cambodia: Corporate Social Responsibility and the Apparel Sector–Buyer Survey Results.** Washington DC: Foreign Investment Advisory Service (FIAS).

FIAS. (2005). **Cambodia Corporate Social Responsibility in the Apparel Sector and Potential Implications for Other Industry Sectors.** Foreign Investment Advisory Service (FIAS) a Joint Service of the International Finance Corporation and The World Bank. April.

Field, A. (2005). **Discovering Statistics Using SPSS** . 2nd ed. London: Sage Publications Ltd.

Gauthier, B., Soloaga, I., & Tybout, J. (2000). **A Firm's–Eye View of Policy and Fiscal Reforms in Cameroon.**

GMAC. (2007). "The Garment Manufacturers Association in Cambodia (GMAC)" **Reach for The Future.** October.

Grossi, G. (1990). "Promoting Innovation in a Big Business" **Long Range Planning**. 23,1: pp. 41–52.

Hing, T. (2006). **The Cambodian Investment Challenges in Global Competitiveness:** Sihanoukville Autonomous Port Phnom Penh Kingdom of Cambodia, Japan International Cooperation Agency (JICA).

Hitt, M.A., Ireland, R.D., & Hoskisson, R.E. (2007). **Competitiveness and Globalization: Concepts Strategic Management.** 7th ed. USA: South–Western, Thomson.

Huck, S.W. (2008). **Reading Statistics and Research.** 5th ed. UK: Knoxville: University of Tennessee.

Hunter, A. (1990). **Quick Response in Apperal Manufacturing: A Survey of the American Scene.** UK: The Textile Institute: Manchester,.

Industry Canada. (1995). "Competitiveness: Concepts and Measures" **Occasional Paper** No.5, Ottawa.

IMF. (2004). "Cambodia: Statistical Appendix." Washington DC. **International Monetary Fund (IMF) Country Report** No. 04/330.

Jansson, H. (1994). Industrial Products. **A Guide to the International Marketing Economics Model.** New York: International Business Press.

Johansson, J. (2003). **Global Marketing**. . 3th ed. New York: McGraw–Hill.

Jones, R.M. (2002). **The Apparel Industry.** UK: Oxford: Blackwell Science.

KIEP & KOICA. (2006). **The Project for Capacity Building in Trade in Goods and Services for Cambodia.** Republic of Korea, Korea International Cooperation Agency (KOICA) and Korea Institute for International Economic Policy (KIEP), Final Report. May.

Konishi, Y. (2003). **Towards a Private Sector–Led Growth Strategy for Cambodia, Volume I: Value Chain Analysis.** Prepared for the World Bank. Reston, VA: Global Development Solutions, LLC, June.

Krajasri, W. (2005). "Identifying the Perceptions of Strategic Outsourcing of Logistics Service: A Study of Agricultural and Automotive Exporting Firms in Thailand" **Chulalonkorn Review**, p. 78.

Kramer, J.S. (1991). **The Logit Model for the Economists**. UK: London: Edward Arrnold Plublishers.

Kinnear, P.R. & Gray, C.D. (2006). **SPSS 14 Made Simple.** UK: Department of Psychology, University of Aberdeen, Psychology Press.

Krugman, P. (1994). "Competitiveness: A Dangerous Obsession" **Foreign Affairs**, 73, 2: pp. 28–44.

Lall, S. (2001). **Competitiveness, Technology and Skills.** (Cheltenham, Edward Elgar).

Lincoln, Y.S. & Guba, E. (1985). **Naturalistic Inquiry.** Beverly Hills: Sage.

Maddala, S. (1983). **Limited Dependent and Qualitative Variables in Econometrics.** New York: Cambridge University Press.

Malerba, F., Orsenigo, L., & Peretto, P. (1997). "Persistence of Innovative Activities, Sectoral Patterns of Innovation and International Logical Specialization" **International Journal of Industrial Organization**. 15: pp. 801–826.

Martin, R. (1999). **A Prescription for Canadian Competitiveness.** Rotman Management Spring/Summer.

Mason, C.H. & Perreault, W.D. (1991). "Collinearity, power and interpretation of multiple regression analysis" **Journal of Marketing Research 28**. 3: pp. 268–280.

Mason, R.D., Lind, D.A. & Marchal, W.G. (1999). **Statistical Techniques in Business and Economics.**

McRee, A.N. (2002). **An Analysis of Sub–Saharan Africa's Textile and Apparel Industries.** (Under the direction of Dr. Nancy L. Cassill).

Mechling, G.W., Pearce, J.W., & Busbin, J.W. (1995). "Exploiting Amt in Small Manufacturing Firms for Global Competitiveness" **International Journal of Operations and Production Management**. 15: pp. 61–76.

Mekong Time Newspaper. (2008). **Cambodia/Economy: Growth Seen Dropping to 7% in 9 June.**

Meyer–Stamer, J. (1998). **Clustering, Systemic Competitiveness and Commodity Chains:** Shaping Competitive Advantage at the Local Level in Santa Catarina/Brazil.

MOC & ADB. (2004). **Cambodia's Garment Industry: Meeting the Challenges of the Post–Quota Environment.** TA Report for the Asian Development Bank (ADB). TA No. 4131–Cam. Preventing Poverty & Empowering Female Garment Workers Affected by the Changing International Trade. October.

MOC. (2008). **Report on the Ministry of Commerce (MOC) Achievements in Implementation of the Government Rectangular Strategy2004–08 and the Objectives in the Future.** 6 May.

Mutsune, T. (2008). **The State of U.S. International Competitiveness: A Study of the Impact of Trade Performance Indicators.** Advances in Competitiveness Research, Annual. Available from URL: http://www.entrepreneur.com/tradejournals/article/191014860.html

Myers, B. & Shaw, L. (2004). **The Social Sciences: Access to He.**

National Institute of Statistics. (2006). **National Accounts of Cambodia 1993–2005.** June.

Nelson, R.R. (1992). "National Innovation Systems: A Retrospective on a Study" **Industrial and Corporate Change**. 1, 2: pp. 347–74.

Nordås, H.K. (2004). "The Global Textile and Clothing Industry post the Agreement on Textiles and Clothing." World Trade Organization, Geneva, Switzerland. **Discussion Paper**. 5.

OECD. (1992). **The Technology and the Economy:** The Key Relationships, Organization for Economic Co–operation and Development (OECD), Paris.

OECD. (1994). **Industrial Structure Statistics**. 1994 Edition. Paris: OECD 1996.

OECD. (1996). **Globalization and Competitiveness:** Relevant Indicators. Paris: STI Working Papers No. 16.

OECD. (2004). "A New World Map in Textiles and Clothing Adjusting to Change" **Policy Brief**. October.

Padmore, T. & Gibson, H. (1998). "Modeling Systems of Innovation II: A framework for Industrial Cluster Analysis in Regions" **Research Policy.** 22: 625–632.

Padmore, T. & Gibson, H. (1998). "Modeling Systems of Innovation: A Framework for Industry Cluster Analysis in Regions" **Research Policy**. 26, pp. 625–641.

Pearce, J.A. & Robinson, R.B. (2000). **Strategic Management: Formulation, mplementation, and Control.** 7th ed. UK: McGraw-Hill.

Pearce, J.A. & Robinson, R.B. (2005). **Formulation, Implementation, and Control of Competitive Strategy.** 9th ed. McGraw-Hill International Edition.

Pitts, E. & Lagnevik, M. (1998). What Determines Food Industry Competitiveness? In Traill, W.B. and Pitts, E. (eds). **Competitiveness in the Food Industry.** London: Blackie Academic & professional.

Pitts, R.A.& Lei, D. (2006). **Strategic Management, Building and Sustaining Competitive Advantage.** 4th ed.

Polaski, S. (2006). Harnessing Global Forces to Create Decent Work: **A Successful Experiment in the Cambodian Apparel Sector.** Carnegie Endowment for International Peace. November.

Porter, M.E. (1985). **Competitive Advantage: Creating & Sustaining Superior Performance**. New York: The Free Press.

Porter, M.E. (1990). **The Competitive Advantage of Nation:** New York: Free Press

Porter, M.E. (1996). **"What is Strategy" Harvard Business Review**. Nov/Dec.

Porter, M.E. (1998). **Clusters and Competition: New Agendas for Companies, Government, & Institutions on Competition.** Boston, (MA): Harvard Business School Press.

Porter, M.E. (1998). **The Competitive Advantage of Nation:** With a new introduction (First Free Press Edition 1990 Introduction Copyright © 1998 by Michael E. Porter.

Press Release. **Garment Industry Productivity Center to Boost Competitiveness**. Available from URL: From http://cambodia.usembassy.gov/pr_040706.html#top

Reid, S.D. (1986). **Is Technology Linked with Export Performance in Small Firms?** In The Art and Science of Innovation Management, Hubner (ed.), Amsterdam: Elsevier Science Publishers, pp. 273–83.

Saunders, M., Lewis, P. & Thornhill, A. (2003). **Research Methods for Business Students.** 3rd ed. UK: Harlow: FT/Prentice Hall

Saviotti, P.P. (1995). "Technology Mapping and the Evaluation of Technical Change" **International Journal of Technology Management**. 10: pp. 407–424.

Singleton, J. (1997). **World Textile Industry.** London: Routledge.

Sok S. (2001). **Globalization and Cambodia: History & Perceptible Trends**. Paper presented at the Globalization Conference: Business & Law Perspectives, P.P: 27–28 June.

Spinanger, D. (1999). “Textiles Beyond the MFA Phase–Out” **World Economy.** 22, 4: pp. 455–476.

Stock, J.H. & Watso, M.W. (2007). **Introduction To Econometrics.** 2nd ed. Pearson International Edition.

Stuart–Smith, K., Dayal, R., Brimble, P., & Holl, S. (2004). **Phase1 Report: Cambodia’s Garment Industry–Meeting the Challenges of the Post–Quota Environment**. Phnom Penh: Asian Development Bank and Kingdom of Cambodia, MOC. September.

Swann, P. & Taghavi, M. (1992). **Measuring Price and Quality Competitiveness.** Avebury. Chap.1–3.

Teece, David J. (1996). “Firm Organization, Industrial Structure, and Technological Innovation” **Journal of Economic Behavior & Organization**. 31: pp.193–224.

Ticehurst, G.W. & Veal, A. J. (2000). **Business Research Methods: a management approach.** Longman.

Tybout, J., Gauthier, B., Navaretti, G., & Melo, J.D. (1996). **“Firm–Level Responses to the CFA Devaluation in Cameroon”.**

UN, ICC & WBO. (2004). **An Investment Guide to Cambodia Opportunities and Conditions.** United Nations (UN), International Chamber of Commerce (ICC), and The World Business Organization (WBO). August.

USAID. (2005). **Measuring Competitiveness and Labor Productivity in Cambodia’s Garment Industry.** The United States Agency for International Development (USAID) June.

USAID. (2006). **Cambodia Garment Industry Workforce Assessment: Identifying Skill Needs and Sources of Supply.** This publication was produced by Nathan Associates Inc. For the United States Agency for International Development (USAID). June.

U.S. Department of Commerce. (2007). “Competitiveness in the Americas: Promoting Prosperity and Economic Opportunity” **Americas Competitiveness Forum**, Atlanta, Georgia 10–13 June.

Van, D.V. & Andrew, H. (1986). “Central Problem in the Management of Innovation” **Management Science**. 42, 5(May): pp.590–607.

Van, D.V. & Andrew, H. (1993). “A Community Perspective on the Emergence Innovation” **Journal of Engineering and Technology Management**. 10: pp.23–51.

Wang, L., Wang, P., & Wang, R. (2005). **Analysis of the Competitiveness of the Ningbo Garment Industry.** The Department of Business Studies FEC 685 Master Dissertation International Business Program, Sweden: Kristianstad University College, June.

Wheelen, T.L. & Hunger, J.D. (2006). **Strategic Management and Business Policy.** 10th ed. Pearson International Edition. pp.3.

World Bank. (2003). **Towards a Private Sector–led Growth Strategy for Cambodia–Volume 1, Value Chain Analysis.** Washington, DC: The World Bank Group (WB). June

World Bank. (2004). **Cambodia Seizing the Global Opportunity: Investment Climate Assessment and Reform Strategy.** Prepared for the Royal Cambodian Government by The World Bank Group. Washington, DC. 20433, August.

World Bank. (2007). “**Ten Years after the Crisis, East Asia is Going Strong:** Cambodia” **Newsletter** Volume 5, Number 5. May

World Trade Organization. (2004). Minister of Commerce, H.E Cham Prasidh Cham Prasidh. **“After Joining the WTO, the garment industry will not move anywhere, but will stay in Cambodia.”** Debate in the National Assembly, 31 August.

Wysokinska, Z. (2003). **Competitiveness and Its Relationships with Productivity and Sustainable Development**. Technical University of Lodz, Department of World Economy and Marketing of Textiles, Poland. Fibres & Textiles in Eastern Europe July/September. 11, 3(42): pp.11–13.

Yamane, T. (1973). **Statistics: an introductory analysis.** 3rd ed. New York: Harper and Row Publishers.

Yin, R.K. (1984). **Case Study Research Design and Methods.** CA. Sage: Beverly Hills.

Zeltser, L. (2008). **SWOT Matrix for Describing Security Posture: Version: 1**. 29 August 16:49:00 UTC. Available from http://isc.sans.org/diary.html?storyid=4939

Zigmund, W.G. (2000). **Business Research Methods.** 6th ed. OHIO: South–Western.

APPENDIX

ANALAYSIS OF THE COMPETITIVENESS OF THE GARMENT INDUSTRY IN CAMBODIA BY MR. POTRY CHHEAN

APPENDIX A

QUESTIONAIRES

Questionnaires Prepared by Mr. Potry Chhean, MBA Student, School of Management, Mae Fah Luang University, Chiang Rai, Thailand.

Telephone No. (+855) 12 85 79 25 or (+66) 848 086 101

Email: moc_chhpotry@yahoo.com or 88potry@Gmail.com

The purpose of this survey is to find out the better understanding of the current situation of the Cambodian garment producing firms for improving the competitiveness of the garment firms in Cambodia and to seek for effective strategies to strengthen and upgrade Cambodian garment industry to reach higher benefits in the competitive edge from the main global markets. The information acquired from this survey will be used for the thesis by Mr. Potry Chhean, a graduate MBA Student, School of Management for International Program, Mae Fah Luang University, Thailand. Individual company details will be treated as strictly confidential and only aggregate figures will be published.

