Czech University Of Life Sciences Prague

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Statistical Analysis Of Textile Industry Development in Cambodia

Bachelor Thesis

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Department of Statistics
Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

Chea Sivpheng

Economics and Management

Thesis title
Statistical analysis of textile industry development in Cambodia

Objectives of thesis

The aim of the thesis is to assess the import and export of garments and textile industry in Cambodia.

Methodology

In this thesis will be used time series analysis to analyze the development of selected indicators as well as categorical data analysis for analysis of own questionnaire survey.

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Keywords

Cambodia, garments, textiles, industry, labor force, statistical analysis

Recommended information sources

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Dean

Declaration

I hereby declare that I have written the bachelor thesis "Statistical Analysis Of Textile Industry Development in Cambodia" independently with use of quoted resources in bibliography.

In Prague, on 16th March 2015 …...…………………

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Statistical analysis of textile industry development in Cambodia

Statistická analýza vývoje textilního průmyslu v Kambodži

Summary

Cambodia is a developing country in which garment and textile are the biggest export. Macroeconomic in Cambodia have growth rapidly for the past few years.

The thesis is focus on statistical analysis of textile industry development in Cambodia. The main aim is to analyze the textile and garment industry in Cambodia. The theoretical part of the thesis describes the macroeconomic in textile industry in Cambodia. After theoretical part, there will be literature review. In literature review, they are some data that took from the Internet and official ministry website. There will be also interview survey. The aim of this thesis is to assess possible factor, which affect the textile and garment industry in Cambodia, which influence the garment and textile industry in Cambodia. It's also provided the information of the labor force in textile industry on which it gains made by the garment export has create new opportunity for wage employment and for those workers in poor rural villages and poor rural areas. It's also examined the growth of Cambodia in textile industry and the export of the garment, as well as the investment and the production of the garment and textile in local market and global market.

Keywords: Cambodia, garments, textiles, industry, labor force, statistical analysis

Souhrn

Kambodža patří mezi rozvojové země, kde oděvní a textilní průmysl představují významnou část exportu. Z makroekonomického hlediska rostla Kambodža v posledním období velmi rapidně.

Bakalářská práce se zaměřuje na statistickou analýzu textilního průmyslu v Kambodži, zejména pak s ohledem na oděvní průmysl. V teoretické části je vysvětlen makroekonomický kontext textilního průmyslu v Kambodži. Snahou práce je identifikovat možné faktory, které ovlivňují oděvní a textilní průmysl v Kambodži. Textilní průmysl zaujímá v této zemi velmi výraznou roli v zaměstnanosti populace, v exportních příležitostech a zejména pak možnost obživy zejména v chudších oblastech země. Práce je založena na analýzách časových řad a na rozhovorech s vybranými zástupci tamních podniků. Je vyhodnocen růst textilního průmyslu, investiční aktivita, produkce, kontext místního i globálního trhu.

Klíčová slova: Kambodža, oděvy, textil, průmysl, pracovní síla, statistická analýza

Table of Contents

1. Introduction

Garment and textile industries in Cambodia have been a part of the country since mid-1990s as well as one of the biggest garment exporter countries. A free market had been established in 1993 with the constitution. Garment and textile, both requiring low levels of production technology and especially cheap labour, that's the reason why so many foreign investors consider to come to developing country for their business, in which including Cambodia as their destination as well. Because of the growth of the garment industry in Cambodia, there are lots of opportunities for wage employment in the factory and especially for those workers who from the poor rural area in Cambodia. It helps those people employed and help the country with a better economics.

In the year of 2004, Cambodia have become a member of World Trade Organization (WTO) and it expansion of garment exporters, which has access to the United States market. Because of this access, United States made Cambodia to promote high labour in its export industries. In the end of 2004, Multi-Fiber Arrangement/agreement on Textile and clothing (MFA/ATC), Cambodia was also provision by MFA/ATC and also have the access to enter European Union market which were limited by export quotas. Cambodia was a member of Textile and Apparel Trade Agreement, (in short term called TATA) with United States since 1999, the agreement between the United States and Cambodia was that, US imposed quotas to imports from Cambodia. However, in 2001 Cambodia wanted to monitor with TATA, so the International Labour Organization (ILO) created Better Factories Cambodia (BFC) to monitor factories in Cambodia.

Because of the global financial in the last quarter of 2008, United States demand for clothing has been dropped   and as well as the United States has resulted in the loss of more than 65,000 garment factories job and especially, for those women who from the poor rural areas and used to work in those factories, they faced a very difficult time in that year.

Moreover, from 2011 until now, the working condition and labor standards had begun to reverse. There are many factories in Cambodia, which reported with so many

things such as, safety standards, disregarding fire safety and some other health care and most importance is employing child labor. According to the Better Factories Cambodia (BFC), in 2012, there were only 12% of the factories, which monitor by the BFC legal policies. On 31 December 2013, The Royal Government of Cambodia (RGC) agreed to increase the minimum wage in Cambodia from $75 to $100 per month. On top of that, starting from 2014, the factories also need to give $5 for health care benefits. However, even with the increasing of the minimum wages, Cambodian still can't cover their basic expense for their everyday activities, which contribute to the poor health for them.

2. Objectives of thesis and Methodology

2.1 Objectives

The main objective of this thesis is to assess possible factor, which affect the textile and garment industry in Cambodia

a. The first partial objective is to characterize the development of textile and garment industry in Cambodia and as a key to compare a real situation with theories of macroeconomic in Cambodia.

b. The second partial objective is to create an online interview survey with own questionnaires for marketing research. The aim of the interview survey is to identify the problem of textile industry and to identify the problem, which affect the competitiveness of textile industry in Cambodia.

As a hypothesis of the thesis, its presumed that the Cambodia as a country from the point of view of export of textile industry get over the global crises, which hit the world economy in the past.

2.2 Methodology

During the thesis was drawn from sources listed in the bibliography. Data in thesis was original took from official websites. There are interview surveys, which was carried out in the period between 10th and 28th January 2015. There were 3 factories took part in this interview. The interview took places online, using Skype program to communicate. The questionnaire was not anonymous, they provide their name and factories location and it contains 3 different factories. In this thesis, there will be based on quantitative and qualitative information gather through primary and secondary research. The primary research will be including interviews with questionnaires. And the secondary research will be based on literature reviews on relevant reports and article on Google.com

This thesis, also using Time Series for statistical analysis to simply collected numbers at regular interval a period of time and for graph using clustered column, pie, line and marked scatter to determined the different percentages.

Using time series to predict what will happen to garment export in Cambodia in the near future. The formula of time series decomposition:

$$TS: y = T + P + \varepsilon.$$

Trend function of time series using analytical smoothing by trend function, the trend function has seven types:

Linear: $T_t = a + b.t$

Quadratic: $T_t = a + b.t + c.t^2$

Logarithmic: $T_t = a + b.\log t$

Exponential: $T_t = a + b^t$

Power: $T_t = a + t^b$

Combined: $T_t = a + b.t + c.\sqrt{t}$

Logistic: $T_t = \dfrac{K}{1 + e^{a+bt}}$

Ordinary least square (OLS) is use to find the function which approximate to the data.

Line: $n.a + b\sum t_i = \sum y_i$ or $a\sum t_i + b\sum t_i^2 = \sum t_i y_i$

We also need to build the confidence interval for unknown future value   .The prediction base on trend function, which using the point estimate (y'_{t+i})

$$P(y'_{t+i} - t_\alpha \cdot s_{y'_{t+i}} \le y_{t+i} \le y'_{t+i} + t_\alpha \cdot s_{y'_{t+i}}) = 1 - \alpha,$$

Using standard error of estimated values based on formula:

$$s_{y'_{t+i}} = s_y \cdot \sqrt{(1 - I^2) \cdot \frac{n(n^2 - 1) + 12 i^2}{(n^2 - 1) \cdot (n - 2)}}$$

$$s_M = \frac{s}{\sqrt{N}}$$

Coefficient of correlation formula for computing:

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} \sqrt{n(\sum y^2) - (\sum y)^2}}$$

Confidence interval with the formula of upper and lower limit:

Lower limit = M - $Z_{.95}\sigma_M$

Upper limit = M + $Z_{.95}\sigma_M$

3. Literature Review

3.1 Macroeconomics situation in Cambodia

Macroeconomics has different definitions according to different writer or different sites. Here are some definitions:

"Macroeconomics is the field of economics that studied the behavior of the aggregate economy. Macroeconomics examines economy-wide phenomena such as changes in unemployment, national income, rate of growth, gross domestic product, inflation and price levels." (Investopedia, 2015)

"Macroeconomic is the study of the aggregate (total) effects on the national economy and the global economy of the choices that individuals, businesses, and governments make, Its studies the overall or aggregate economy" (MAITAH, 2013)

To understand more about macroeconomics, we need to look deep into Economic growth, unemployment, inflation, international trade and interest rates. These are the most important factor in macroeconomics term. Macroeconomics is really importance in garment and textile industry. Macroeconomic is normally talked about the Gross Domestic Product of the country, and in this case Cambodia GDP is one of the most importance to the labor and the industry. It's affecting the clothing industry, which lie outside not just their competitors but also small and big companies as well. When we talk about macroeconomic, we also focus on consumer factors, technological factors, legal and political factors and as well as the economic factor.