Survey of Analysis of the Competitiveness of the Cambodian Garment Industry

Instruction: Please make a checkmark ☑ in the relevant box or fill number in the blank provided in each question. Leave blank to questions not applicable to your company.

I. General information

Name of the Company...

Address of Company: ....

…………………………………………………………………………………………………

1. History of the Company

1. Year of establishment of the company in Cambodia……………………………………...
2. Company Characteristics

2.1 Which country is own–invested in your company operating?

☐ Cambodia ☐ Canada ☐ China ☐ Bangladesh

☐ England ☐ India ☐ Indonesia ☐ Malaysia

☐ Singapore ☐ Taiwan ☐ the United States ☐ South Korea

☐ Others …………………………………………………………………………………….

2.2 If your company has been operating by Cambodian owned 100%, Foreign owned 100% or Joint–Venture.

- Cambodia about ……………% and …………………………… …..about…..…….…%

- …………………….. about…..………..% and……………………...about ...…………%

2. Management

Who is the real most influential decision-maker on business of your company?

Nationality …………………………Age …………. (in Years); Academic Qualification

Previous Occupation ……………………….; Code: 1. ☐ the same company in lifetime

2. ☐ Employee in other textile firm, 3. ☐ Government officer,

4. ☐ Others (please specify)……………………………………………………..

3. Production

3.1 Which production process has your company been producing or making? Pease make a checkmark ☑ the number of the applicable item(s) as the below:

1. ☐ Knit Garment 2. ☐ Woven Garment 3. ☐ Knitwears **4**. ☐ Dyeing

5. ☐ Other (please specify)……………………………………………….)

3.2 Does your company have any research and development department? What is for?

☐ Yes, since………………expense is …………………% of total sale volume

For……………………………………………………………………………….

☐ No, but have a plan to set up

for …………………………………………………………… ☐ No, we have not

3.3 What kinds of brand name products that your company produces to export?

☐ Adidas; ☐ Nike; ☐ the Gap; ☐ Reebok; ☐ Abercrombie & Fitch;

☐ Marks & Spencer; ☐ H&M; ☐ Wal-Mart; ☐ Columbia; ☐ Perry Ellis;

☐ Liz Claiborne; ☐ Others (please specify) ……………………………………….

3.4 Have you planned to increase employees in your company in the future?

☐ Yes ☐ No If yes, about ……………. percent of your existing employees

3.5 Have you planned to reduce employees in your company in the future?

☐ Yes ☐ No If yes, about……………….. percent of your existing employees

Measuring the competitiveness of Cambodian garment industry

II. Factor Conditions

2.1 Labor force

1. How do you Measure competitiveness index of Cambodian garment industry?

Please indicate degree of your agreement

5 = Excellent; 4 = Good; 3= Average; 2 = Less than average; and 1 = Weak or Poor

	1	2	3	4	5
Labor force availability	☐	☐	☐	☐	☐
Cheap and abundant workers	☐	☐	☐	☐	☐
Unskilled labor force	☐	☐	☐	☐	☐
Medium skilled labor force	☐	☐	☐	☐	☐
High skilled labor force	☐	☐	☐	☐	☐
Others (please specify)..	☐	☐	☐	☐	☐

2. How to improve them relating to question one above?

……………………………………………………………………………………………

……………………………………………………………………………………………

2.2 Technology

1. How do you measure competitiveness index of Cambodian garment industry?

Please indicate degree of your agreement

5= Excellent; 4 = Good; 3= Average; 2 = Less than average; and 1 = Weak or Poor

	1	2	3	4	5
Very Low technology	☐	☐	☐	☐	☐
Low technology	☐	☐	☐	☐	☐
Medium technology	☐	☐	☐	☐	☐
High technology	☐	☐	☐	☐	☐
Very high technology	☐	☐	☐	☐	☐

2. How to improve competitiveness of Cambodian Garment Industry in the technology?

<u>Please indicate degree of your agreement</u>

5= Excellent; 4 = Good; 3= Average; 2 = Less than average; and 1 = Weak or Poor

	1	2	3	4	5
Innovation (making changes in something already existing, as by introducing new methods, ideas, or products)	☐	☐	☐	☐	☐
Poor quality of business schools	☐	☐	☐	☐	☐
Quality of Cambodian human resources	☐	☐	☐	☐	☐
Math and science education	☐	☐	☐	☐	☐
Quality of scientific research institutions	☐	☐	☐	☐	☐
Weakness of technological infrastructure	☐	☐	☐	☐	☐

2.3 Skill of Workers

What is the average educational level? (please write number on the space)

1. Primary, 2. Lower secondary, 3. Higher secondary, or 4. Bachelor or higher

Supervisor (……) Quality controller (……) Operator (…….) Helper (……..)

2.4 The Evaluation of importance of factors determining the competitiveness of the Cambodian garment industry

1. Please think of each sub-factor carefully and compare with each other that belong to a certain factor category, and then give each sub–factor a score (1-5). Please pay attention to all sub-factors are related to the whole Cambodian garment industry (as a cluster), not to a certain enterprise.

5= Excellent; 4= Good; 3= Average; 2= Less than average; and 1= Weak or Poor

Marketing and Logistics

1. Market orientation ( )
2. On time delivery ( )
3. Fast repeat orders ( )
4. Local yarn supplies ( )
5. Local fabric supplies ( )
6. Local accessories ( )

Manufacturing

1. Productivity ( )
2. Quality ( )
3. Production flexibility ( )
4. Small runs ( )
5. Technology CAD/CAM ( )
6. Computerized plan/ control ( )
7. Compliance ( )

Labor Skills and Training:

1. Availability ( )
2. Education level ( )
3. Skills ( )
4. Training facilities in-house ( )
5. Vocational training schools ( )
6. Productivity ( )
7. Absenteeism ( )
8. Work ethics ( )
9. Diligence/dexterity ( )
(careful and persistent work or effort)
10. Compliance ( )

Fibres

1. Cotton ( )
2. Wool ( )
3. Silk ( )
4. Polyester - staple ( )
5. Polyester – filament ( )
6. Polyester – micro ( )
7. Acrylic ( )
8. Nylon (polyamide) ( )
9. Bast ( )

Infrastructure

1. Roads ( )
2. Railways ( )
3. Airports ( )
4. Harbors/Ports ( )
5. Container terminals ( )
6. Telecom ( )
7. Customs clearance systems ( )
8. Power- shortage ( )
9. Power supply breakdowns ( )
10. Power cost ( )

2. Do you have automatic machine?

a. CAD (computer-aided design) ☐ Yes ☐ No

b. CAM (computer-aided manufacturing) ☐ Yes ☐ No

c. Made by hands ☐ Yes ☐ No

d. Others ☐ Yes ☐ No

3. Do you have available raw materials in the domestic?

☐ Yes ☐ No

4. If labor force, is easy or available for you?

<u>Please indicate degree of your agreement</u>

5 = ☐ Excellent; 4 = ☐ Good; 3 = ☐ Average; 2 = ☐ Less than average; 1 = ☐ Weak/Poor

5. If Cambodian labor standard is required?

<u>Please indicate degree of your agreement</u>

5 = ☐ Excellent; 4 = ☐ Good; 3 = ☐ Average; 2 = ☐ Less than average; 1 = ☐ Weak/Poor

6. If Cambodian workers meet labor standard?

<u>Please indicate degree of your agreement</u>

5 = ☐ Excellent; 4 = ☐ Good; 3 = ☐ Average; 2 = ☐ Less than average; 1 = ☐ Weak/Poor

7. If Cambodian workers is low or cheap?

<u>Please indicate degree of your agreement</u>

5 = ☐ Excellent; 4 = ☐ Good; 3 = ☐ Average; 2 = ☐ Less than average; 1 = ☐ Weak/Poor

8. If the cost of raw materials is low or cheap?

<u>Please indicate degree of your agreement</u>

5 = ☐ Excellent; 4 = ☐ Good; 3 = ☐ Average; 2 = ☐ Less than average; 1 = ☐ Weak/Poor

III. Infrastructure Availability

5 = Excellent; 4 = Good; 3= Average; 2 = Less than average; and 1 = Weak or Poor

	1	2	3	4	5
1. Roads	☐	☐	☐	☐	☐
2. Railways	☐	☐	☐	☐	☐
3. Airports	☐	☐	☐	☐	☐
4. Harbors/Ports	☐	☐	☐	☐	☐
5. Container terminals	☐	☐	☐	☐	☐
6. Telecom	☐	☐	☐	☐	☐
7. Customs clearance systems	☐	☐	☐	☐	☐
8. Power- shortage	☐	☐	☐	☐	☐
9. Power supply breakdowns	☐	☐	☐	☐	☐
10. Power cost	☐	☐	☐	☐	☐

IV. Market Access

4.1 Did your export volume increase or decrease after January 2005 (after the expiry of quotas)?

	Decreasing by > 10%	**Decreasing by 0-10%**	**Same**	**Increasing by 0-10%**	**Increasing by > 10%**
US market					
EU market					
Non-EU market					
Canada market					
Japan market					
Other market					

V. Marketing Strategy

5.1 Distribution

1. Can your firm's ability of production complete with other countries such as China, Vietnam, Bangladesh...etc?

☐ Yes ☐ No

2. How do you distribute your products to the markets?

Please express:

a. ☐ Buyers' purchasing order directly, **b.** ☐ Channel parent company at abroad,

c. ☐ Finding for the potential buyers by yourself **d.** ☐ others…………………………

3. When have you exported your products what factors have impact on your company?

Please indicate degree of your agreement

5= Excellent; 4 = Good; 3= Average; 2 = Less than average; and 1 = Weak or Poor

	1	2	3	4	5
1. Corruption (Red–tap, Bribe)	☐	☐	☐	☐	☐
2. Long procedure	☐	☐	☐	☐	☐
3. Unofficial payment	☐	☐	☐	☐	☐
4. Union strikes	☐	☐	☐	☐	☐

4. How to improve them relating to question 4 above?

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

VI. Value Chain Situation

1. What has your firm done in order to keep or increase production in the competitive market?

Please make ranking scale of items as the below:

5 = Excellent; 4 = Good; 3 = Average; 2 = Less than average; and 1 = Weak or Poor

	1	2	3	4	5
a. Delivery reliability	☐	☐	☐	☐	☐
b. Active marketing	☐	☐	☐	☐	☐
c. Active Selling	☐	☐	☐	☐	☐
d. Perceived market image	☐	☐	☐	☐	☐
e. Own product styling	☐	☐	☐	☐	☐
f. **O**thers (please specify):	☐	☐	☐	☐	☐

VII. Factors Effecting Competitiveness

7.1 Please indicate the main factors effective competitiveness in the garment industry in Cambodia from the ranking scale **1 to 5** to each one of them as the following:

5 = Excellent; 4 = Good; 3 = Average; 2 = Less than average; and 1 = Weak or Poor

1. To avoid tariff barriers and/or important restrictions in host countries ( )
2. To gain benefit from lower labor costs ( )
3. To get better access to raw material sources ( )
4. To enjoy special incentives given by host government to foreign and domestic investment ( )
5. Government incentive ( )

6. Preferential market access ( )

7.2 How to improve the competitiveness

Please indicate ranking scale **1 to 5**

1. Political stability in the host country ( )
2. Steady growth of the national income ( )
3. Favorable balance of payments conditions and stable external value of the national currency ( )
4. Generally good labor relations ( )
5. Price stability ( )
6. Well specified government policy on foreign investment ( )
7. Availability of low-cost labor ( )
8. Adequacy of infrastructural facilities ( )
9. Availability of specific types of raw materials ( )
10. Availability of skilled workers ( )
11. Availability of local financial capital ( )
12. Favorable attitude of the local public toward foreign investment ( )
13. Investment incentives provided by the host government ( )
    13.1 Income tax exemption ( )
    13.2 Tariff protection ( )
    13.3 Exemption or reduction of duties on imported materials ( )
    13.4 Favorable conditions for foreign exchange remittances ( )
14. Expanding domestic market ( )

VIII. Regulatory Environment

Please indicate external factors affecting competitiveness of the garment firms in Cambodia ranking scales 1-5 as the below:

5 = Excellent; 4 = Good; 3 = Average; 2 = Less than average; and 1 = Weak or Poor

1. Tariffs in the US Market ( )

2. Tariffs in the EU Market ( )

3. Discriminatory effects of trading blocks ( )

4. Negative Social Campaign with Regard to Compliance Issues ( )

Please recommend and suggest improving for the garment sector in order to gain the competitive edge in the global niche market (especially on export and backward linkage)

1. Government: ……………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

2. Entrepreneur in supporting industry…………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

3. Others (please specify) ……………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

Thank you very much for your assistance and cooperation

APPENDIX B

LIST OF CAMBODIA'S GARMENT INDUSTRIES

OF THE GARMENT MANUFACTURERS ASSOCIATION IN CAMBODIA

NO.	NAME OF THE COMPANY	ADREESS	COUNTRIES' INVESTORS
1.	8 STAR SPORTWER., LTD.	PHNOM PENH	SINGAPORE
2.	ACE APPAREL CO., LTD.	PHNOM PENH	KOREA
3.	ALL SUPER ENTERPRISE (CAMBODIA) LTD.	PHNOM PENH	TAIWAN
4.	APPEREL PLACE PTE LTD.	PHNOM PENH	SINGAPORE & TAIWAN
5.	ARCHID GARMENT FACTORY CAMBODIA LTD.	PHNOM PENH	HONG KONG
6.	ASD (CAMBODIA)CO., LTD.	PHNOM PENH	KOREA
7.	BERRY APPAREL (CAMBODIA) CO., LTD.	PHNOM PENH	MALAYSIA
8.	BEST TAN GARMENT LTD.	PHNOM PENH	CAMBODIA
9.	BORIC GARMENT (CAMBODIA) CO., LTD.	KANDAL	HONG KONG
10.	BRIGHT SKY PTE LTD.	PHNOM PENH	SINGAPORE
11.	BROADLAND CAMBODIA GARMENT INDUSTRIES CO., LTD.	PHNOM PENH	MALAYSIA
12.	CAMODIA APPAREL INDUSTRY LTD.	KOMPONG SPEU	CAMBODIA
13.	CAMBODIA SENBAO GARMENT MFG CO., LTD.	PHNOM PENH	TAIWAN
14.	CAMBODIA SPORTWEAR MFG LTD.	PHNOM PENH	HONG KONG
15.	CAMBODIAN HOI FU GARMENT & KNITTING FACTORY COMPANY LTD.	PHNOM PENH	MACAU