In some developed countries is unprecedented with the great depression of the financial crisis since 1930. Since Cambodia is a developing country, we had gone through these painful experiences as well. Nevertheless, still a much better than some other developing countries in the region, according to the lack of exposure of Cambodian bank. On top of that, Cambodia still faced with two important situations in macroeconomics, the first one is the indirect impact of the global financial crisis and the second of is the high inflation in the country. According to the development in Cambodia in a recent study, we learn that, Cambodia is the one of the least competitive country in the region which hampered by a poorly educated workforce, hampered by corruption and as well as the inefficient government.

The inflation in Cambodia, focus on two main important sections, first is the sector behind the recent rise of price and inflation and second is focus on government policy and macroeconomic stability and growth. In Cambodia, there are many textile industries, and there were the involved of a massive scramble in the global apparel trade when we talk about the working condition and wages of employees and employers. According to the new study in United State of America, the textile industry wages say that on inflation adjusted basis, earning for factory workers in most of the countries have been falling and that include some developing countries such as Bangladesh, China, and Cambodia. It's affected Bangladesh, because of the deadly industrial accident which appear in the news in 2013 also in Mexico which the wages were adjusted to the account of the local cost of living. On the other hand, textile industry wage in China rose more than 110 percent over the same time, they try to increase wages over all in the country, and this is probably the reason why there are many textile and garment industries is relocation to Cambodia.

3.1.1 History of the Economic in Cambodia

The Kingdom of Cambodia (Cambodia), which used to known as the Khmer Empire is a very small country, which have Thailand and Vietnam as it neighbor. There are 14.86 million people living in Cambodia in 2012 and it has 69,898 square miles, which is 181,035 km^2. Cambodia has 2 seasons, dry season and raining season. Cambodia always warm and hot and around July the temperature can be up to 40 degree. Cambodia had 4 cities and 20 provinces and Phnom Penh is the capital city.

Back to April 1975 until 1979, which Cambodia was under the leadership of the Khmer Rouge and that make the economic decreased badly.

"The economic development strategy of the Khmer Rouge was to build a strong agricultural base supported by local small industries and handicrafts." (Congress, 2013)

Manufactures output in Cambodia is different but is not very big and is mostly conducted on a small-scale and informal basis. With all of that long history that Cambodia had been faced, the country has experience many regime changes that resulted in the destruction of social and economic infrastructures. On the other hand,

in the year of 1991 Paris Peace Accord which we call "PPA" also in the year of 1993 General Election, Cambodia has come back for full political legitimacy, and to reform a planned to market economy and that make the country become a member of The Association of Southeast Asian Nation (ASEAN) in 1999 and in 2004 Cambodia also join World Trade Organization (WTO), and in 2015, Cambodia will be a member of ASEAN Economic Community (AEC). Since today, Cambodia known as a "free access" market, it is well integrated with globally and regionally. There are five members in ASEAN and the Free Trade Area (AFTA) that included Philippine, Singapore, Thailand, Indonesia and Malaysia. In the year of 1999, Cambodia being the last to join the AFTA with the objective to promote economic and culture development, as well as the exchange in South East Asia, by the inter Asian integration. In 2007, Cambodia made a decision with ASEAN Economic Community which known as AEC that it will come into operation in Cambodia on December 31st 2015. Cambodia expected that in this level of AEC integration will be consolidated by the elimination of tariffs and the adoption of foreign economic policy. There are many working groups have already been formed to develop the best procedures for cooperation. (CHAP, 2008)

Cambodia faced a very long period of civil war however the United Nation (UN) has supported and help the country to organized the election in year 1993 because the UN believe that when people has the right to vote that's mean the country would be in a better situation. So from the year of 1993 Cambodia has experienced the stable political situation and noticeable economic growth even in the time of global economic downturn. Cambodia always finds a way to be better in their economic with the help of United Nation. In Cambodia industries sector is one of the most important roles after agriculture. And By the year of 2004, Cambodia find it way to increase the major exporters of garment product with an export volume of 36 percent of the country's GDP, which is lots if we compare to the past of Cambodia history. In 2005 1st of January, Cambodia faced the global textile trade quotas problem that reject have brought a decrease in world market. In the same time, Cambodia garment industry remains 90 to 100 percent, which own by foreigners with so many decision takers in East Asia from where the production orders are received together with delivery instructions such as fabric and accessory supplies. (CHAP, 2008)

3.1.2 History of expending the industry

After the United Nation sponsored the elections, which were held in 1993, so many foreign investors were looking for opportunities in Cambodia because of the economical stability and the political view. Among those, foreign investor were interested in the garment industry for their first choice, which call Foreign Direct Investment (FDI) that stated in 1994 with some other foreign investor from other countries. Furthermore, in 1999, Cambodia was grated Most Favored Nation which is MFN status by the United state and also signed the framework operation agreement with the European Union that allowed Cambodian garment and textile products to access to European Union and United State markets under the Generalized System of Preference (GSP). But, from the year 1997, for those free trade agreements have lead Cambodian garment industry increased rapidly. So, its mean that from the year 1999 to 2004, garment and textile industry in Cambodia were enjoy the quota free imposed by the United States with its cheap labor force. At that time, Cambodia find it self a good situation to tell the world about this industry by attracting many investments into the country while so many investors around the world are looking for cheap labor force with. And, because of cheap labor, quotas free impose and more, that's why right now, hundreds of garments and textile factories have been built up in Cambodia. (BRONH, 2013)

As you can see, in graph 1 below, showing the percentage of top 8 products in 2014, which, exported from Cambodia. In 2014, the least exports products were pearls, which exported only 4% while printed books exported 40% and clothing articles were 68% to exports from Cambodia.

Graph 1: Top 8 products exported from Cambodia in 2014
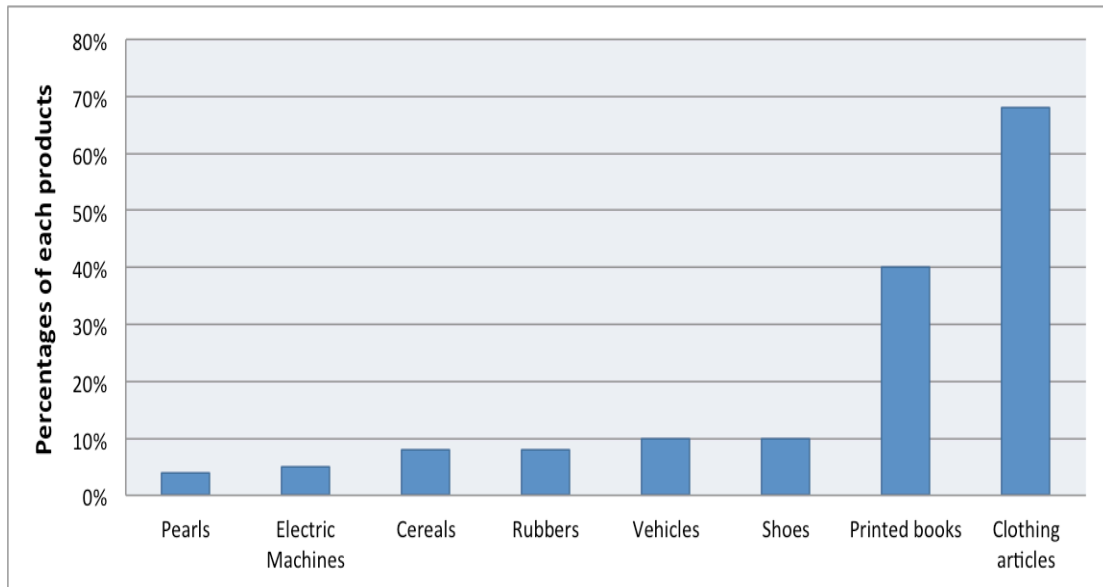
Source: Ministry of commerce 2014. Trade information.

3.1.3 Cambodia's GDP and Development of Garment and textile industry

In Southeast Asia, Cambodia rate as one of the best and fastest growing in the textile and garment textile over the period of 2003 to 2012. In the figure 1 below, it shows that there is relatively low and Cambodia classified as the least developed country according to Ministry of Economic and Financial. In year 2009 there was an economic crisis all around the world and Cambodia also faced a hard time in that period. In 1996, European Union (EU) and the United States decided to grant the status for Cambodia in the name of the Most Favored Nation (MFN), which help the country to gain more foreign direct investment into Cambodian garment and textile sector for purpose of utilizing the low tariff rate in those markets. As you can see in the year 2008, GDP growth annual in percentage was 6.69% and when it came to the year 2009 it drooped to 0.09%, however it increased back up in the year of 2010 by almost 6%. In 2004 the GDP growth rate in Cambodia reach 10% and it was even more better in 2005 because it was increase to 13.25% but it was decrease back to 10.77% in 2006 follow by 2007 which was 10.21%. (Hossain, 2010)

Figure 1: Trend of GDP in Cambodia from 2003 to 2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
GDP (constant 2000US$ Million)	5,036	5,556	6,293	6,970	7,682	8,196	8,203	8,693	9,307	9,983
GDP (current US$ Million)	4,658	5,337	6,293	7,274	8,639	10,351	10,401	11,242	12,821	14,038
GDP growth (annual %)	8,51	10,34	13,25	10,77	10,21	6,69	0,09	5,96	7,07	7,26
GDP per capital (constant 2000US$)	189,35	422,59	471,16	514,26	558,86	587,99	580,02	605,17	637,26	671,64

Source: World Development Indicator

Graph 2: GDP Growth Rate (%) in Cambodia

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Series2	8.5	10.3	13.3	10.8	10.2	6.3	-2.7	4.8	6.3	7.3	8.1	7
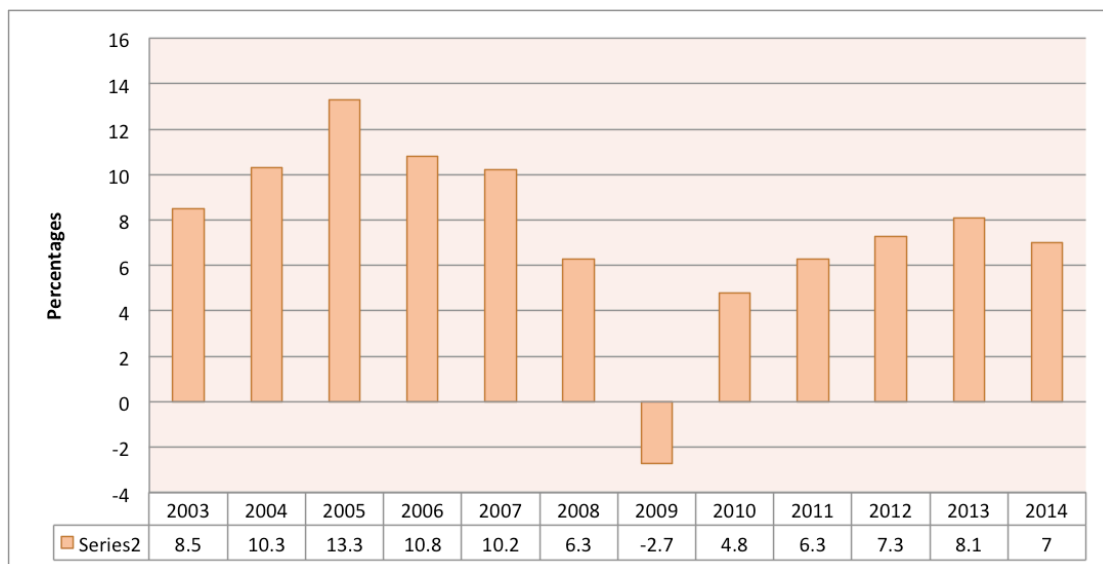
Sources: Cambodia ministry of economy and finance, Royal Government of Cambodian, 2013

Economy in Cambodian divided into three major sectors, which are Agriculture, Industry and Services. In 1999, GDP growth rate in Cambodia reached to 12.6% while in 2005 was at 13.3%. Nevertheless, GDP growth rate reject in the later years and in the year of 2009 it was negative due to economic crisis. So, growth rate of 4.8% has been projected in the year 2010 (Graph 2). In 2013 GDP would be $61,525 billion or approximately $15,191 with a population of 14.7 million while GDP per

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person was $1,036. In 2014, GDP growth rate decrease 1.1% so the GDP of 2014 was 7.0%.
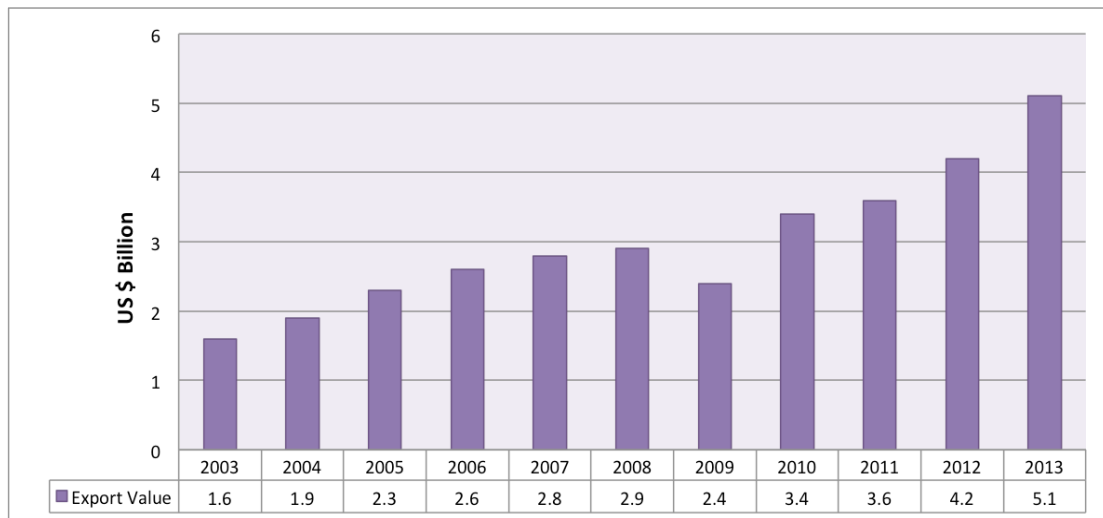
3.1.4 Production and Market Orientation

In 2005 there were 258 garment and textile factories, which then increase to 501 in 2012. Also, in the year of 2013 there are 57 new factories as a member of GMAC and it increase to 558 factories in that same year. On the other hand, those foreign investor for their garment and textile factories has concentrated only in the capital city Phnom Penh and it suburbs and in just a few neighboring major provinces only, because in Cambodia Capital city is a place to do business especially for garment industry. In Cambodia, every companies has to provided the information reported that prices were going down for the same types of garments produced. (NEAK and YEM, 2006)

3.1.5 Export of garment and textiles in Cambodia

Ministry of Commerce in Cambodia had post news early in 2014 about Cambodia's GDP, that the value of Cambodia's textile and garment exports in 2013 increased $5.1 billion. Garment exports increase $4 million (export value) in year 1994, while in 1996 it increased $79 million. In Graph 3 below, in 2009 Cambodia had a big problem in garment exports for the very first time, which was decrease $2.9 billion because of the economic crises, however it manage to increased to $3.4 billion in 2010. According to the International Monetary Fund, Cambodia's GDP growth in 2014 is at 6.7 percent. Since 1995, textile and garment industries in Cambodia had helped the country in foreign exchange. In that time garment industry started to emerge in Cambodia and it helped the country to become one of the best for garment industry in Southeast Asia. Since that time, the industry's performance continued to grow and having to compete freely in the international garment. (CHAN and OUM, 2011)

Graph 3: Cambodia's garment export value in US$ (Billion)

|	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Export Value	1.6	1.9	2.3	2.6	2.8	2.9	2.4	3.4	3.6	4.2	5.1

Source: (HANG, 2010) Presentation at Annual Conference of the Cambodian Economic Association, Ministry of Cambodia Economic and Finance.

As you can see in graph 4 below, the main market for Cambodia in 2012 is the United State. The United States bought 66% of Cambodia's garment in 2012. Although, Cambodia's garment exports are heavily concentrated toward the United States market, which follow by the European Union (22%), Canada (7%). For Cambodia, Japan also a very good foreign investor. (HANG, 2010)

"This agreement allowed Cambodia to avoid import duties of 16% on exports to the U.S, which gave the country an important competitive edge. The "Better Factories Program" of the International Labor Organization (ILO) grew out of this trade agreement. Under the Better Factories program, the ILO us charged with monitoring compliance with the labor standards." (HEINTZ, 2007)