16	CAMBO FASHION CO., LTD.	PHNOM PENH	KOREA
17.	CAMBO HANDSOME	PHNOM PENH	KOREA
18.	CAMBO HANSOLL CO., LTD.	PHNOM PENH	KOREA
19.	CAMITEX (CAMBODIA) MFG CO., LTD.	PHNOM PENH	TAIWAN
20.	CHENTEX GARMENT CO., LTD.	PHNOM PENH	TAIWAN
21.	CHEAN PING GARMENT CO., LTD.	PHNOM PENH	TAIWAN
22.	CHU HSING GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
23.	CHUNG FAI KNITWEAR FTY LTD.	PHNOM PENH	HONG KONG
24.	CITY NEW GARMENT FACTORY (CAMBODIA) CO. LTD	PHNOM PENH	HONG KONG
25.	CMCW (CAMBODIA) CO., LTD.	PHNOM PENH	KOREA
26.	CUNG SING (CAMBODIA) GARMENT FACTORY LTD.	PHNOM PENH	HONG KONG
27.	DA JOO CAMBODIA LTD.	PHNOM PENH	KOREA
28.	DAI YOUNG CAMBODIA CO., LTD.	PHNOM PENH	KOREA
29.	DOUBLE WIN INTERNATIONAL CORP.	PHNOM PENH	TAIWAN & USA
30.	E GARMENT CO., LTD.	KANDAL	CHINA
31.	EAYUAN (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	CHINA
32.	EDA ENTERPRISE CO., LTD.	PHNOM PENH	TAIWAN
33.	ECENT CAMBODIA KNITTING CO., LTD.	KANDAL	CHINA

34.	ECLAT HIGHTER INTERNATIONAL GARMENT (CAMBODIA).	PHNOM PENH	TAIWAN
35.	E-FONG ENTERPRISE CO., LTD.	PHNOM PENH	CAMBODIA
36.	EMPEROR GARMENT INDUSTRY CO., LTD.	KANDAL	TAIWAN
37.	ETERNAL WAY (CAMBODIA) LIMITED.	PHNOM PENH	HONG KONG & CAMBODIA
38.	EVERGREEN APPAREL (CAMBODIA) CO., LTD.	PHNOM PENH	CAMBODIA
39.	EVERGREEN GARMENT LIMITED.	PHNOM PENH	KOREA
40.	F.Y CAMBODIA FASHION LIMITED.	PHNOM PENH	SINGAPORE
41.	FINE GIS CAMBODIA GARMENT CO., LTD.	PHNOM PENH	KOREA
42.	FLYING DRAGON (CAMBODIA) GARMENT LTD.	PHNOM PENH	HONG KONG
43.	FORTUNE FASHIONS LIMITED.	PHNOM PENH	CAMBODIA
44.	FORTUNE GARMENT & WOOLEN KNITTING FACTORY LTD.	KANDAL	CHINA
45.	FRANCO KNITTING GARMENT FACTORY LTD.	KANDAL	MACAU & CHINA
46.	GENNON (CAMBODIA) GARMENT MANUFACTURING	PHNOM PENH	HONG KONG
47.	GENUINE GARMENT (CAMBODIA) CO., LTD.	KANDAL	TAIWAN
48.	GHIM LI (CAMBODIA) PTE, LTD.	KANDAL	SINGAPORE
49.	GLADPEER GARMENTS FACTORY (CAMBODIA) LTD.	PHNOM PENH	HONG KONG
50.	GLOBAL APPARELS LIMITED.	KANDAL	MALAYSIA
51.	GOLD KAMVIMEX GARMENT FACTORY LTD.	PHNOM PENH	CHINA

52.	GOLDEN JET (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	CHINA & HONG KONG
53.	GOLDFAME ENTERPRISES (INT'L) KNITTERS LIMITED.	KANDAL	HONG KONG
54.	GOLDTEX (CAMBODIA) GARMENT MANUFACTURING LTD.	PHNOM PENH	HONG KONG
55.	GRACE SUN CAMBODIA GARMENT CO., LTD.	PHNOM PENH	HONG KONG
56.	GRANDTEX INTERNATIONAL CO., LTD.	PHNOM PENH	MALAYSIA & TAIWAN
57.	GREAT LANCELOT INTERNATIONAL CO., LTD.	PHNOM PENH	HONG KONG
58.	GREAT UNION (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	HONG KONG
59.	G.W ENTERPRISE LIMITED.	PHNOM PENH	TAIWAN & CHINA
60.	HAN SUNG (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	KOREA
61.	HEART ENTERPRISE (CAMBODIA) CO., LTD.	KANDAL	TAIWAN
62.	HECHTER (CAMBODIA) GARMENT LTD.	KANDAL	BRITISH
63.	HIGH BORN ENTERPRISE CO., LTD.	PHNOM PENH	TAIWAN
64.	HONG MING TA GARMENT CO., LTD.	PHNOM PENH	CHINA
65.	HONTEX CO., LTD.	PHNOM PENH	CHINA
66.	HORUS INDUSTRIAL CORP.	PHNOM PENH	TAIWAN & CAMBODIA
67.	HOYEAR (CAMBODIA) GARMENT LTD.	PHNOM PENH	HONG KONG
68.	HUGO INTERNATIONAL INVESTMENT CO., LTD.	PHNOM PENH	HONG KONG
69.	HUIYING ENTERPRISES (CAMBODIA) CO., LTD.	PHNOM PENH	CHINA

70.	HUNG WAH (CAMBODIA) GARMENT MFG LTD.	PHNOM PENH	HONG KONG
71.	HWEE HONG (CAMBODIA) GARMENT INDUSTRIES CO., LTD.	PHNOM PENH	MALAYSIA & CAMBODIA
72.	HYTEX GARMENTS (CAMBODIA) CO., LTD.	PHNOM PENH	MALAYSIA
73.	IN FONG (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	CHINA, TAIWAN & HONG KONG
74.	IN JAE GARMENT CO., LTD.	PHNOM PENH	KOREA
75.	INFM GARMENT CO., LTD.	PHNOM PENH	TAIWAN
76.	JRB ACTION TEXTILE & CLOTHING LTD.	PHNOM PENH	TAIWAN
77.	JUNE TEXTILE CO., LTD.	PHNOM PENH	MALAYSIA
78.	KENNETEX INTERNATIONAL (CAMBODIA) CO., LTD.	PHNOM PENH	CHINA & HONG KONG
79.	KING FIRST INDUSTRIAL CO., LTD.	PHNOM PENH	TAIWAN
80.	KING SLAND GARMENT CAMBODIA LTD.	PHNOM PENH	HONG KONG
81.	KOG VENG GARMENT CO., LTD.	PHNOM PENH	CHINA, CANADA & BRITISH
82.	LA (CAMBODIA) GARMENT PET, LTD.	PHNOM PENH	MALAYSIA
83.	M & V INTERNATIONAL MANUFACTURING LTD.	PHNOM PENH	MACAO
84.	MAKALOT GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
85.	MAUREA GARMENTS CORP.	PHNOM PENH	TAIWAN

86.	MAXLIN (CAMBODIA) CO., LTD.	KANDAL	HONG KONG
87.	MENG TONG GARMENT MANUFACTORY LTD.	KANDAL	HONG KONG
88.	MIN YUE AUSTRLIA (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	CHINA
89.	MING HOI (CAMBODIA) GARMENT MFG LTD.	PHNOM PENH	HONG KONG
90.	MSI GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	HONG KONG
91.	NAN KUANG GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
92.	NEW ISLAND CLOTHING (CAMBODIA) LTD.	PHNOM PENH	BRITISH
93.	NEW MAX GARMENT CO., LTD.	PHNOM PENH	TAIWAN
94.	NEW ORIENT (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	CHINA
95.	NEW POIT WORLD TRADE (CAMBODIA) LTD.	PHNOM PENH	HONG KONG
96.	NEW WIDE (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	TAIWAN
97.	NOBLE APPAREL LTD.	PHNOM PENH	SINGAPORE
98.	NUGGET TEXTILE (PTE) LTD.	PHNOM PENH	TAIWAN
99.	OCEAN GARMENT CO., LTD.	PHNOM PENH	BANGLADESH
100.	OCEANIC GARMENT CAMBODIA CO., LTD.	PHNOM PENH	HONG KONG
101.	PCCS GARMENT LIMITED.	PHNOM PENH	MALAYSIA
102.	PINE GREAT (CAMBODIA) GARMENTS CO., LTD.	PHNOM PENH	CHINA
103.	PLANET TEXTILE (CAMBODIA) CO., LTD.	PHNOM PENH	CAMBODIA

104.	POTAMON CAMBODIA LTD.	PHNOM PENH	HONG KONG
105.	QUALITY TEXTILES CO., LTD.	PHNOM PENH	MALAYSIA
106.	RELIABLE SOURCE INDUSTRIAL (CAMBODIA) CO., LTD.	PHNOM PENH	CHINA
107.	RONTEX APPAREL (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
108.	ROO HSING GARMENT CO., LTD.	PHNOM PENH	TAIWAN
109.	S.H INTERNATIONAL CO., LTD.	KANDAL	KOREA
110.	SABRINA (CAMBODIA) GARMENT MANUFACTURING	KOMPONG SPEU	TAIWAN
111.	SAN LEI FUNG GARMENT & WOOLEN KNITTING FACTORY LTD.	PHNOM PENH	MACAU
112.	SANGWOO (CAMBODIA) CO., LTD.	KOMPONG SPEU	KOREA
113.	SAN SAN GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	INDONESIA
114.	SHARP CASUAL CO., LTD.	KOMPONG SPEU	TAIWAN
115.	SHEN ZHOU (CAMBODIA) CO., LTD.	PHNOM PENH	CHINA
116.	SIN LAN HO GARMENT CO., LTD.	PHNOM PENH	TAIWAN
117.	SPLENDID CHANCE INTERNATIONAL LTD.	PHNOM PENH	CAMBODIA & CHINA
118.	SPORTEX INDUSTRY CO., LTD.	PHNOM PENH	TAIWAN
119.	SU TONG FANG GROUP YINH KAN (CAM.) GARMENT	PHNOM PENH	CAMBODIA & CHINA
120.	SIU QUINH GARMENT (MFG) LTD.	PHNOM PENH	HONG KONG & MACAU
121.	SUIT WAY & LA RISSACA-FASHION FACTORY LTD.	PHNOM PENH	CANADA

122.	SUN SHINE CO., LTD.	KANDAL	TAIWAN
123.	SUN SKY (CAMBODIA) INDUSTRIES CO., LTD	PHNOM PENH	TAIWAN
124.	SUNTEX PTE, LTD.	PHNOM PENH	SINGAPORE
125.	SUPREME CHOICE (CAMBODIA) GARMENT LIMITED.	PHNOM PENH	HONG KONG
126.	TACK FAT GARMENT (CAMBODIA) LTD.	PHNOM PENH	HONG KONG
127.	TACTICIAN INTERNATIONAL CO., LTD.	PHNOM PENH	TAIWAN
128.	TAI YUNG ENTERPRISES CO., LTD.	KANDAL	TAIWAN
129.	THAI PORE GARMENT MANUFACTURING CO., LTD.	PHNOM PENH	SINGAPORE
130.	TONGA GARMENT CO., LTD.	PHNOM PENH	TAIWAN
131.	TOP CLOTHES CAMBODIA CO., LTD.	KANDAL	KOREA
132.	TOP ONE GARMENTS (CAMBODIA) MFG LTD.	PHNOM PENH	TAIWAN
133.	TRINUNGGAL KOMARA GARMENT INDUSTRY CO., LTD.	PHNOM PENH	INDONESIA & HONG KONG
134.	TUN YUN TEXTILE (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
135.	UNITED FAITH GARMENT FACTORY CO., LTD.	PHNOM PENH	HONG KONG
136.	UNITED THREAD (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN, SINGAPORE & INDONESIA
137.	UNIVERSAL APPAREL (CAMBODIA)N CO., LTD.	PHNOM PENH	CAMBODIA & CHINA
138.	UNIVERSAL GLORY (CAMBODIA) LTD.	PHNOM PENH	HONG KONG

139.	USA FULLY FIELD (CAMBODIA) GARMENTS CO., LTD.	PHNOM PENH	CHINA
140.	VANCO INDUSTRIAL CO., LTD.	KANDAL	HONG KONG
141.	VOLUMECOCOMO APPAREL (CAMBODIA) INC.	PHNOM PENH	KOREA
142.	W & D (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN & USA
143.	WHITEX GARMENTS (CAMBODIA) CO., LTD.	PHNOM PENH	MALAYSIA
144.	WILSON GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	HONG KONG
145.	WINCAM CORPORATION.	PHNOM PENH	KOREA
146.	WINNER GARMENTS MANUFACTURING CO., LTD.	PHNOM PENH	TAIWAN
147.	WINNER KNITTING FACTORY LTD.	KANDAL	HONG KONG
148.	WONREX (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
149.	YUNG WAH INDUSTRIAL (CAMBODIA) CO.,LTD.	KANDAL	SINGAPORE
150.	ZHENG YONG GARMENT FACTORY CO., LTD.	PHNOM PENH	TAIWAN & CHINA

APPENDIX C

LIST OF STATISTICS BY USING SPSS

Frequency Tables of Physical Infrastructure

Road

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	10	6.7	6.7	6.7
	Average	130	86.7	86.7	93.3
	Good	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

Railway

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	124	82.7	82.7	82.7
	Less than average	26	17.3	17.3	100.0
	Total	150	100.0	100.0	

Airport

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	17	11.3	11.3	11.3
	Average	120	80.0	80.0	91.3
	Good	13	8.7	8.7	100.0
	Total	150	100.0	100.0	

Harbors/Port

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	15	10.0	10.0	10.0
	Average	125	83.3	83.3	93.3
	Good	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

Container terminal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	8	5.3	5.3	5.3
	Average	77	51.3	51.3	56.7
	Good	65	43.3	43.3	100.0
	Total	150	100.0	100.0	

Telecom

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	10	6.7	6.7	6.7
	Average	56	37.3	37.3	44.0
	Good	84	56.0	56.0	100.0
	Total	150	100.0	100.0	

Customs clearance system

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	1	.7	.7	.7
	Less than average	59	39.3	39.3	40.0
	Average	90	60.0	60.0	100.0
	Total	150	100.0	100.0	