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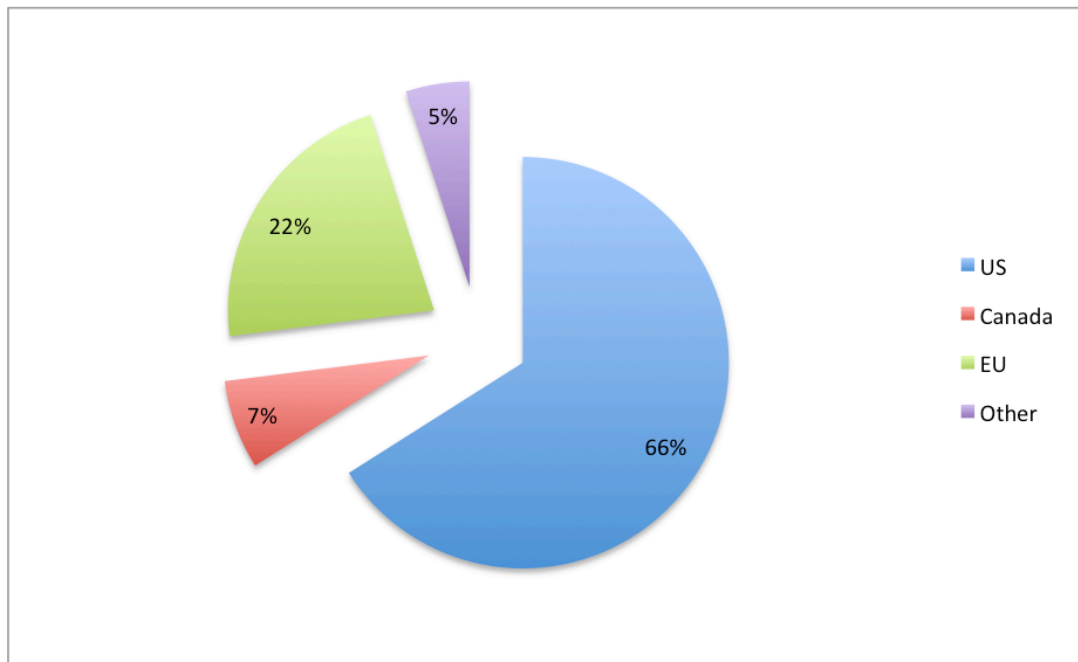
Source: Graph created by the author based on data provided by the Cambodian Ministry of Commerce [online data].

According to the MFA in 2004, export of garment in Cambodia increase approximately 45 percent. Also the share of total export increased from less than 60 percent before 1999 and more than 90 percent after 2000.

As in table 1 below, it shows Cambodia total export of garment from year 2004 to 2008. In year 2004 the share in total export was 88.56%, however in 2008 because of the economic crises the impact on share in total export was decreased to 84,96%

Table 1: Cambodia total export and garment's export

Particulars	2004	2005	2006	2007	2008
Total Exports	2,797.46	3,258.97	4,014.16	4,602.23	4,540.03
Garments Exports	2,477.30	2,698.28	3,321.76	3,766.89	3,857.13
Share in Total Exports (%)	88.56%	82.80%	82.75%	81.85%	84.96%

Source: study conducted by local research organization

3.2 Textile industry in Cambodia

3.2.1 Ownership of Cambodia industry

Garment and textile industries in Cambodia mostly own by foreigners. Direct foreign capital companies rate for over 97% of textile factories. Therefore, there is few percentage of some local ownership of textile industry that exists in Cambodia as well. These local ownership of textile industry in Cambodia, they would rather stark contrast to other counties, such as Vietnam, Bangladesh, China or Indonesia, where local ownership is much more important and also profitable. Indeed, many of these local textile companies in Cambodia operate through their family companies in other countries textile factories and the products are more or less substitutable. The small share of local ownership is one of the important characteristics of the Cambodian garment industry for the purpose of analysis, and is in rather stark contrast to Vietnam. The Cambodian government had providing an approval of establishment of 100% foreign owned firm in Cambodia since 1994. Because the role of state- owned enterprises (SOEs) in the economy was relatively limited. Following this, a number of companies have relocated their production base in order to utilize the export quota and low tariff rate to the US market since the late 1990s. As you can see in the flow, the figure shows that Taiwan is the main country that has own garment factories which is 86 factories (25%), follow by Hong Kong which own 68 factories (19%) and as well as China that own 65 factories (18%). Firms from greater China such as

Taiwan, Hong Kong, accounted for over 60% of the total garment factories in Cambodia. (NATSUDA & GOTO & THOBURN, 2009)

Figure 2: Garment factories by owner ship nationality in 2011
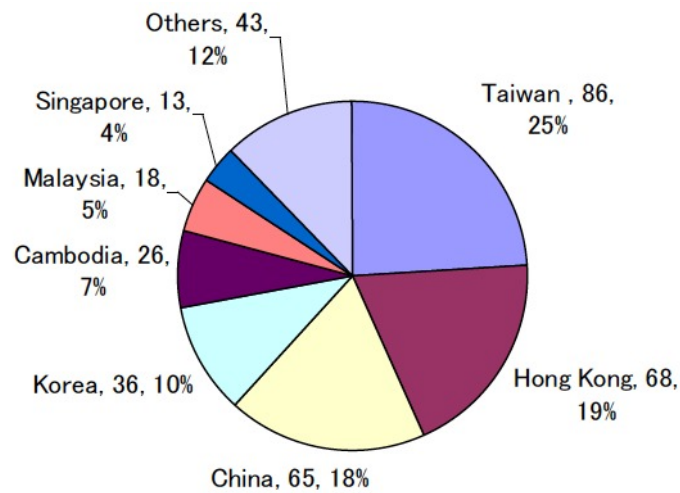
Note: 324 factories (including 14 temporary closed factories) registered under the Garment Manufacturers' Association in Cambodia (GMAC) as of the 27th August 2008; and 355 ownerships due to a joint venture of plural nationalities.
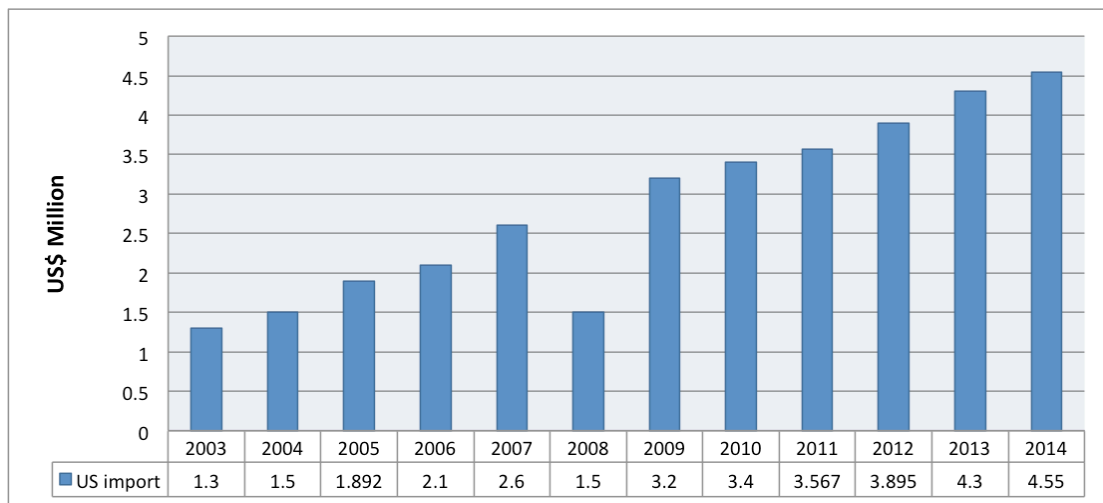Source: GMAC (2008)

Source: (NATSUDA & GOTO & THOBURN, 2009)

3.2.2 Global Buyers

In Cambodia, garment and textile's industries have two major foreign investors, which are United States and European Union. These two countries are the biggest investor in Cambodia and also the main export destination respectively accounting for 70 percent and 25 percent of total garment and textile exports. However, The United States is still the most important market for Cambodia and the largest share of export, accounting for 56 percent of all exports in 2004 and 66 percent in 2012. From 2005, export to the United States is undergirding the growth of Cambodia garment sector; this can affect the country's economic performance. In European Union, there are many countries that came to Cambodia for their investor, such as Czech republic, Germany, Austria, Spain and more. In Cambodia, garments and textile that produce for the United States market are mostly produced for segments in the lower price, where the competition in prices is very strong. For the United States, they think that,

price is very important element for any production. Also those garment and textile manufacturers employ simple design to minimize operational cost during the process. With regards to technology transfer, since the Japanese markets want Cambodia to produces high quality products, Japanese buyers still place on maintaining quality which provide an extremely strong commitments to improve the technical capacity of local manufactures. (M ZAKIR, 2010) (NATSUDA & GOTO & THOBURN, 2009)

Graph 5: United States import of garment from Cambodia in US$ million

US$ Million	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
US import	1.3	1.5	1.892	2.1	2.6	1.5	3.2	3.4	3.567	3.895	4.3	4.55

Source: US International Trade Commission

As it was mention above, United States was one of the biggest foreigner investors of textile industrial in Cambodia. In graph 5, it shows import of garment from Cambodia to United States in US$ (million), in year 2003 US import 1.3 million dollars of garment follow by 1.5 million dollars in 2004, the amount of garment keep increasing until 2008 it dropped from 2.6 million dollar (2007) to 1.5 million dollars, it decreased approximately 1.1 million dollars. This surprising decreased of import to the US, it because of the global crises which give every countries a hard time in their economics. However, from 2009 to 2014, the import of garment keep increasing, as it show in the graph, in 2014 it was 4.55 million dollars

Table 2: Top 20 buyers in Cambodia

Position	Buyer	Position	Buyer
1	GAP	11	Matalan
2	H&M	12	Blue Star
3	Levi Strauss	13	Nike
4	Adidas	14	PVH
5	Target	15	C&A
6	Sear Holding	16	Wal-Mart
7	Children's Place	17	Kohl's
8	Charles Komar	18	MGT
9	The William Carter	19	American Marketing
10	VF Jeanswear	20	JC Penny

Source: Ministry of Commerce of Cambodia, Original from (Miller, 2007), adopted from (NATSUDA & GOTO & THOBURN, 2009)

In table 2 show the top 20 buyers in Cambodia, these brands are very common in US, EU and Canada markets, GAP stand in the first position follow by H&M, Levi Strauss and Adidas stand number 4, if we look from the bottom, JC Penny was in 20th position, follow by American Marketing number 19th.

3.2.3 Policy

When foreigners want to invest in Asia, Cambodia is always one of their choices. Cambodia has it own policy that allow foreigners to invest in the country such as, government policies, constraints on domestic policies, the exchange rate policy, tax, promotion of infrastructure, access to market information, trade facilitation and more. However, Cambodia suggest two major policies direction for establishing a basis for industrial up-grading in the garment sector:

1. Expanding the number of joint ventures between Cambodia producers and foreign investor.

2. Pursing targeted industrial policies to increase the density of domestic linkages to garment manufacturing.

Moreover, tax and assets are still the most important policies for foreigner investors to follow. For Cambodia, the revenue from the tax collection is still very low if we compare to the neighbor counties such as, Thailand, Vietnam, Indonesia, Malaysia and more. One of the main problem for this, cause by the government that does not impose tax on property and land, as this is sensitive political issue in the country that happen since the 90s. That's why, right now in Cambodia the price of land is up and down and not so expensive especially in urban areas.

Overall, to the policies for foreigner investors are still better than other counties since it's a good place to establishment of a better place for trading activities and investment climate as government launches its trade. However, government still need to make a deal with a very strong recommended for low rate for land, tax and especially on-unused land, so this will generate revenue for the local and central governments and will reduced land speculation as well. (CHAP, 2008) (HEINTZ, 2007)

3.2.4 Labor standards and Employment

Having a good labor standard in developing country is very important. Since labor standard stand as one of the most important factor in garment and textile industry, Cambodia tried to make their labor standard become one of the best for their country. And lately Cambodia has been increasing their labor standards that is very important factor in garment and textile industry. Also because of the growth of consumer, in so many developing countries, including Cambodia, which has faced the labor, issues.

In Cambodia, there are hundreds of thousands of people are working in garments factories. Those workers usually wake up early in the morning and around 6 to 7am you will see those workers go to work by walk along the dusty roads, hold each other hands try to cross the road, some are on motor taxi and some riding their bicycle to reach the factory. According to Phnom Penh Post newspaper, those employers work average 54 hours each week. They have to work from 7am until 12pm and they will have a break for 1 hour and start to work again from 1pm until 5pm.

Cambodia has it own labor of garment and textile industry for employers and employee with their right and responsibility including minimum wage per month as well as the freedom of association agreements, which all workers must have. Moreover, Cambodia also provides jobs for low skilled labor force. In 1998, Cambodia has only 79.000 people employed in the garments and textile industrial. However in 2014 it's increase to 600.000 people employed in the country. In 2012 there are 80 percent of female workers in garment industrial, and according to Phnom Penh Post Newspapers in 2014 there are 90 percent of females workers, it was increased by 10 percent between the year of 2012 and 2014, this was a big change for Cambodia economic industrial. If we focus on these female workers, we know that 95 percent of them are from different provinces in Cambodia. For tem, they have to decided, do they want to risk their life due to agricultural productions and stuck in province where they born or do they want to start a new life by finding work in Phnom Penh, the capital city where all those factories located and have approximately 1856.000 informal jobs around the factories location. All these facts, it still not yet succeeded the gender gap in Cambodia. These female employment opportunities are highly focus in less skilled jobs, which are highly at risk to external shock like economic crises. According to Trade Union and Phnom Penh Post newspapers there are 60.000 female workers were laid off when the export of clothing slumped in garments and textile industry in 2009. During of this crisis, some of those unemployed female workers decided to go back to their hometown to work on the land and other unemployed women tried to find a job in the entertainment/service sector, which have dangerously high exposure to the flesh trade. (ITA, 2014) (NEAK and YEM, 2006)

3.2.5 Wage, Income, Corruption and Strike

As you already know Cambodia is a developing country and not just foreigner investments but also local investments knows Cambodia as a low labor cost country. Because of this, from 2006 to 2013 garment and textile sector help more than 1 million people to have job. According to Ministry of Economic and financial in Cambodia, these employments in textile industry received an average wage of US$85 per month in 2013. With their income of US$85 per month they spent half for their living such as renting a room with cost them around US$25 to US$30 include electric

and water. Another half of their salary they normally sent to their family who live in rural areas with have another 5 to 6 member. However, since living in Cambodia is still a cheap place, this amount of salary is still better and they still think that , they earn a high wage for themselves because they have money to pay for their rent and can sent to their family back home. However, they still need to save as much as possible to survive in the capital city. Cambodia's workers in this sector still receive higher salary than those workers who work in the same factor in Bangladesh where they earn just US$60 per month. Another problem is the Corruption in Cambodia, which rate as high level since the institution of government is really weak. Those foreigners investor tried to avoid taxes as well as the diversion of revenue and electoral fraud. Almost every single months there will be strike which workers facing soldiers in the streets fighting to the owner of the factory to increase their wages and their over time salary. In October 2014, factories such as ZARA, H&M, PUMA, ADDIDAS, LEVI'S, GAP, MANGO, British New Look and Iris Primark, decided to increase the minimum wage for their workers from 85 dollars to 128 dollars per month so that those worker can have a salary that they can have a decent living. These factories decided to increase the minimum wage because the strike was getting out of hand, the lack of the violence early in 2014 killed at least 3 people by polices during 350.000 strong strike. (Yamagata, 2006) (KHLANG, 2005)

"Corruption at this scale has affected Cambodia as a foreign investment destination, gravely deterring investors. Implemented reforms are superficial and have not made any real changes to the situation. Earlier this month, the Phnom Penh Post reported Cambodia to be one of the least-attractive investment destinations in the ASEAN region" (SCHREURS, 2014)
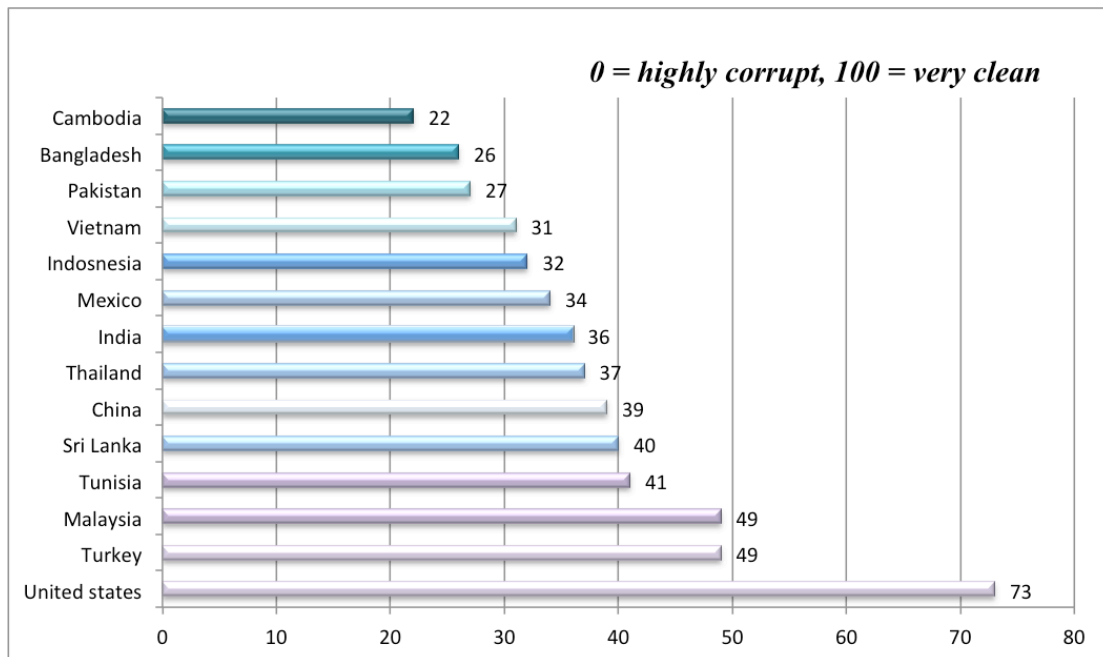
Source: International trade statistics 2014