Power-shortage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	1	.7	.7	.7
	Less than average	94	62.7	62.7	63.3
	Average	55	36.7	36.7	100.0
	Total	150	100.0	100.0	

Power supply breakdown

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	16	10.7	10.7	10.7
	Less than average	83	55.3	55.3	66.0
	Average	51	34.0	34.0	100.0
	Total	150	100.0	100.0	

Power supply cost

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	68	45.3	45.3	45.3
	Less than average	72	48.0	48.0	93.3
	Average	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		Road	Railway	Airport	Harbors/Port	Container terminal	Telecom	Customs clearance system	Power-shortage	Power supply breakdown	Power supply cost
N	Valid	150	150	150	150	150	150	150	150	150	150
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		3.0000	1.1733	2.9733	2.9667	3.3800	3.4933	2.5933	2.3600	2.2333	1.6133
Std.Deviation		.36637	.37980	.44791	.40825	.58700	.62118	.50629	.49535	.62837	.61072

Frequency Tables of Local Labor Resources

Labor force availability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	52	34.7	34.7	34.7
	Good	88	58.7	58.7	93.3
	Excellent	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

Cheap and abundant workers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	52	34.7	34.7	34.7
	Good	95	63.3	63.3	98.0
	Excellent	3	2.0	2.0	100.0
	Total	150	100.0	100.0	

Unskilled labor force

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	52	34.7	34.7	34.7
	Good	57	38.0	38.0	72.7
	Excellent	41	27.3	27.3	100.0
	Total	150	100.0	100.0	

Medium skilled labor force

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	3	2.0	2.0	2.0
	Less than average	39	26.0	26.0	28.0
	Average	88	58.7	58.7	86.7
	Good	20	13.3	13.3	100.0
	Total	150	100.0	100.0	

High skilled labor force

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	40	26.7	26.7	26.7
	Less than average	87	58.0	58.0	84.7
	Average	23	15.3	15.3	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		Labor force availability	Cheap and abundant workers	Unskilled labor force	Medium skilled labor force	High skilled labor force
N	Valid	150	150	150	150	150
	Missing	0	0	0	0	0
Mean		3.7200	3.6733	3.9267	2.8333	1.8867
Std. Deviation		.58067	.51157	.78660	.66974	.64023

Frequency Tables of Export Volume

US Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	42	28.0	28.0	28.0
	Same	30	20.0	20.0	48.0
	Increase	78	52.0	52.0	100.0
	Total	150	100.0	100.0	

EU Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	18	12.0	12.0	12.0
	Same	80	53.3	53.3	65.3
	Increase	52	34.7	34.7	100.0
	Total	150	100.0	100.0	

Non EU Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	4	2.7	2.7	2.7
	Same	118	78.7	78.7	81.3
	Increase	28	18.7	18.7	100.0
	Total	150	100.0	100.0	

Japan Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	4	2.7	2.7	2.7
	Same	122	81.3	81.3	84.0
	Increase	24	16.0	16.0	100.0
	Total	150	100.0	100.0	

Canada Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	14	9.3	9.3	9.3
	Same	103	68.7	68.7	78.0
	Increase	33	22.0	22.0	100.0
	Total	150	100.0	100.0	

Frequency Tables of Local Financial Resources

Well specified government policy on foreign investment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	4	2.7	2.7	2.7
	Average	14	9.3	9.3	12.0
	Good	41	27.3	27.3	39.3
	Excellent	91	60.7	60.7	100.0
	Total	150	100.0	100.0	

Availability of local financial capital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	28	18.7	18.7	18.7
	Less than average	82	54.7	54.7	73.3
	Average	35	23.3	23.3	96.7
	Good	5	3.3	3.3	100.0
	Total	150	100.0	100.0	

Favorable attitude of the local public toward foreign investment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	33	22.0	22.0	22.0
	Good	54	36.0	36.0	58.0
	Excellent	63	42.0	42.0	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		Well specified government policy on foreign investment	Availability of local financial capital	Favorable attitude of the local public toward foreign investment
N	Valid	150	150	150
	Missing	0	0	0
Mean		4.4600	2.1133	4.2000
Std. Deviation		.77399	.73764	.77719

Frequency Tables of Technology

Very low technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	11	7.3	7.3	7.3
	Average	95	63.3	63.3	70.7
	Good	28	18.7	18.7	89.3
	Excellent	16	10.7	10.7	100.0
	Total	150	100.0	100.0	

Low technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	8	5.3	5.3	5.3
	Less than average	8	5.3	5.3	10.7
	Average	94	62.7	62.7	73.3
	Good	31	20.7	20.7	94.0
	Excellent	9	6.0	6.0	100.0
	Total	150	100.0	100.0	

Medium technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	4	2.7	2.7	2.7
	Less than average	2	1.3	1.3	4.0
	Average	90	60.0	60.0	64.0
	Good	40	26.7	26.7	90.7
	Excellent	14	9.3	9.3	100.0
	Total	150	100.0	100.0	

High technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	81	54.0	54.0	54.0
	Less than average	28	18.7	18.7	72.7
	Average	36	24.0	24.0	96.7
	Good	5	3.3	3.3	100.0
	Total	150	100.0	100.0	

Very high technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	99	66.0	66.0	66.0
	Less than average	18	12.0	12.0	78.0
	Average	31	20.7	20.7	98.7
	Good	2	1.3	1.3	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		Very low technology	Low technology	Medium technology	High technology	Very high technology
N	Valid	150	150	150	150	150
	Missing	0	0	0	0	0
Mean		3.3267	3.1667	3.3867	1.7667	1.5733
Std. Deviation		.76410	.83076	.78396	.92987	.86192

Frequency Tables of Research and Development

R & D

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	132	88.0	88.0	88.0
	Yes	18	12.0	12.0	100.0
	Total	150	100.0	100.0	

Frequency Tables of Specialized Market

Tariff in the US market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	84	56.0	56.0	56.0
	Yes	66	44.0	44.0	100.0
	Total	150	100.0	100.0	

EU rules of origin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	88	58.7	58.7	58.7
	Yes	62	41.3	41.3	100.0
	Total	150	100.0	100.0	

Discriminatory effects of trading blocs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	93	62.0	62.0	62.0
	Yes	57	38.0	38.0	100.0
	Total	150	100.0	100.0	

Frequency Tables of the Garment Firms' Structures of Production

Woven cut and sew garments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	49	32.7	32.7	32.7
	Yes	101	67.3	67.3	100.0
	Total	150	100.0	100.0	

Knit cut and sew garments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	48	32.0	32.0	32.0
	Yes	102	68.0	68.0	100.0
	Total	150	100.0	100.0	

Knitwear garments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	140	93.3	93.3	93.3
	Yes	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

Frequency Tables of the Garment firms’ Strategy

Ability of production to compete

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	34	22.7	22.7	22.7
	Yes	116	77.3	77.3	100.0
	Total	150	100.0	100.0	

Parent company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	15	10.0	10.0	10.0
	Yes	135	90.0	90.0	100.0
	Total	150	100.0	100.0	

Buyers' purchasing order directly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	121	80.7	80.7	80.7
	Yes	29	19.3	19.3	100.0
	Total	150	100.0	100.0	

Channel parent company/Head office at abroad

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	20	13.3	13.3	13.3
	Yes	130	86.7	86.7	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		Ability of production to compete	Parent company	Buyers' purchasing order directly	Channel parent company/Head office at abroad
N	Valid	150	150	150	150
	Missing	0	0	0	0
Mean		4.0933	4.6000	1.7733	4.4667
Std. Deviation		1.68031	1.20402	1.58494	1.36429

Frequency Tables of Government

To avoid government environmental control imposed in their country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Average	21	14.0	14.0	14.0
	Average	82	54.7	54.7	68.7
	Good	36	24.0	24.0	92.7
	Excellent	11	7.3	7.3	100.0
	Total	150	100.0	100.0	

To enjoy special incentives given by host government to foreign and domestic investment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	15	10.0	10.0	10.0
	Good	60	40.0	40.0	50.0
	Excellent	75	50.0	50.0	100.0
	Total	150	100.0	100.0	

Quota system

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	52	34.7	34.7	40.0
	Less Than Average	3	2.0	2.0	42.0
	Average	42	28.0	28.0	70.0
	Good	23	15.3	15.3	85.3
	Excellent	22	14.7	14.7	100.0
	Total	150	100.0	100.0	

Non quota available

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	2	1.3	1.3	1.3
	Less Than Average	6	4.0	4.0	5.3
	Average	51	34.0	34.0	39.3
	Good	46	30.7	30.7	70.0
	Excellent	45	30.0	30.0	100.0
	Total	150	100.0	100.0	

Cheap and abundant labor force

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Average	9	6.0	6.0	6.0
	Average	30	20.0	20.0	26.0
	Good	69	46.0	46.0	72.0
	Excellent	42	28.0	28.0	100.0
	Total	150	100.0	100.0	

Government incentive

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Average	5	3.3	3.3	3.3
	Average	19	12.7	12.7	16.0
	Good	58	38.7	38.7	54.7
	Excellent	68	45.3	45.3	100.0
	Total	150	100.0	100.0	

Preferential market access

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Average	7	4.7	4.7	4.7
	Average	25	16.7	16.7	21.3
	Good	51	34.0	34.0	55.3
	Excellent	67	44.7	44.7	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		To avoid government environmental control imposed in their country	To enjoy special incentives given by host government to foreign and domestic investment	Quota system	Non quota available	Cheap and abundant labor force	Government incentive	Preferential market access
N	Valid	150	150	150	150	150	150	150
	Missing	0	0	0	0	0	0	0
Mean		3.2467	4.4000	2.5733	3.8400	3.9600	4.2600	4.1867
Std. Deviation		.78524	.66555	1.56877	.94890	.85042	.80627	.87766

Frequency Tables of Chance

To avoid government environmental control imposed in their country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Average	21	14.0	14.0	14.0
	Average	82	54.7	54.7	68.7
	Good	36	24.0	24.0	92.7
	Excellent	11	7.3	7.3	100.0
	Total	150	100.0	100.0	

Political stability in the host country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	6	4.0	4.0	4.0
	Good	48	32.0	32.0	36.0
	Excellent	96	64.0	64.0	100.0
	Total	150	100.0	100.0	

Steady growth of the national income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	25	16.7	16.7	16.7
	Good	67	44.7	44.7	61.3
	Excellent	58	38.7	38.7	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		To avoid government environmental control imposed in their country	Political stability in the host country	Steady growth of the national income
N	Valid	150	150	150
	Missing	0	0	0
Mean		3.2467	4.6000	4.2200
Std. Deviation		.78524	.56758	.71297

APPEMDIX D

LIST OF MODEL ANALYSIS BY SPSS PROGRAM

Coefficients (a, b) Model1

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	Labor force availability	.073	.029	.266	2.537	.012	.016	.130	.426	.206	.184	.480	2.085
	EU rules of origin	.164	.153	.101	1.072	.286	-.138	.465	.309	.088	.078	.590	1.696
	Knitwear garments	.850	.303	.211	2.802	.006	.250	1.450	.298	.226	.203	.925	1.081
	Buyers' purchasing order directly	.230	.191	.097	1.205	.230	-.147	.608	.263	.099	.087	.804	1.243

a Dependent Variable: Y = Export growth
b Linear Regression through the Origin

Summary Model 1

Model	R	R Square(a)	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.483(b)	.233	.212	.92255	.233	11.085	4	146	.000

a For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.
b Predictors: Buyers' purchasing order directly, Knitwear garments, EU rules of origin, Labor force availability
c Dependent Variable: Y = Export growth
d Linear Regression through the Origin

Coefficients (a, b) Model 2

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	Discriminatory effects of trading blocs	.644	.382	.124	1.685	.094	-.111	1.400	.192	.138	.122	.961	1.041
	Knitwear garments	.924	.300	.229	3.078	.002	.331	1.517	.298	.247	.222	.936	1.068
	Channel parent company/Head office at abroad	-.185	.184	-.166	-1.008	.315	-.549	.178	.351	-.083	-.073	.192	5.221
	Preferential market access	.120	.040	.493	2.988	.003	.041	.199	.418	.240	.216	.191	5.232

a Dependent Variable: Y = Export growth
b Linear Regression through the Origin

Summary Model 2

Model	R	R Square(a)	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.490(b)	.240	.219	.91816	.240	11.542	4	146	.000

a For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.
b Predictors: Preferential market access, Discriminatory effects of trading blocs, Knitwear garments, Channel parent company/Head office at abroad
c Dependent Variable: Y = Export growth
d Linear Regression through the Origin

Coefficients (a, b) Model 3

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	Power supply cost	.216	.056	.359	3.848	.000	.432	.302	.284	.625	1.599
	Tariff in the US market	.186	.146	.119	1.275	.204	.338	.104	.094	.625	1.599

a Dependent Variable: Y = Export growth
b Linear Regression through the Origin

Summary Model 3

Model	R	R Square(a)	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.442(b)	.195	.184	.93865	.195	17.935	2	148	.000

a For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression.This CANNOT be compared to R Square for models which include an intercept.
b Predictors: Tariff in the US market, Power supply cost
c Dependent Variable: Y = Export growth
d Linear Regression through the Origin

Coefficients (a, b) Model 4

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	X4 = Technology	.028	.008	.359	3.686	.000	.427	.290	.273	.577	1.732
	Tariff in the US market	.165	.153	.105	1.078	.283	.338	.088	.080	.577	1.732

a Dependent Variable: Y = Export growth
b Linear Regression through the Origin

Summary Model 4

Model	R	R Square(a)	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.435(b)	.189	.178	.94217	.189	17.248	2	148	.000

a For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.
b Predictors: Tariff in the US market, X4 = Technology
c Dependent Variable: Y = Export growth
d Linear Regression through the Origin

APPENDIX E

THE WORLD BANK'S VALUE CHAIN ANALYSIS

Box 3.1 The World Bank's Value Chain Analysis
The World Bank supported the preparation of a pioneering study on Cambodian value chains. Three of these are of relevance to the present study – cotton growing, textile manufacture, and garment manufacture. The salient points for each value chain are outlined below
Cotton Growing · Cotton farming in Cambodia is presently rather limited and carried out by largely illiterate farmers. Cambodia lacks a systematic structure and organization for the marketing of cotton. · Seeds account for 41% of the total cost and all high-quality seeds must be imported. In practice, these seeds yield much lower harvests (1.2 tons per hectare) than similar seeds in China (2.5 tons per hectare). · Most cotton farmers do not have the financial resources to irrigate their farms or to purchase adequate fertilizer inputs, the second major cost element of the value chain. These constraints also result in lower yields. · Most harvesting manually as farmers cannot afford machines and labor, although inexpensive, estimated to be only 50% as productive as in China. · As in all sectors, transactions costs and other unofficial payments result in higher costs for imports (of seeds and fertilizers) and problems with exports.
Textile Manufacture · The textile industry in Cambodia is very small and in an early stage of development. Apart from Manhattan, there is some yarn dyeing and some flat bed knitting. · The textile industry utilizes imported raw materials such as cotton, yarn, and chemicals, and these materials account for 65% of the total cost of the value chain. · The use of local cotton would significantly reduce the production cost of yarn, even at the present low domestic yield rates 25. · The cost of electricity is a major factor, and the high cost of imported fuel oil is a serious problem. This also raises transport costs. · The available labor has low-level skills and there exists no institutional framework to provide technical training support to the textile industry. · The high costs of importing/exporting create serious problems in the textile value chain.

Garment Manufacture

· Sustained growth of the value chain determined largely by preferential market access to the major markets, making this a quota-dependent industry. It is not clear how capable the garment industry is of entering new non-quota markets.

· The garment industry faces strong dependence on high-cost, imported raw materials, partly due to high administrative costs.

· Garment factories face unnecessary factory inspections, high export charges, and cumbersome export procedures.

· A large percentage of exports are dependent on foreign companies with no vertical linkages.

· Lack of incentives and support for backward linkages to deepen the supply chain

· High costs of electricity and diesel fuel.

Source: World Bank, 2003

APPENDIX F

FEATURES OF CAMBODIAN TEXTILE AND CLOTHING INDUSTRY

Box 3.2 Features of Cambodian Textile and Clothing Industry

(1). Predominance of the garment sector: The Cambodian textile and clothing industry is predominantly composed of a garment sector, without upstream industries like Textiles. The majority of the garment sector deals in the lowest end of manufacturing, called CMT (Cut, Make and Trim), by taking advantage of an unskilled labor force.

(2). Export orientation: It has grown by relying heavily on exports of assembled garment under the MFN system. Virtually all Cambodian textile and clothing products have manufactured and processed for exports. Therefore, the industry is subject to changes in the international trade environment.

(3). Foreign ownership: A predominant portion of textile and clothing manufacturing firms in Cambodia have owned by foreign investors, especially from East Asian countries. Local ownership is marginal. Thus, the industry, intrinsically footloose, is vulnerable to the global operation strategies of foreign investors.

(4). Concentrated destination: Like many other developing countries, the final destination of Cambodian garments is concentrated in two markets, the United states and the European Union. Over 95 percent of garment products head for those two markets.

Therefore, the Cambodian economy is highly susceptible to even a minor shake in the trade policy of those two regions.

(5). Power asymmetry: The garment manufacturing business in Cambodia depends on orders from major brand name merchandisers in advanced countries. Since the current international garment industry has the attributes of a buyer market, countries without definite technological excellence like Cambodia are exposed to dangers in the arbitrary distribution of orders among developing countries.

(6). Vulnerable market structure: although the market is not oligopolistic, the industry depends on heavily on a dozen large firms: about 8 percent (15 companies) operating in Cambodia command over 50 percent of the total garment exports.

(7). Monoculture products: Cambodia is a garment center for knitting apparel. From the textile trade statistics, it revealed that exports are highly concentrated on knitted apparel, which constituted 92 percent of total textile exports in 2004. Since 2000, trousers/pants and T–shirts have dominated Cambodian exports to the United States, while pullovers and t–shirts have dominated exports to the European Union.

(8). Female workforce: Due to the nature of the sophisticated manual work process, the female labor force, namely from rural areas, accounts for the majority of the total employment in the sector. About 85 percent of the employees in the industry are female workers.

(9). Geographic agglomerations: Factories have geographically agglomerated in a few urban areas, creating a nascent from of clustering. The majority of firms are located in and the vicinity of the capital area, Phnom Penh, and along road No.4.

Source: KIEP and KOICA, June 2006

APPENDIX G

SUMMARY OF FACTORS INFLUENCING THE CGI

Table 3.6 Summary of Factors Influencing the Cambodian Garment Industry

Factor/Condition	Determinant	Brief Description
1. Factor Conditions	***Geographic Condition and Natural Resource***	• a good geographic condition without violent storm, earthquake, snow, volcanic eruption, etc and neighboring countries are Laos PDR, Thailand & Vietnam. • only two ports: Sihanoukville Port about 230 from Phnom Penh Km and Dried Port in Phnom Penh.
	Physical Infrastructure	• one of the poorest in the region, high transportation and energy costs increase production costs • shipping companies still limited, with far distance to the important US markets take longer time than China, Hong Kong and Taiwan • infrastructure rated low & only comparable to Bangladesh, lagging behind other competitor countries such as China, Indonesia & Vietnam • railroads, port facilities, power supplies & the postal system are underdeveloped, only Telecommunication viewed as acceptable
	***Basic Labor* Force Resources**	• Cambodian labor forces are from the rural areas, most of them are uneducated and unskilled. • with cheap and abundant work force supply and estimated 6.5 million in 2005, around 47% of the country's population • In 2005, estimated 5 percent of the country's labor forces are garment workers • Most local workers are illiterate and female workers are dominant in the garment factory positions, but it is difficult to find local managers in

Factor Conditions (Cont.)	***Basic Labor* Force Resources (Cont.)**	the foreign invested firms, and most of them are inflow from foreign countries like China, Taiwan, Hong Kong, Malaysia, Singapore, and so on.
	Local Financial Market	• lack of public confidence in the banking system and of lending, providing a wide range of banking services but high cost Just have been seeing to improve at the infant stage and far behind of the international banking institutions
	Technological Equipments	• Technological Equipments are used in low level, and some firms are improved their productivity by CAD/ CAM, but is not widespread. • characteristic of countries consider cheaper labor costs are very competitive than to invest in machines or specific machine attachments
	Innovation Activities	• labor standards and innovative incentives in the US Trade Agreement gave Cambodia a market advantage • lack aggressiveness in absorbing new technology: lack of companies spending on (R&D) and business collaboration with universities
	Talents and Education	• Cambodia's education and training sectors are under the Ministry of Education, Youth, and Sports (MOEYS) and the Ministry of Labor and Vocational Training (MOLVT) • Training programs are developed and delivered for the intent of improving and upgrading the competitiveness of the industry • However, technical training is lacking at all personnel levels: senior managers, middle managers,

Factor Conditions (Cont.)	***Talents and Education (Cont.)***	technicians, supervisors, sewing operators, cutting–room personnel, and pressing, folding, and packing operators.
	Capital Operation	• a major foreign investor owned about 90–95%. • a cash–based economy & local commercial banks' share of working capital is negligible.
2. Demand Conditions	***Domestic demand***	• a small domestic market, both its small population base and only 18 percent urban. • Market condition is one of the most important factors • Expecting to enlarge local markets by international tourists.
	International demand	• exporting garments worth US$20m and $1.6bn in 1995 and in 2004 respectively. • More than two–thirds of exports are directed to the U.S. market and less than one–third directed to the European market. • However, exports continue to increase in 2005, 2006
3. Related and Supporting Industry	***Cloth & Auxiliary Material supply***	• cloth and accessory materials are imported from South Korea, Hong Kong, Taiwan, China and ASEAN • Cambodia has no supplier in fabric, threads, accessory and trims. If available are more expensive in other words, quantities are limited
	Machinery Suppliers	• imported from various countries • machines typically operated at low levels of efficiency.

Related and Supporting Industry (Cont.)	***Machinery Suppliers (Cont.)***	• Lack of investment in maintenance, plus ineffective spare parts stock control
	Specialized Market	• Cambodian garment firms distribute their garment products in the global market depend on their parent company at abroad. • to improve labor standards, monitor improvements, and report
	Association or Agency	• Have both formal and informal institutions that link Cambodia with network partners, provide trust, and enforce terms of transactions • The Ministry of Commerce is the most involved in the garment industry and the Ministry of Labor and Vocational Training &other ministries have strong interests in the industry. • the Garment Manufacturers Association of Cambodia plays a very active role in negotiating.
	Culture and Fashion	• no well-developed garment culture • Fashion has implemented under AFD-GMAC collaboration. • in collaboration activities with TaF.tc, a collation of style from various fashion markets: London, Paris, Milan, New York, condensed into a DVD for distribution to members on request. • A bi–annual color & style presentation was conducted

4. Industry	***Structure***	• without upstream industries like Textiles, the lowest

Strategy, Structure and Rivalry		end of manufacturing, called CMT (Cut, Make and Trim), taking advantage of an unskilled labor force • Up&downstream product development&apparel management operations: marketing, fashion research, merchandising, product design and development, sourcing of fabrics and findings, finance, buyer relations – are typically handled by parent offices • relying heavily on exports garment under the GSP and MFN system and foreign investors owned to set up their factories in Cambodia • exported two main markets, the United states & the European Union and depends on orders from international buyers. • highly concentrated on knitted apparel: trousers/pants, T-shirts to the United States, while pullovers and T–shirts to the EU • 85% of the employees are female workers from rural areas. • have geographically agglomerated in a few urban areas & the vicinity of the capital area, Phnom Penh, and along road No.4
Industry	***Strategy*** ***Strategy (Cont.)***	• Established a cluster firms as the Garment Manufacturers Association of Cambodia (GMAC) and focused development strategies on the competitiveness of the industry as below: (1) strengthening institutions and building an information base, (2) maintaining and improving market access, (3) reducing transactions costs, (4) shortening lead times and improving business operations, (5) improving the marketing

Strategy, Structure and Rivalry (Cont.)		environment, (6) enhancing labor productivity and empower women, and other major cost items
	Rivalry	• Vigorous local competition not only sharpens advantage at home but competed the great competitors at major foreign markets • behavior customers favor on the "made–in label", more generally, branded products, services provide products quickly or high quality, but cheap prices of products • Cambodia's position of specialization in the global production network depends on own competitiveness vis-à-vis other neighboring competitors, the most competitive field in the production of textile and clothing products, with similar infrastructure and technology participate
5. Government		• To pay great attention to this sector and has concentrated on the Cambodian garment industry to improve the development of its competitive edge in its global niche market. • plays a vital role in the negotiation with the US and the EU • has established the government and private forum to facilitate in doing business • takes proactive measures to improve the business environment to protect the sector's investments • has established a "trade facilitation" working group • provides incentives to export–oriented companies

Government (Cont.)		to attract new foreign direct investment • has effective implementation of its action plan for reforms: (1) combating corruption, (2) Judicial and legal reform, (3) civil service reform covering decentralization and de–concentration, and (4) reform of armed forces, especially decentralization
6. Chance		• Building Cambodia's reputation for good working conditions • Upgrading its capabilities of competitiveness, strengthening its productivities to stay quality products, delivery lead–time, and making good marketing strategy in communication with trade partners • Firms have to retain their working conditions and implement labor law with compliance, no sweetshop, and existing international brands • 'Improving productivity helps make the industry more competitive, but Cambodia still needs to maintain its niche as an ethical producer because competing on price or high labor standards is not enough. Moreover, Cambodian enterprises must work harder to improve both productivity and garment quality."

Source: Competitions based on the analysis in this section

APPENDIX H

TABLE 7.1 CONCLUSION OF RESULTS OF FINDINGS

Table 7.1 Conclusion of Results of Findings

Competitive Factors	Percent	Mean	SD	N	IL	Significance (Logit Model)
Railways	82.7	1.1733	.37980	150	Less important	No
Power supply Cost	93.3	1.6133	.61072	150	Less important	5%
Labor force availability	58.7	3.7200	.58067	150	High important	5%
Cheap and abundant workers	63.3	3.6733	.51157	150	High important	No
Unskilled labor force	65.3	3.9267	.78660	150	High important	No
Availability of local financial capital	54.7	2.1133	.73764	150	Less important	No
Technology	60.0	3.3867	.78396	150	Medium important	5%
Research and Development	88.0			150		No
Tariffs in the US market	44.0			150		10%
EU rules of origin	41.3			150		10%
Discriminatory effects of trading blocs	38.0			150		5%
Knitwear garments	06.7			150		5%
Buyers' purchasing order directly	19.3			150		10%
headquarters office at abroad	86.7			150		10%
To enjoy special incentives given by host government	90.0	4.4000	.66555	150	High important	No

Table 7.1 Conclusion of Results of Findings (Cont.)

Competitive Factors	Percent	Mean	SD	N	IL	Significance (Logit Model)
Preferential market access	78.7	4.1867	.87766	150	High important	5%
Political stability in the host country	96.0	4.6000	.56758	150	Most important	No
Steady growth of the national income	83.4	4.2200	.71297	150	High important	No

Note: Standard Deviation (SD), Importance Level (IL), No means analysis of Logit Model was emphasized on that factors have significant affect of the garment export growth, and 5% or 10% is a positive significant effect between factors and the competitiveness of the garment industry in Cambodia.