As you can see from figure 3, Cambodia is in the first placed of the most corruption country in clothing export (count from 0 as the highly corrupt to 100 as very clean), follow by Bangladesh, Pakistan, Vietnam ect. In this figure it shows United States rate 73 as very clean from corruption in clothing export. Cambodia industrial relations are not in a good condition, to point out the problem. Because of the corruptions, which mention above, there are always, strike against the ownership of the industrial. However there are two main reasons in this case for illegal strikes, the first reason, whenever workers have problem, they report to the government, but most of the time, government never do anything, so those workers lost their trust in governmental institutes for helping them to solve their problems, second reason, those workers doesn't want to wait for procedures, because those procedures always take them too long to wait and they need to feed their household that it cant make them wait anymore, so these two simple reasons always lead to immediate strikes that always get out of hands. Cambodia has a bad reputation about Striking, it always about demanding higher wages or demand for employers to comply the law and regulation. In graph 6, you can see the number of strike cases between 2003 to 2014, the lowest

strike cases was in 2011, however between one year, strikes surprisingly increased to 121 cases (2012), according to union leader explained that, those workers demand to increase their averages, on the other hand, government think that if they agree to increase the averages wages, it would scare away foreign investors in Cambodia. Moreover, because of the global crisis in 2008, many foreign investors bankrupt, so many workers didn't have works and many other problems, according to this, the graph show strike cases increase from 80 in 2007 to 105 in 2008, it different approximately 25 cases. (BRONH, 2013) (MONG, 2014)

Graph 7: Strike Report from 2003 to 2014
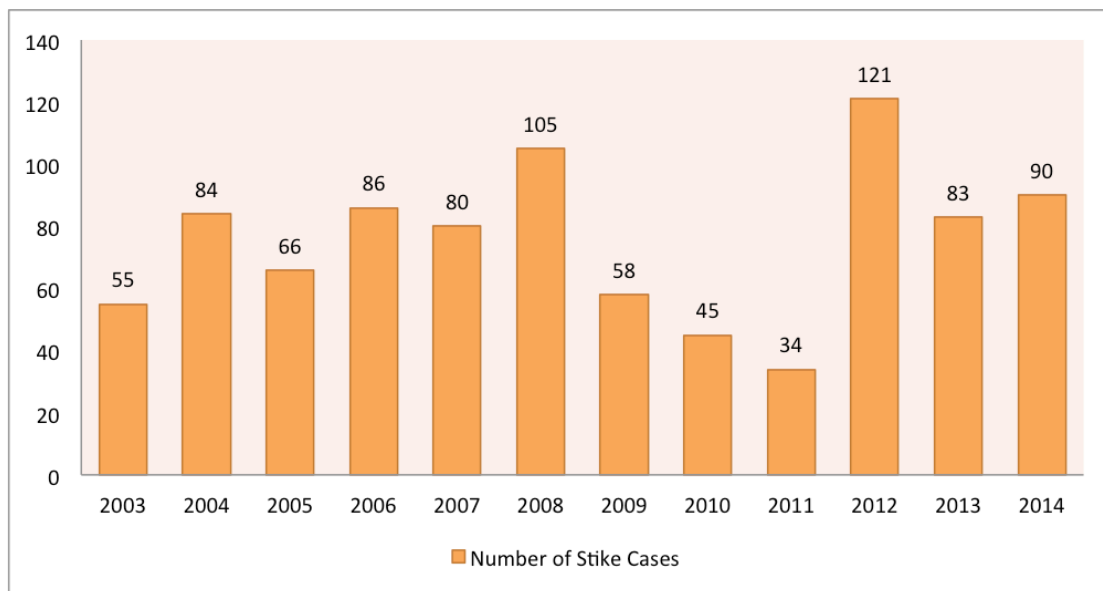
Source: Garment Manufacturers Association in Cambodia, 2014 (BRONH, 2013)

3.2.6 Competitive Factor

Cambodia's garment and textile industry can become really competitive, however the industry has managed to hold it own and hope to get the benefit from United State and European buyer and more which absorb multiple sources of supply. Investors of garment's textile industry strongly believe that Cambodia biggest competitor is Bangladesh, since Bangladesh's strength is low cost and has a really good relationship with United States and European buyers. These factory owners in Cambodia also aware of China, Vietnam, Indonesia, Philippine and Sri Lanka, since their labor prices and minimum wage is lower than Cambodia. There are more than costs that influence

to competitiveness. Garment and textile industry has been low cost producer for so long and still not yet improve much. It's also targets on a low road strategy that did not pursue an innovation. Factory should try to improve their productivities and also try to improve on working condition for their workers. In 2006, Cambodia approach to improving competitiveness in the garment and textile sector was base on three main parties, employers, employee and government representatives. Most of the factory owners did not understand the strategy of foreigner buyers such as United States and European, beside cost, quality and the capacity of factories, it seems to be important reasons for continue in Cambodia. (CHAN and OUM, 2011) (YIN, 2007)

3.2.7 Statistical Analysis of data, assessment and forecast

The data used for the analysis of Cambodia garment export value from 2003 to 20014 gathered from official webpage of Ministry of Cambodia Economic and Finance. The time series of this graph was design using Microsoft Excel 2011 with trend and linear function. To predict what will happen to Cambodia garment export value in 4 years from 2015 to 2018, author will use statistical to calculate the interval and confidential interval with the equation of r-square from linear function and standard deviation. This calculation was carried out in the period of 4th to 6th February 2015.

Graph 8: Garment export value with the used of trend and linear function
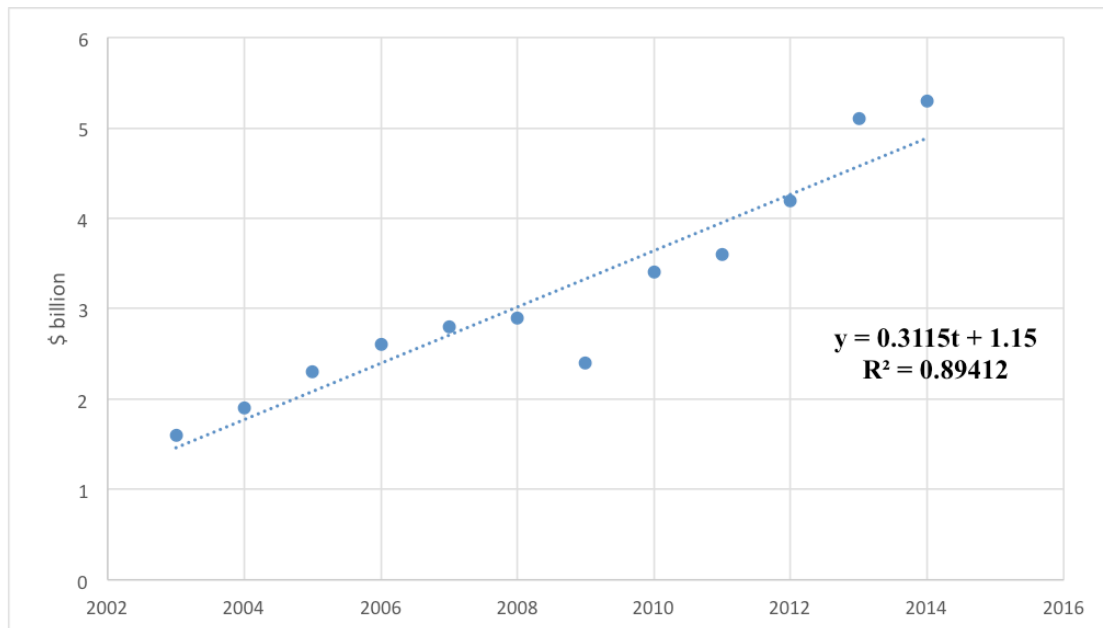
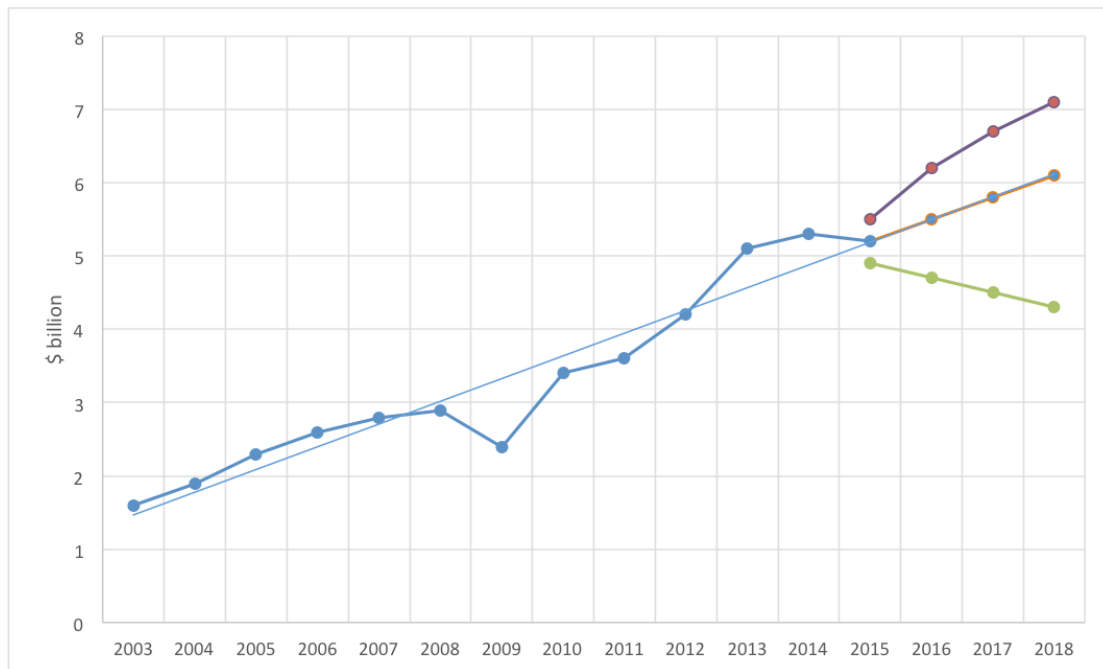Source: Ministry of Cambodia Economic and Finance (Own Processing)

In this graph it showed the garment export value from year 2003 to 2014 with the used of trend function. The point estimate of the function is 3.175 with the use of confidence coefficient of 95%, the significance level of 0.05 and the standard deviation is 1.19. The equation from linear function was:

y = 0.3115t + 1.15 and **R² = 0.89412**

According to the result, it showed that the cause of global recession hit the economy in the period of 2009, it made the garment export decreased from $2.9 billion in 2008 to $2.4 billion in 2009

In graph 9, author took the equation from linear function in graph 8 to predict what will happen to the garment export value in Cambodia from 2015 to 2018 (four years ahead) using time series to evaluate the

Source: Ministry of Cambodia Economic and Finance (Own Processing)

To know what will happen in the next 4 years, author used three different steps to evaluate the result.

Firstly, author takes interval estimate from linear function (**y = 0.3115t + 1.15**) that showed in graph 8, with the **R² = 0.89412** that's almost 90%, which can develop of Cambodia garment export value of linear function. In the graph it also show the confidence interval, with the point estimate function = 3.79, and the lower limit of 4.9 and upper limit of 5,5 as well ass, margin of error = 0,74. The standard deviation = 1.51 with confidence coefficient of 95% and the significance level of 0.05.

Secondly, author will calculate the forecasting from year 2015 to 2018.
2015: t = 13: = 5,2
2016: t = 14: = 5,5
2017: t = 15: = 5,8

2018: t = 16: = 6,1

Thirdly, will calculate confidential interval:

s_y = 1.19 (using excel to calculated standard deviation)

n = 12, I^2 = 0,89412,

$t_{0,05; (12-2)}$ = $t_{0,05(10)}$ = 2.22 (using critical value of Student's t-distribution)

I = 1, 2, 3, 4 (replace by 2015, 2016,2017,2018)

$s_{y(2015)}$ = 0,4256   ,   Δ2015 = 0,9448 ≅ 0,94

$s_{y(2016)}$ = 0,4300   ,   Δ2016 = 0,9546 ≅ 0,95

$s_{y(2017)}$ = 0,4373   ,   Δ2017 = 0,9708 ≅ 0,97

$s_{y(2018)}$ = 0,4472   ,   Δ2018 = 0,9927 ≅ 0,99

With the descriptive statistics, author has confidence level of mean 95%, with the interval:

$2015 = P(5,2 \pm 0,94) = 0,95$

$2016 = P(5,5 \pm 0,95) = 0,95$

$2017 = P(5,8 \pm 0,97) = 0,95$

$2018 = P(6,1 \pm 0,99) = 0,95$

As a result of finding the forecast between 2015 to 2018, using time series with linear and trend function, it shows the total of garment export value, is going to increase in the following years, with slightly decrease of 0.1% in 2015 compare to 2014. Moreover, according to global crises, which affect the garment export in Cambodia, it shows that the garment export value is not likely to be sustainable in the medium to long term with trade access.

4. Own Survey

4.1 Interview Survey

The interview used for the analysis of textile industry development in Cambodia preferences was created according to the rules of interview survey.

For this thesis I have been doing an interview with 3 different General Manager's advisors and administration manager of 3 different factories in Cambodia. The survey is not anonymous. This interview was carried out in the period between 10th to 28th January 2015.

The questionnaires for the interview were designed for General manager's advisors and administration managers of textile industry in Cambodia. The interview was held online, using Skype program to communicate.

At the beginning of the questionnaire easy to answer question were placed. The first question was about the name of the person and their position in the factory follow by the location of the factory. There were 3 different interview surveys, according to 3 different factories.

4.2 Analysis of respondent's answers

4.2.1 Evaluation of question No.1 – What is your name and what is your position in the factory?

Since there were 3 factories that had been doing this interview, there is also 3 different name, 3 different addresses

Factory No.1

Name of Interview: Ms. Monh Chan Kesey, General Manager's advisor and administration

Factory name: Cambo Hong Xing International Knitting, co.Ltd

Factory address: Village 2, Svay Rolom Commune, Saang District, Kandal province, Cambodia

Factory No.2

Name of interview: Mr Nhim Bunrith, General Manager's advisor and administration

Factory name: Apsara garment co.,Ltd

Factory address: Phnum Prey Pring Thbong, Sangkat Chom Chao, Khan Dangkor, Pnhom Penh, Cambodia

Factory No.3

Name of interview: Mr Sam kimchheng, General Manager's advisor and administration

Name of factory: Xiang Hecam Garment. Co.Ltd

Address of factory: Sangkat Steung Mean Chey, Khan Mean Chey, Phnom Penh, Cambodia

4.2.2 Evaluation of question No.2 – Where is your factory located?

According to these 3 interviews, 2 out of 3 located in the capital city, which is Phnom Penh, and another one is in Kandal province, where located next to the capital city.

4.2.3 Evaluation of question No.3 – does your factory have a retail outlet?

Both Xiang Hecam and Apsara factory have a retail outlet and they want to expand their retail outlet outside of Phnom Penh as well, They want to put more retail outlet in some other big cities as well as in some big province. While Cambo Hong Xing International Knitting factory said that, their factory still in a process of having a retail outlet store.

4.2.4 Evaluation of question No.4– Do you have local sales representatives?

All 3 factories respond to the same answers for this interview questionnaire. They do have sale representatives. A sale representative is really important because they are the one who promote their factory's good and service. They're helping the factory to sell products and service. They're hard working employee and their responsibilities are to introduce local employees and they must be great at making connection with other people.

4.2.5 Evaluation of question No.5 – Where do you source the garment and other products you sell?

Their answers are similar to each other, all 3 factories said that their main sources for their product are from China distributor and some other products are from Thailand, Vietnam, Indonesia, Philippine and etc.

4.2.6 Evaluation of question No.6 – How many employees do you have in your factory?

For this questionnaire, we focus on the age of the employees including children age 1 to 15 years old, Labor force age 15 to 65 years old and Retires age 65 to 90 years old.

1. Cambo Hong Xing International knitting factory: 2200 employees, ages 16 to 50 years old.

2. Apsara Garment factory: 3250 employees, age 16 to 54 years old.

3. Xiang Hecam Garment factory: 2677 employees, age 16 to 50 years old

So, according to their answers, all three factories have more than 2000 employees and employers in their factories.

4.2.7 Evaluation of question No.7 – Have your factory ever face a strike?

The main aim of this question is to know and understand more about work condition in the factory, which may or may not lead to strike. The first factory which is Cambo Hong Xing International knitting, said they never face any strike from their workers because they provides good condition for their workers as well as the minimum wages. However, for Apsara Garment and Xiang Hecam, both faced strike from their workers and they said, it's not a big strike and right now, they're trying to do everything they can do prevent this from happening again.

4.2.8 Evaluation of question No.8 – Would you like to change or improve something for your factory?

All three factories had almost the same respond, they all want to improve their factory. They want to expand more branches in Cambodia and do our best to make our employees more comfortable and feel safe and happy in our factory, create more space for their worker and need to improve our quality and expand the factory building space and more production order, and want to recruit more workers so that we can help them employ and have their career path.

4.2.9 Evaluation of question No.9 – Is competitive is the main problem for your factory?

In this question, we focus on the competitiveness in garment and textile industry in Cambodia. All three factories have the same answer, which competitive is their biggest problem. They try to attract workers to work in their factories by increase their salary and give them bonus. Buyers give low price while the minimum wages

are high. Almost every year, there are new factories come into Cambodia and try to take their good employees and employers. In 2014 there were about 50 new factories. All of those factories are also garments and textiles factories and they're export to the same countries and company. All three factories respond to the same strategies by wanted to increase their workers salary to prevent them of going to other factories.

4.2.10 Evaluation of question No.10 – Who are those workers? Why are they has such a low wage?

The aim of this question, is to know where are those workers come from, how are they survive for such a low wage while working almost 10 hours a day. Again, all three factories respond to the same answer by saying that, most of their workers are women and they came from other province, poor rural village and poor areas and for them, they think that the salary that their factory provide is more than other factories and that's a good salary for those workers.