APPENDIX

ANALAYSIS OF THE COMPETITIVENESS OF THE GARMENT INDUSTRY IN CAMBODIA BY MR. POTRY CHHEAN

APPENDIX C

LIST OF STATISTICS BY USING SPSS

Frequency Tables of Physical Infrastructure

Road

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	10	6.7	6.7	6.7
	Average	130	86.7	86.7	93.3
	Good	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

Railway

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	124	82.7	82.7	82.7
	Less than average	26	17.3	17.3	100.0
	Total	150	100.0	100.0	

Airport

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	17	11.3	11.3	11.3
	Average	120	80.0	80.0	91.3
	Good	13	8.7	8.7	100.0
	Total	150	100.0	100.0	

Harbors/Port

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	15	10.0	10.0	10.0
	Average	125	83.3	83.3	93.3
	Good	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

Container terminal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	8	5.3	5.3	5.3
	Average	77	51.3	51.3	56.7
	Good	65	43.3	43.3	100.0
	Total	150	100.0	100.0	

Telecom

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	10	6.7	6.7	6.7
	Average	56	37.3	37.3	44.0
	Good	84	56.0	56.0	100.0
	Total	150	100.0	100.0	

Customs clearance system

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	1	.7	.7	.7
	Less than average	59	39.3	39.3	40.0
	Average	90	60.0	60.0	100.0
	Total	150	100.0	100.0	

Power-shortage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	1	.7	.7	.7
	Less than average	94	62.7	62.7	63.3
	Average	55	36.7	36.7	100.0
	Total	150	100.0	100.0	

Power supply breakdown

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	16	10.7	10.7	10.7
	Less than average	83	55.3	55.3	66.0
	Average	51	34.0	34.0	100.0
	Total	150	100.0	100.0	

Power supply cost

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	68	45.3	45.3	45.3
	Less than average	72	48.0	48.0	93.3
	Average	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		Road	Railway	Airport	Harbors/ Port	Container terminal	Tele com	Customs clearance system	Power-shortage	Power supply break down	Power supply cost
N	Valid	150	150	150	150	150	150	150	150	150	150
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		3.0000	1.1733	2.9733	2.9667	3.3800	3.4933	2.5933	2.3600	2.2333	1.6133
Std.Deviation		.36637	.37980	.44791	.40825	.58700	.62118	.50629	.49535	.62837	.61072

Frequency Tables of Local Labor Resources

Labor force availability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	52	34.7	34.7	34.7
	Good	88	58.7	58.7	93.3
	Excellent	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

Cheap and abundant workers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	52	34.7	34.7	34.7
	Good	95	63.3	63.3	98.0
	Excellent	3	2.0	2.0	100.0
	Total	150	100.0	100.0	

Unskilled labor force

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	52	34.7	34.7	34.7
	Good	57	38.0	38.0	72.7
	Excellent	41	27.3	27.3	100.0
	Total	150	100.0	100.0	

Medium skilled labor force

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	3	2.0	2.0	2.0
	Less than average	39	26.0	26.0	28.0
	Average	88	58.7	58.7	86.7
	Good	20	13.3	13.3	100.0
	Total	150	100.0	100.0	

High skilled labor force

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	40	26.7	26.7	26.7
	Less than average	87	58.0	58.0	84.7
	Average	23	15.3	15.3	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		Labor force availability	Cheap and abundant workers	Unskilled labor force	Medium skilled labor force	High skilled labor force
N	Valid	150	150	150	150	150
	Missing	0	0	0	0	0
Mean		3.7200	3.6733	3.9267	2.8333	1.8867
Std. Deviation		.58067	.51157	.78660	.66974	.64023

Frequency Tables of Export Volume

US Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	42	28.0	28.0	28.0
	Same	30	20.0	20.0	48.0
	Increase	78	52.0	52.0	100.0
	Total	150	100.0	100.0	

EU Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	18	12.0	12.0	12.0
	Same	80	53.3	53.3	65.3
	Increase	52	34.7	34.7	100.0
	Total	150	100.0	100.0	

Non EU Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	4	2.7	2.7	2.7
	Same	118	78.7	78.7	81.3
	Increase	28	18.7	18.7	100.0
	Total	150	100.0	100.0	

Japan Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	4	2.7	2.7	2.7
	Same	122	81.3	81.3	84.0
	Increase	24	16.0	16.0	100.0
	Total	150	100.0	100.0	

Canada Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	14	9.3	9.3	9.3
	Same	103	68.7	68.7	78.0
	Increase	33	22.0	22.0	100.0
	Total	150	100.0	100.0	

Frequency Tables of Local Financial Resources

Well specified government policy on foreign investment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	4	2.7	2.7	2.7
	Average	14	9.3	9.3	12.0
	Good	41	27.3	27.3	39.3
	Excellent	91	60.7	60.7	100.0
	Total	150	100.0	100.0	

Availability of local financial capital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	28	18.7	18.7	18.7
	Less than average	82	54.7	54.7	73.3
	Average	35	23.3	23.3	96.7
	Good	5	3.3	3.3	100.0
	Total	150	100.0	100.0	

Favorable attitude of the local public toward foreign investment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	33	22.0	22.0	22.0
	Good	54	36.0	36.0	58.0
	Excellent	63	42.0	42.0	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		Well specified government policy on foreign investment	Availability of local financial capital	Favorable attitude of the local public toward foreign investment
N	Valid	150	150	150
	Missing	0	0	0
Mean		4.4600	2.1133	4.2000
Std. Deviation		.77399	.73764	.77719

Frequency Tables of Technology

Very low technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than average	11	7.3	7.3	7.3
	Average	95	63.3	63.3	70.7
	Good	28	18.7	18.7	89.3
	Excellent	16	10.7	10.7	100.0
	Total	150	100.0	100.0	

Low technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	8	5.3	5.3	5.3
	Less than average	8	5.3	5.3	10.7
	Average	94	62.7	62.7	73.3
	Good	31	20.7	20.7	94.0
	Excellent	9	6.0	6.0	100.0
	Total	150	100.0	100.0	

Medium technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	4	2.7	2.7	2.7
	Less than average	2	1.3	1.3	4.0
	Average	90	60.0	60.0	64.0
	Good	40	26.7	26.7	90.7
	Excellent	14	9.3	9.3	100.0
	Total	150	100.0	100.0	

High technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	81	54.0	54.0	54.0
	Less than average	28	18.7	18.7	72.7
	Average	36	24.0	24.0	96.7
	Good	5	3.3	3.3	100.0
	Total	150	100.0	100.0	

Very high technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	99	66.0	66.0	66.0
	Less than average	18	12.0	12.0	78.0
	Average	31	20.7	20.7	98.7
	Good	2	1.3	1.3	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		Very low technology	Low technology	Medium technology	High technology	Very high technology
N	Valid	150	150	150	150	150
	Missing	0	0	0	0	0
Mean		3.3267	3.1667	3.3867	1.7667	1.5733
Std. Deviation		.76410	.83076	.78396	.92987	.86192

Frequency Tables of Research and Development

R & D

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	132	88.0	88.0	88.0
	Yes	18	12.0	12.0	100.0
	Total	150	100.0	100.0	

Frequency Tables of Specialized Market

Tariff in the US market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	84	56.0	56.0	56.0
	Yes	66	44.0	44.0	100.0
	Total	150	100.0	100.0	

EU rules of origin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	88	58.7	58.7	58.7
	Yes	62	41.3	41.3	100.0
	Total	150	100.0	100.0	

Discriminatory effects of trading blocs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	93	62.0	62.0	62.0
	Yes	57	38.0	38.0	100.0
	Total	150	100.0	100.0	

Frequency Tables of the Garment Firms' Structures of Production

Woven cut and sew garments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	49	32.7	32.7	32.7
	Yes	101	67.3	67.3	100.0
	Total	150	100.0	100.0	

Knit cut and sew garments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	48	32.0	32.0	32.0
	Yes	102	68.0	68.0	100.0
	Total	150	100.0	100.0	

Knitwear garments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	140	93.3	93.3	93.3
	Yes	10	6.7	6.7	100.0
	Total	150	100.0	100.0	

Frequency Tables of the Garment firms' Strategy

Ability of production to compete

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	34	22.7	22.7	22.7
	Yes	116	77.3	77.3	100.0
	Total	150	100.0	100.0	

Parent company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	15	10.0	10.0	10.0
	Yes	135	90.0	90.0	100.0
	Total	150	100.0	100.0	

Buyers' purchasing order directly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	121	80.7	80.7	80.7
	Yes	29	19.3	19.3	100.0
	Total	150	100.0	100.0	

Channel parent company/Head office at abroad

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	20	13.3	13.3	13.3
	Yes	130	86.7	86.7	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		Ability of production to compete	Parent company	Buyers' purchasing order directly	Channel parent company/Head office at abroad
N	Valid	150	150	150	150
	Missing	0	0	0	0
Mean		4.0933	4.6000	1.7733	4.4667
Std. Deviation		1.68031	1.20402	1.58494	1.36429

Frequency Tables of Government

To avoid government environmental control imposed in their country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Average	21	14.0	14.0	14.0
	Average	82	54.7	54.7	68.7
	Good	36	24.0	24.0	92.7
	Excellent	11	7.3	7.3	100.0
	Total	150	100.0	100.0	

To enjoy special incentives given by host government to foreign and domestic investment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	15	10.0	10.0	10.0
	Good	60	40.0	40.0	50.0
	Excellent	75	50.0	50.0	100.0
	Total	150	100.0	100.0	

Quota system

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	52	34.7	34.7	40.0
	Less Than Average	3	2.0	2.0	42.0
	Average	42	28.0	28.0	70.0
	Good	23	15.3	15.3	85.3
	Excellent	22	14.7	14.7	100.0
	Total	150	100.0	100.0	

Non quota available

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	2	1.3	1.3	1.3
	Less Than Average	6	4.0	4.0	5.3
	Average	51	34.0	34.0	39.3
	Good	46	30.7	30.7	70.0
	Excellent	45	30.0	30.0	100.0
	Total	150	100.0	100.0	

Cheap and abundant labor force

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Average	9	6.0	6.0	6.0
	Average	30	20.0	20.0	26.0
	Good	69	46.0	46.0	72.0
	Excellent	42	28.0	28.0	100.0
	Total	150	100.0	100.0	

Government incentive

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Average	5	3.3	3.3	3.3
	Average	19	12.7	12.7	16.0
	Good	58	38.7	38.7	54.7
	Excellent	68	45.3	45.3	100.0
	Total	150	100.0	100.0	

Preferential market access

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Average	7	4.7	4.7	4.7
	Average	25	16.7	16.7	21.3
	Good	51	34.0	34.0	55.3
	Excellent	67	44.7	44.7	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		To avoid governme nt environme ntal control imposed in their country	To enjoy special incentives given by host government to foreign and domestic investment	Quota system	Non quota available	Cheap and abundant labor force	Govern ment incentive	Preferentia l market access
N	Valid	150	150	150	150	150	150	150
	Missing	0	0	0	0	0	0	0
Mean		3.2467	4.4000	2.5733	3.8400	3.9600	4.2600	4.1867
Std. Deviation		.78524	.66555	1.56877	.94890	.85042	.80627	.87766

Frequency Tables of Chance

To avoid government environmental control imposed in their country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Average	21	14.0	14.0	14.0
	Average	82	54.7	54.7	68.7
	Good	36	24.0	24.0	92.7
	Excellent	11	7.3	7.3	100.0
	Total	150	100.0	100.0	

Political stability in the host country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	6	4.0	4.0	4.0
	Good	48	32.0	32.0	36.0
	Excellent	96	64.0	64.0	100.0
	Total	150	100.0	100.0	

Steady growth of the national income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Average	25	16.7	16.7	16.7
	Good	67	44.7	44.7	61.3
	Excellent	58	38.7	38.7	100.0
	Total	150	100.0	100.0	

Frequencies

Statistics

		To avoid government environmental control imposed in their country	Political stability in the host country	Steady growth of the national income
N	Valid	150	150	150
	Missing	0	0	0
Mean		3.2467	4.6000	4.2200
Std. Deviation		.78524	.56758	.71297

APPEMDIX D

LIST OF MODEL ANALYSIS BY SPSS PROGRAM

Coefficients (a, b) Model1

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	Labor force availability	.073	.029	.266	2.537	.012	.016	.130	.426	.206	.184	.480	2.085
	EU rules of origin	.164	.153	.101	1.072	.286	-.138	.465	.309	.088	.078	.590	1.696
	Knitwear garments	.850	.303	.211	2.802	.006	.250	1.450	.298	.226	.203	.925	1.081
	Buyers' purchasing order directly	.230	.191	.097	1.205	.230	-.147	.608	.263	.099	.087	.804	1.243

a Dependent Variable: Y = Export growth
b Linear Regression through the Origin

Summary Model 1

Model	R	R Square(a)	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.483(b)	.233	.212	.92255	.233	11.085	4	146	.000

a For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.
b Predictors: Buyers' purchasing order directly, Knitwear garments, EU rules of origin, Labor force availability
c Dependent Variable: Y = Export growth
d Linear Regression through the Origin

Coefficients (a, b) Model 2

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	Discriminatory effects of trading blocs	.644	.382	.124	1.685	.094	-.111	1.400	.192	.138	.122	.961	1.041
	Knitwear garments	.924	.300	.229	3.078	.002	.331	1.517	.298	.247	.222	.936	1.068
	Channel parent company/Head office at abroad	-.185	.184	-.166	-1.008	.315	-.549	.178	.351	-.083	-.073	.192	5.221
	Preferential market access	.120	.040	.493	2.988	.003	.041	.199	.418	.240	.216	.191	5.232

a Dependent Variable: Y = Export growth
b Linear Regression through the Origin

Summary Model 2

Model	R	R Square(a)	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.490(b)	.240	.219	.91816	.240	11.542	4	146	.000

a For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.
b Predictors: Preferential market access, Discriminatory effects of trading blocs, Knitwear garments, Channel parent company/Head office at abroad
c Dependent Variable: Y = Export growth
d Linear Regression through the Origin

Coefficients (a, b) Model 3

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	Power supply cost	.216	.056	.359	3.848	.000	.432	.302	.284	.625	1.599
	Tariff in the US market	.186	.146	.119	1.275	.204	.338	.104	.094	.625	1.599

a Dependent Variable: Y = Export growth
b Linear Regression through the Origin

Summary Model 3

Model	R	R Square(a)	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.442(b)	.195	.184	.93865	.195	17.935	2	148	.000

a For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression.This CANNOT be compared to R Square for models which include an intercept.
b Predictors: Tariff in the US market, Power supply cost
c Dependent Variable: Y = Export growth
d Linear Regression through the Origin

Coefficients (a, b) Model 4

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	X4 = Technology	.028	.008	.359	3.686	.000	.427	.290	.273	.577	1.732
	Tariff in the US market	.165	.153	.105	1.078	.283	.338	.088	.080	.577	1.732

a Dependent Variable: Y = Export growth
b Linear Regression through the Origin

Summary Model 4

Model	R	R Square(a)	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.435(b)	.189	.178	.94217	.189	17.248	2	148	.000

a For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.
b Predictors: Tariff in the US market, X4 = Technology
c Dependent Variable: Y = Export growth
d Linear Regression through the Origin

APPENDIX E

THE WORLD BANK'S VALUE CHAIN ANALYSIS

Box 3.1 The World Bank's Value Chain Analysis

The World Bank supported the preparation of a pioneering study on Cambodian value chains. Three of these are of relevance to the present study – cotton growing, textile manufacture, and garment manufacture. The salient points for each value chain are outlined below

Cotton Growing

· Cotton farming in Cambodia is presently rather limited and carried out by largely illiterate farmers. Cambodia lacks a systematic structure and organization for the marketing of cotton.

· Seeds account for 41% of the total cost and all high-quality seeds must be imported. In practice, these seeds yield much lower harvests (1.2 tons per hectare) than similar seeds in China (2.5 tons per hectare).

· Most cotton farmers do not have the financial resources to irrigate their farms or to purchase adequate fertilizer inputs, the second major cost element of the value chain. These constraints also result in lower yields.

· Most harvesting manually as farmers cannot afford machines and labor, although inexpensive, estimated to be only 50% as productive as in China.

· As in all sectors, transactions costs and other unofficial payments result in higher costs for imports (of seeds and fertilizers) and problems with exports.

Textile Manufacture

· The textile industry in Cambodia is very small and in an early stage of development. Apart from Manhattan, there is some yarn dyeing and some flat bed knitting.

· The textile industry utilizes imported raw materials such as cotton, yarn, and chemicals, and these materials account for 65% of the total cost of the value chain.

· The use of local cotton would significantly reduce the production cost of yarn, even at the present low domestic yield rates 25.

· The cost of electricity is a major factor, and the high cost of imported fuel oil is a serious problem. This also raises transport costs.

· The available labor has low-level skills and there exists no institutional framework to provide technical training support to the textile industry.

· The high costs of importing/exporting create serious problems in the textile value chain.

Garment Manufacture · Sustained growth of the value chain determined largely by preferential market access to the major markets, making this a quota-dependent industry. It is not clear how capable the garment industry is of entering new non-quota markets. · The garment industry faces strong dependence on high-cost, imported raw materials, partly due to high administrative costs. · Garment factories face unnecessary factory inspections, high export charges, and cumbersome export procedures. · A large percentage of exports are dependent on foreign companies with no vertical linkages. · Lack of incentives and support for backward linkages to deepen the supply chain · High costs of electricity and diesel fuel.
Source: World Bank, 2003

APPENDIX F

FEATURES OF CAMBODIAN TEXTILE AND CLOTHING INDUSTRY

Box 3.2 Features of Cambodian Textile and Clothing Industry

(1). Predominance of the garment sector: The Cambodian textile and clothing industry is predominantly composed of a garment sector, without upstream industries like Textiles. The majority of the garment sector deals in the lowest end of manufacturing, called CMT (Cut, Make and Trim), by taking advantage of an unskilled labor force.

(2). Export orientation: It has grown by relying heavily on exports of assembled garment under the MFN system. Virtually all Cambodian textile and clothing products have manufactured and processed for exports. Therefore, the industry is subject to changes in the international trade environment.

(3). Foreign ownership: A predominant portion of textile and clothing manufacturing firms in Cambodia have owned by foreign investors, especially from East Asian countries. Local ownership is marginal. Thus, the industry, intrinsically footloose, is vulnerable to the global operation strategies of foreign investors.

(4). Concentrated destination: Like many other developing countries, the final destination of Cambodian garments is concentrated in two markets, the United states and the European Union. Over 95 percent of garment products head for those two markets.

Therefore, the Cambodian economy is highly susceptible to even a minor shake in the trade policy of those two regions.

(5). Power asymmetry: The garment manufacturing business in Cambodia depends on orders from major brand name merchandisers in advanced countries. Since the current international garment industry has the attributes of a buyer market, countries without definite technological excellence like Cambodia are exposed to dangers in the arbitrary distribution of orders among developing countries.

(6). Vulnerable market structure: although the market is not oligopolistic, the industry depends on heavily on a dozen large firms: about 8 percent (15 companies) operating in Cambodia command over 50 percent of the total garment exports.

(7). Monoculture products: Cambodia is a garment center for knitting apparel. From the textile trade statistics, it revealed that exports are highly concentrated on knitted apparel, which constituted 92 percent of total textile exports in 2004. Since 2000, trousers/pants and T–shirts have dominated Cambodian exports to the United States, while pullovers and t–shirts have dominated exports to the European Union.

(8). Female workforce: Due to the nature of the sophisticated manual work process, the female labor force, namely from rural areas, accounts for the majority of the total employment in the sector. About 85 percent of the employees in the industry are female workers.

(9). Geographic agglomerations: Factories have geographically agglomerated in a few urban areas, creating a nascent from of clustering. The majority of firms are located in and the vicinity of the capital area, Phnom Penh, and along road No.4.

Source: KIEP and KOICA, June 2006

APPENDIX G

SUMMARY OF FACTORS INFLUENCING THE CGI

Table 3.6 Summary of Factors Influencing the Cambodian Garment Industry

Factor/Condition	Determinant	Brief Description
1. Factor Conditions	***Geographic Condition and Natural Resource***	• a good geographic condition without violent storm, earthquake, snow, volcanic eruption, etc and neighboring countries are Laos PDR, Thailand & Vietnam. • only two ports: Sihanoukville Port about 230 from Phnom Penh Km and Dried Port in Phnom Penh.
	Physical Infrastructure	• one of the poorest in the region, high transportation and energy costs increase production costs • shipping companies still limited, with far distance to the important US markets take longer time than China, Hong Kong and Taiwan • infrastructure rated low & only comparable to Bangladesh, lagging behind other competitor countries such as China, Indonesia & Vietnam • railroads, port facilities, power supplies & the postal system are underdeveloped, only Telecommunication viewed as acceptable
	***Basic Labor* Force Resources**	• Cambodian labor forces are from the rural areas, most of them are uneducated and unskilled. • with cheap and abundant work force supply and estimated 6.5 million in 2005, around 47% of the country's population • In 2005, estimated 5 percent of the country's labor forces are garment workers • Most local workers are illiterate and female workers are dominant in the garment factory positions, but it is difficult to find local managers in

Factor Conditions (Cont.)	***Basic Labor* Force Resources (Cont.)**	the foreign invested firms, and most of them are inflow from foreign countries like China, Taiwan, Hong Kong, Malaysia, Singapore, and so on.
	Local Financial Market	• lack of public confidence in the banking system and of lending, providing a wide range of banking services but high cost Just have been seeing to improve at the infant stage and far behind of the international banking institutions
	Technological Equipments	• Technological Equipments are used in low level, and some firms are improved their productivity by CAD/ CAM, but is not widespread. • characteristic of countries consider cheaper labor costs are very competitive than to invest in machines or specific machine attachments
	Innovation Activities	• labor standards and innovative incentives in the US Trade Agreement gave Cambodia a market advantage • lack aggressiveness in absorbing new technology: lack of companies spending on (R&D) and business collaboration with universities
	Talents and Education	• Cambodia's education and training sectors are under the Ministry of Education, Youth, and Sports (MOEYS) and the Ministry of Labor and Vocational Training (MOLVT) • Training programs are developed and delivered for the intent of improving and upgrading the competitiveness of the industry • However, technical training is lacking at all personnel levels: senior managers, middle managers,

Factor Conditions (Cont.)	***Talents and Education (Cont.)***	technicians, supervisors, sewing operators, cutting–room personnel, and pressing, folding, and packing operators.
	Capital Operation	• a major foreign investor owned about 90–95%. • a cash–based economy & local commercial banks' share of working capital is negligible.
2. Demand Conditions	***Domestic demand***	• a small domestic market, both its small population base and only 18 percent urban. • Market condition is one of the most important factors • Expecting to enlarge local markets by international tourists.
	International demand	• exporting garments worth US$20m and $1.6bn in 1995 and in 2004 respectively. • More than two–thirds of exports are directed to the U.S. market and less than one–third directed to the European market. • However, exports continue to increase in 2005, 2006
3. Related and Supporting Industry	***Cloth & Auxiliary Material supply***	• cloth and accessory materials are imported from South Korea, Hong Kong, Taiwan, China and ASEAN • Cambodia has no supplier in fabric, threads, accessory and trims. If available are more expensive in other words, quantities are limited
	Machinery Suppliers	• imported from various countries • machines typically operated at low levels of efficiency.

Related and Supporting Industry (Cont.)	***Machinery Suppliers (Cont.)***	• Lack of investment in maintenance, plus ineffective spare parts stock control
	Specialized Market	• Cambodian garment firms distribute their garment products in the global market depend on their parent company at abroad. • to improve labor standards, monitor improvements, and report
	Association or Agency	• Have both formal and informal institutions that link Cambodia with network partners, provide trust, and enforce terms of transactions • The Ministry of Commerce is the most involved in the garment industry and the Ministry of Labor and Vocational Training &other ministries have strong interests in the industry. • the Garment Manufacturers Association of Cambodia plays a very active role in negotiating.
	Culture and Fashion	• no well-developed garment culture • Fashion has implemented under AFD-GMAC collaboration. • in collaboration activities with TaF.tc, a collation of style from various fashion markets: London, Paris, Milan, New York, condensed into a DVD for distribution to members on request. • A bi–annual color & style presentation was conducted

4. Industry	***Structure***	• without upstream industries like Textiles, the lowest

Strategy, Structure and Rivalry		end of manufacturing, called CMT (Cut, Make and Trim), taking advantage of an unskilled labor force • Up&downstream product development&apparel management operations: marketing, fashion research, merchandising, product design and development, sourcing of fabrics and findings, finance, buyer relations – are typically handled by parent offices • relying heavily on exports garment under the GSP and MFN system and foreign investors owned to set up their factories in Cambodia • exported two main markets, the United states & the European Union and depends on orders from international buyers. • highly concentrated on knitted apparel: trousers/pants, T-shirts to the United States, while pullovers and T–shirts to the EU • 85% of the employees are female workers from rural areas. • have geographically agglomerated in a few urban areas & the vicinity of the capital area, Phnom Penh, and along road No.4
Industry	***Strategy*** ***Strategy (Cont.)***	• Established a cluster firms as the Garment Manufacturers Association of Cambodia (GMAC) and focused development strategies on the competitiveness of the industry as below: (1) strengthening institutions and building an information base, (2) maintaining and improving market access, (3) reducing transactions costs, (4) shortening lead times and improving business operations, (5) improving the marketing

Strategy, Structure and Rivalry (Cont.)		environment, (6) enhancing labor productivity and empower women, and other major cost items
	Rivalry	• Vigorous local competition not only sharpens advantage at home but competed the great competitors at major foreign markets • behavior customers favor on the “made–in label”, more generally, branded products, services provide products quickly or high quality, but cheap prices of products • Cambodia’s position of specialization in the global production network depends on own competitiveness vis-à-vis other neighboring competitors, the most competitive field in the production of textile and clothing products, with similar infrastructure and technology participate
5. Government		• To pay great attention to this sector and has concentrated on the Cambodian garment industry to improve the development of its competitive edge in its global niche market. • plays a vital role in the negotiation with the US and the EU • has established the government and private forum to facilitate in doing business • takes proactive measures to improve the business environment to protect the sector’s investments • has established a “trade facilitation” working group • provides incentives to export–oriented companies

Government (Cont.)		to attract new foreign direct investment • has effective implementation of its action plan for reforms: (1) combating corruption, (2) Judicial and legal reform, (3) civil service reform covering decentralization and de–concentration, and (4) reform of armed forces, especially decentralization
6. Chance		• Building Cambodia's reputation for good working conditions • Upgrading its capabilities of competitiveness, strengthening its productivities to stay quality products, delivery lead–time, and making good marketing strategy in communication with trade partners • Firms have to retain their working conditions and implement labor law with compliance, no sweetshop, and existing international brands • 'Improving productivity helps make the industry more competitive, but Cambodia still needs to maintain its niche as an ethical producer because competing on price or high labor standards is not enough. Moreover, Cambodian enterprises must work harder to improve both productivity and garment quality."

Source: Competitions based on the analysis in this section

APPENDIX H

TABLE 7.1 CONCLUSION OF RESULTS OF FINDINGS

Table 7.1 Conclusion of Results of Findings

Competitive Factors	Percent	Mean	SD	N	IL	Significance (Logit Model)
Railways	82.7	1.1733	.37980	150	Less important	No
Power supply Cost	93.3	1.6133	.61072	150	Less important	5%
Labor force availability	58.7	3.7200	.58067	150	High important	5%
Cheap and abundant workers	63.3	3.6733	.51157	150	High important	No
Unskilled labor force	65.3	3.9267	.78660	150	High important	No
Availability of local financial capital	54.7	2.1133	.73764	150	Less important	No
Technology	60.0	3.3867	.78396	150	Medium important	5%
Research and Development	88.0			150		No
Tariffs in the US market	44.0			150		10%
EU rules of origin	41.3			150		10%
Discriminatory effects of trading blocs	38.0			150		5%
Knitwear garments	06.7			150		5%
Buyers' purchasing order directly	19.3			150		10%
headquarters office at abroad	86.7			150		10%
To enjoy special incentives given by host government	90.0	4.4000	.66555	150	High important	No

Table 7.1 Conclusion of Results of Findings (Cont.)

Competitive Factors	Percent	Mean	SD	N	IL	Significance (Logit Model)
Preferential market access	78.7	4.1867	.87766	150	High important	5%
Political stability in the host country	96.0	4.6000	.56758	150	Most important	No
Steady growth of the national income	83.4	4.2200	.71297	150	High important	No

Note: Standard Deviation (SD), Importance Level (IL), No means analysis of Logit Model was emphasized on that factors have significant affect of the garment export growth, and 5% or 10% is a positive significant effect between factors and the competitiveness of the garment industry in Cambodia.

APPENDIX B

LIST OF CAMBODIA'S GARMENT INDUSTRIES

OF THE GARMENT MANUFACTURERS ASSOCIATION IN CAMBODIA

NO.	NAME OF THE COMPANY	ADREESS	COUNTRIES' INVESTORS
1.	8 STAR SPORTWER., LTD.	PHNOM PENH	SINGAPORE
2.	ACE APPAREL CO., LTD.	PHNOM PENH	KOREA
3.	ALL SUPER ENTERPRISE (CAMBODIA) LTD.	PHNOM PENH	TAIWAN
4.	APPEREL PLACE PTE LTD.	PHNOM PENH	SINGAPORE & TAIWAN
5.	ARCHID GARMENT FACTORY CAMBODIA LTD.	PHNOM PENH	HONG KONG
6.	ASD (CAMBODIA)CO., LTD.	PHNOM PENH	KOREA
7.	BERRY APPAREL (CAMBODIA) CO., LTD.	PHNOM PENH	MALAYSIA
8.	BEST TAN GARMENT LTD.	PHNOM PENH	CAMBODIA
9.	BORIC GARMENT (CAMBODIA) CO., LTD.	KANDAL	HONG KONG
10.	BRIGHT SKY PTE LTD.	PHNOM PENH	SINGAPORE
11.	BROADLAND CAMBODIA GARMENT INDUSTRIES CO., LTD.	PHNOM PENH	MALAYSIA
12.	CAMODIA APPAREL INDUSTRY LTD.	KOMPONG SPEU	CAMBODIA
13.	CAMBODIA SENBAO GARMENT MFG CO., LTD.	PHNOM PENH	TAIWAN
14.	CAMBODIA SPORTWEAR MFG LTD.	PHNOM PENH	HONG KONG
15.	CAMBODIAN HOI FU GARMENT & KNITTING FACTORY COMPANY LTD.	PHNOM PENH	MACAU

16	CAMBO FASHION CO., LTD.	PHNOM PENH	KOREA
17.	CAMBO HANDSOME	PHNOM PENH	KOREA
18.	CAMBO HANSOLL CO., LTD.	PHNOM PENH	KOREA
19.	CAMITEX (CAMBODIA) MFG CO., LTD.	PHNOM PENH	TAIWAN
20.	CHENTEX GARMENT CO., LTD.	PHNOM PENH	TAIWAN
21.	CHEAN PING GARMENT CO., LTD.	PHNOM PENH	TAIWAN
22.	CHU HSING GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
23.	CHUNG FAI KNITWEAR FTY LTD.	PHNOM PENH	HONG KONG
24.	CITY NEW GARMENT FACTORY (CAMBODIA) CO. LTD	PHNOM PENH	HONG KONG
25.	CMCW (CAMBODIA) CO., LTD.	PHNOM PENH	KOREA
26.	CUNG SING (CAMBODIA) GARMENT FACTORY LTD.	PHNOM PENH	HONG KONG
27.	DA JOO CAMBODIA LTD.	PHNOM PENH	KOREA
28.	DAI YOUNG CAMBODIA CO., LTD.	PHNOM PENH	KOREA
29.	DOUBLE WIN INTERNATIONAL CORP.	PHNOM PENH	TAIWAN & USA
30.	E GARMENT CO., LTD.	KANDAL	CHINA
31.	EAYUAN (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	CHINA
32.	EDA ENTERPRISE CO., LTD.	PHNOM PENH	TAIWAN
33.	ECENT CAMBODIA KNITTING CO., LTD.	KANDAL	CHINA

34.	ECLAT HIGHTER INTERNATIONAL GARMENT (CAMBODIA).	PHNOM PENH	TAIWAN
35.	E-FONG ENTERPRISE CO., LTD.	PHNOM PENH	CAMBODIA
36.	EMPEROR GARMENT INDUSTRY CO., LTD.	KANDAL	TAIWAN
37.	ETERNAL WAY (CAMBODIA) LIMITED.	PHNOM PENH	HONG KONG & CAMBODIA
38.	EVERGREEN APPAREL (CAMBODIA) CO., LTD.	PHNOM PENH	CAMBODIA
39.	EVERGREEN GARMENT LIMITED.	PHNOM PENH	KOREA
40.	F.Y CAMBODIA FASHION LIMITED.	PHNOM PENH	SINGAPORE
41.	FINE GIS CAMBODIA GARMENT CO., LTD.	PHNOM PENH	KOREA
42.	FLYING DRAGON (CAMBODIA) GARMENT LTD.	PHNOM PENH	HONG KONG
43.	FORTUNE FASHIONS LIMITED.	PHNOM PENH	CAMBODIA
44.	FORTUNE GARMENT & WOOLEN KNITTING FACTORY LTD.	KANDAL	CHINA
45.	FRANCO KNITTING GARMENT FACTORY LTD.	KANDAL	MACAU & CHINA
46.	GENNON (CAMBODIA) GARMENT MANUFACTURING	PHNOM PENH	HONG KONG
47.	GENUINE GARMENT (CAMBODIA) CO., LTD.	KANDAL	TAIWAN
48.	GHIM LI (CAMBODIA) PTE, LTD.	KANDAL	SINGAPORE
49.	GLADPEER GARMENTS FACTORY (CAMBODIA) LTD.	PHNOM PENH	HONG KONG
50.	GLOBAL APPARELS LIMITED.	KANDAL	MALAYSIA
51.	GOLD KAMVIMEX GARMENT FACTORY LTD.	PHNOM PENH	CHINA

52.	GOLDEN JET (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	CHINA & HONG KONG
53.	GOLDFAME ENTERPRISES (INT'L) KNITTERS LIMITED.	KANDAL	HONG KONG
54.	GOLDTEX (CAMBODIA) GARMENT MANUFACTURING LTD.	PHNOM PENH	HONG KONG
55.	GRACE SUN CAMBODIA GARMENT CO., LTD.	PHNOM PENH	HONG KONG
56.	GRANDTEX INTERNATIONAL CO., LTD.	PHNOM PENH	MALAYSIA & TAIWAN
57.	GREAT LANCELOT INTERNATIONAL CO., LTD.	PHNOM PENH	HONG KONG
58.	GREAT UNION (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	HONG KONG
59.	G.W ENTERPRISE LIMITED.	PHNOM PENH	TAIWAN & CHINA
60.	HAN SUNG (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	KOREA
61.	HEART ENTERPRISE (CAMBODIA) CO., LTD.	KANDAL	TAIWAN
62.	HECHTER (CAMBODIA) GARMENT LTD.	KANDAL	BRITISH
63.	HIGH BORN ENTERPRISE CO., LTD.	PHNOM PENH	TAIWAN
64.	HONG MING TA GARMENT CO., LTD.	PHNOM PENH	CHINA
65.	HONTEX CO., LTD.	PHNOM PENH	CHINA
66.	HORUS INDUSTRIAL CORP.	PHNOM PENH	TAIWAN & CAMBODIA
67.	HOYEAR (CAMBODIA) GARMENT LTD.	PHNOM PENH	HONG KONG
68.	HUGO INTERNATIONAL INVESTMENT CO., LTD.	PHNOM PENH	HONG KONG
69.	HUIYING ENTERPRISES (CAMBODIA) CO., LTD.	PHNOM PENH	CHINA

70.	HUNG WAH (CAMBODIA) GARMENT MFG LTD.	PHNOM PENH	HONG KONG
71.	HWEE HONG (CAMBODIA) GARMENT INDUSTRIES CO., LTD.	PHNOM PENH	MALAYSIA & CAMBODIA
72.	HYTEX GARMENTS (CAMBODIA) CO., LTD.	PHNOM PENH	MALAYSIA
73.	IN FONG (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	CHINA, TAIWAN & HONG KONG
74.	IN JAE GARMENT CO., LTD.	PHNOM PENH	KOREA
75.	INFM GARMENT CO., LTD.	PHNOM PENH	TAIWAN
76.	JRB ACTION TEXTILE & CLOTHING LTD.	PHNOM PENH	TAIWAN
77.	JUNE TEXTILE CO., LTD.	PHNOM PENH	MALAYSIA
78.	KENNETEX INTERNATIONAL (CAMBODIA) CO., LTD.	PHNOM PENH	CHINA & HONG KONG
79.	KING FIRST INDUSTRIAL CO., LTD.	PHNOM PENH	TAIWAN
80.	KING SLAND GARMENT CAMBODIA LTD.	PHNOM PENH	HONG KONG
81.	KOG VENG GARMENT CO., LTD.	PHNOM PENH	CHINA, CANADA & BRITISH
82.	LA (CAMBODIA) GARMENT PET, LTD.	PHNOM PENH	MALAYSIA
83.	M & V INTERNATIONAL MANUFACTURING LTD.	PHNOM PENH	MACAO
84.	MAKALOT GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
85.	MAUREA GARMENTS CORP.	PHNOM PENH	TAIWAN

86.	MAXLIN (CAMBODIA) CO., LTD.	KANDAL	HONG KONG
87.	MENG TONG GARMENT MANUFACTORY LTD.	KANDAL	HONG KONG
88.	MIN YUE AUSTRLIA (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	CHINA
89.	MING HOI (CAMBODIA) GARMENT MFG LTD.	PHNOM PENH	HONG KONG
90.	MSI GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	HONG KONG
91.	NAN KUANG GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
92.	NEW ISLAND CLOTHING (CAMBODIA) LTD.	PHNOM PENH	BRITISH
93.	NEW MAX GARMENT CO., LTD.	PHNOM PENH	TAIWAN
94.	NEW ORIENT (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	CHINA
95.	NEW POIT WORLD TRADE (CAMBODIA) LTD.	PHNOM PENH	HONG KONG
96.	NEW WIDE (CAMBODIA) GARMENT CO., LTD.	PHNOM PENH	TAIWAN
97.	NOBLE APPAREL LTD.	PHNOM PENH	SINGAPORE
98.	NUGGET TEXTILE (PTE) LTD.	PHNOM PENH	TAIWAN
99.	OCEAN GARMENT CO., LTD.	PHNOM PENH	BANGLADESH
100.	OCEANIC GARMENT CAMBODIA CO., LTD.	PHNOM PENH	HONG KONG
101.	PCCS GARMENT LIMITED.	PHNOM PENH	MALAYSIA
102.	PINE GREAT (CAMBODIA) GARMENTS CO., LTD.	PHNOM PENH	CHINA
103.	PLANET TEXTILE (CAMBODIA) CO., LTD.	PHNOM PENH	CAMBODIA

104.	POTAMON CAMBODIA LTD.	PHNOM PENH	HONG KONG
105.	QUALITY TEXTILES CO., LTD.	PHNOM PENH	MALAYSIA
106.	RELIABLE SOURCE INDUSTRIAL (CAMBODIA) CO., LTD.	PHNOM PENH	CHINA
107.	RONTEX APPAREL (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
108.	ROO HSING GARMENT CO., LTD.	PHNOM PENH	TAIWAN
109.	S.H INTERNATIONAL CO., LTD.	KANDAL	KOREA
110.	SABRINA (CAMBODIA) GARMENT MANUFACTURING	KOMPONG SPEU	TAIWAN
111.	SAN LEI FUNG GARMENT & WOOLEN KNITTING FACTORY LTD.	PHNOM PENH	MACAU
112.	SANGWOO (CAMBODIA) CO., LTD.	KOMPONG SPEU	KOREA
113.	SAN SAN GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	INDONESIA
114.	SHARP CASUAL CO., LTD.	KOMPONG SPEU	TAIWAN
115.	SHEN ZHOU (CAMBODIA) CO., LTD.	PHNOM PENH	CHINA
116.	SIN LAN HO GARMENT CO., LTD.	PHNOM PENH	TAIWAN
117.	SPLENDID CHANCE INTERNATIONAL LTD.	PHNOM PENH	CAMBODIA & CHINA
118.	SPORTEX INDUSTRY CO., LTD.	PHNOM PENH	TAIWAN
119.	SU TONG FANG GROUP YINH KAN (CAM.) GARMENT	PHNOM PENH	CAMBODIA & CHINA
120.	SIU QUINH GARMENT (MFG) LTD.	PHNOM PENH	HONG KONG & MACAU
121.	SUIT WAY & LA RISSACA-FASHION FACTORY LTD.	PHNOM PENH	CANADA

122.	SUN SHINE CO., LTD.	KANDAL	TAIWAN
123.	SUN SKY (CAMBODIA) INDUSTRIES CO., LTD	PHNOM PENH	TAIWAN
124.	SUNTEX PTE, LTD.	PHNOM PENH	SINGAPORE
125.	SUPREME CHOICE (CAMBODIA) GARMENT LIMITED.	PHNOM PENH	HONG KONG
126.	TACK FAT GARMENT (CAMBODIA) LTD.	PHNOM PENH	HONG KONG
127.	TACTICIAN INTERNATIONAL CO., LTD.	PHNOM PENH	TAIWAN
128.	TAI YUNG ENTERPRISES CO., LTD.	KANDAL	TAIWAN
129.	THAI PORE GARMENT MANUFACTURING CO., LTD.	PHNOM PENH	SINGAPORE
130.	TONGA GARMENT CO., LTD.	PHNOM PENH	TAIWAN
131.	TOP CLOTHES CAMBODIA CO., LTD.	KANDAL	KOREA
132.	TOP ONE GARMENTS (CAMBODIA) MFG LTD.	PHNOM PENH	TAIWAN
133.	TRINUNGGAL KOMARA GARMENT INDUSTRY CO., LTD.	PHNOM PENH	INDONESIA & HONG KONG
134.	TUN YUN TEXTILE (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
135.	UNITED FAITH GARMENT FACTORY CO., LTD.	PHNOM PENH	HONG KONG
136.	UNITED THREAD (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN, SINGAPORE & INDONESIA
137.	UNIVERSAL APPAREL (CAMBODIA)N CO., LTD.	PHNOM PENH	CAMBODIA & CHINA
138.	UNIVERSAL GLORY (CAMBODIA) LTD.	PHNOM PENH	HONG KONG

139.	USA FULLY FIELD (CAMBODIA) GARMENTS CO., LTD.	PHNOM PENH	CHINA
140.	VANCO INDUSTRIAL CO., LTD.	KANDAL	HONG KONG
141.	VOLUMECOCOMO APPAREL (CAMBODIA) INC.	PHNOM PENH	KOREA
142.	W & D (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN & USA
143.	WHITEX GARMENTS (CAMBODIA) CO., LTD.	PHNOM PENH	MALAYSIA
144.	WILSON GARMENT (CAMBODIA) CO., LTD.	PHNOM PENH	HONG KONG
145.	WINCAM CORPORATION.	PHNOM PENH	KOREA
146.	WINNER GARMENTS MANUFACTURING CO., LTD.	PHNOM PENH	TAIWAN
147.	WINNER KNITTING FACTORY LTD.	KANDAL	HONG KONG
148.	WONREX (CAMBODIA) CO., LTD.	PHNOM PENH	TAIWAN
149.	YUNG WAH INDUSTRIAL (CAMBODIA) CO.,LTD.	KANDAL	SINGAPORE
150.	ZHENG YONG GARMENT FACTORY CO., LTD.	PHNOM PENH	TAIWAN & CHINA

CURRICULUM VITAE

Name	Mr. Potry Chhean
Date of Birth	25 June 1974
Education Background	
Bachelor's Degree	Business Administration in International Business Management, Royal University of Phnom Penh, 2002
Diploma's Degree	Business, Secondary School of Business, Phnom Penh, 1997
Work Experience	2004–Present, Deputy Chief of Bilateral Trade Office, Bilateral Trade Department, The Ministry of Commerce, The Royal Government of Cambodia.
	1998–2003, official in Foreign Trade Department, The Ministry of Commerce, The Royal Government of Cambodia.