4.2.11 Evaluation of question No.11 – What brand does your factory produce?

Factory number 1: Produce H&M (78%), Mango, Levi's, Zara, and C&A.

Factory number 2: Produce Polo, H&M, and C&A. They also produce perfumes, footwear, electronics, Leather products, cosmetics and other garments, which is ready to made.

Factory number 3: produce mostly PUMA, Mango, Levi's, Tommy Hilfiger and C&A.

According to their respond, all three factory produce C&A while two of the factory produce H&M and Mango.

4.2.12 Evaluation of question No.12 – is your factory profitable?

For this question, the aim is to know about their economic and financial in their factories, all three factory had the same answer by saying their factories is profitable but in the competitive way. Since competitive is the main problem for every factory, it's probably hard to them to finance their profit as well. Back in 2008 and 2009, because of the global economic crises, every factory faced a really hard time for their production and they lost lots of the profit, while other factories were bankruptcy.

4.2.13 Evaluation of question No.13 – How many countries did your factory export to? Can you list those countries?

The aim of this last question is to know how many countries come into Cambodia to do business in garment and textile industry.

Factory number 1: Thailand, Vietnam, Korea, Japan, Indonesia, Singapore, and United States of America. They also import to European countries, such as: Germany, Czech republic, Austria, Spain, Greece, and Poland.

Factory number 2: United States of America, Singapore, Indonesia, Philippine, Thailand, Vietnam, Saudi Arabia, U.A.E Qatar, and European Union.

Factory number 3: mostly export to United States of America, Singapore, Thailand, Vietnam and some other Asia countries. We also export to some Europe countries.

According to their respond, all three factories export to United States of America and European Union countries. This mean that EU and US come into Cambodia for their apparel industry. For these three factories, most of their answers are similar to each other, and according to their respond, as a result, we can conclude that Cambodia's apparels is not without challenge, the most importance things for them is the competition with new factories that came into Cambodia. The increasing of salary will soon chase the foreigner investors out from the country, and then Cambodia will face another problem, which is unemployment in the country. Moreover, labour unrest, putting pressure on supplier as well as the investor, to the world big textile and garment brand to increase worker salary, the reason behind this, is because workers think that their wage rises have never kept up with costs. From this interview we can see that inflation in Cambodia is really low for a developing country, even the price of basic items has risen faster.

5. Conclusion

The aim of this thesis was statistical analysis of textile industry development in Cambodia. In this thesis, it set out to assess possible factor, which affects the textile and garment industry in Cambodia.

There was interview survey, which took placed on the Internet using Skype program to communicate. The questionnaires consisted of 13 questions with three different general manager's advisors and administration managers of three different textile factories in Cambodia. This online interview was carried out on 10th – 28th January 2015. The questionnaire survey contained questions on; their position and location of factory, the amount of workers in the factory, strike, competition, type of brands that they produce, ect.

As a result, the cause of the global economic crisis in 2008 and 2009, proved that textile industries in Cambodia is not likely to be sustainable in the medium to long term with the trade access and low-cost labor. The garment and textile industry in Cambodia employed around 90% female young girls who are from the poor rural areas. Whenever, those young girls receiving jobs, they are now self-dependent because they mostly live in the capital city by themselves or with their work friends, on top of that, they still save up money from their income and sent to their family back in rural village. Beside agriculture, it shows that textile industry is the heart of Cambodia with quickly standing out among other Asian countries with a large garment and textile-manufacturing sector locate in the country.

The hypothesis of this bachelor thesis was to confirm that Cambodia got through the global crisis in export of garment and textile products and it was proved by a comparative analysis over the years. This comparative analysis showed that the biggest decrease of export of garment and textiles products was in the year of 2009, the cause of this decrease was because of the global crisis and statistics for following year 2010 up to 2014 its repeated growth of export of the products, as well as increase of all economics indicators supporting international export and import, mainly USA and European as we mention above.

According to forecasting in statistical analysis, which was calculating using Microsoft Excel, determine the graphs of Cambodia's garment export in value in US$ (billion). This graph shows the increasing of the forecasting from year 2015 to 2018, with a small dropped in 2015. According to the calculation using Microsoft Excel, author has standard deviation, which were 1,19 and the forecasting of 2015 expect to be $5.2 billion, follow by the expectation of 2016 = $5.5 billon, 2017 = $5.8 billion and 2018 = $6.1 billion. With this result, it describes that, at this very difficult time in Cambodia for the textile industry, United States and European Union still increased trade preferences and provides Cambodia a good deal by allowing the garment and textile industry to revitalize. With all of these positive impacts, Cambodia would compensate for the employment and livelihood, and it would really help Cambodia transition into a new sector and educate more people to understand about the work condition, their safety standard as well as labor force.

As a recommendation to the future, Cambodia should combine result of relevant local and international players. Cambodia should gain more trust from EU and US by improve labor standard and government polices. Strike is not a good thing for all parties, which include workers, owners and government. So Cambodia should prevent that from happen by making properly comply with labor law, as well as to increase the average wage, since that two were the main problems for workers to started strike in the first place. Moreover, what have to be done in term of a better industry, Cambodia needs to thinks of improve their commercial and their competitive environment. They should provide livelihoods to many who have little education and just a few skills.

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7. List of graphs and tables

Figures:

Table:

Graphs:

Acronyms

AEC	ASEAN Economic Community
AFTA	ASEAN Free Trade Area
ATC	Agreement on Textile and Clothing
ASEAN	The Association of Southeast Asian Nation
BFC	Better Factories Cambodia
FDI	Foreign Direct Investment
GDP	The Gross Domestic Product
GSP	Generalized System Of Preference
GMAC	Garment Manufacturers Association in Cambodia
ILO	International Labour Cambodia
MFA	Multi-Fiber Arrangement
MFN	Most Favored Nation
PPA	Paris Peace Accord
RGC	The Royal Government of Cambodia
SOEs	State-Owned Enterprises
TATA	US-Cambodia Textile and Apparel Trade Agreement
UN	United Nation
US	United States
WTO	World Trade Organization

8. Appendices

Appendix No. 1 - Interview

Dear Sir/Madam,

My name is Sivpheng Chea; I am a bachelor degree student at Faculty of Economics and Management at the Czech University of Life Sciences in Prague, Czech Republic. I would like to ask for your time to answer some of my questions that I had prepared for you, which will be used for my bachelor thesis "Statistical analysis of textile industry development in Cambodia". This questionnaire will be used only for my thesis. If you are interested, I would like to make an online appointment with you, so that we can communicate on Skype program.

Thank you very much for your help and contribution.
Sivpheng Chea

Contact e-mail: yayo_chea@yahoo.com
Skype Contact: yayokiddoricko (Sivpheng Chea)

Here are some of the questions that I would like to ask:

1. Where is your factory located?

2. Does your factory have a retail outlet?

3. Do you have local sale representatives?

4. Where do you source the garment and other products you sell?

5. How many employments do you have in your factory?

6. Have your factory ever face a strike?

7. Would you like to change or improve something for your factory?

8. Is competitive is the main problem for your factory?

9. Who are those workers? Why they have such a low wage?

10. What brand does your factory produce?

11. Is your factory profitable?

12. How many countries did your factory export to? Can you list those countries?

Appendix No. 2 – Factor affecting factories Competitiveness in 2014

Factory Workers	Factory Owners	International Retailer
Quality of product	Speed to market	Low cost/Quality/Reliability/Pre-production assistance
Wages	Productivity of workers	Speed to market/Labor standards
Good working condition/healthcare	Good working conditions/healthcare	Ability to deal with sophisticated design/materials
Training	Long standing prior relationship with your buyer	
	Living wage for workers	
	Technological advancements	
	Pre-production assistance/ability to deal with sophisticated design materials	
	Training of workers	
	Low cost	

Sources: Ministry of Economic and Management in Cambodia

Appendix No. 3– Stakeholders view of factors affecting Cambodia's competitive

Stakeholders	Comparative Advantages
Factory Workers	• Low cost of labor • High quality of products • Fast and efficient workforce • High labor supply • Reasonable target set
Factory Owners	• High quality of products • Cheap labor • Workers are quick learners and good at their work • Availability of labor (unskilled) • Favorable tax policies and incentives • Make Marginal profit • Offers better price • Buyer prefer the hospitable and cooperative nature of Cambodia entrepreneurs • Many owners and managers can communicate with buyers in English
Mid-Level Managers	• Standard of quality in higher than average • Worker spirit is high • Quality of labor is high • Cheap labor, but cheaper manufacturing cost, better price offered

	• High production capability
International Buyers	• Cheap labor • High production skills • Improving equality • Competitive price • The GSP system favor Cambodia export • Spirit of the country (worker etc) English Speaking
Associations	• Labor force is easily trainable, has good knowledge & understanding and is high quality • Good communication between the private sector and the government

Sources: Asian Foundation (competitiveness in the garment and textiles industry.

Appendix No. 4 – Stakeholders view of factors affecting Cambodia's competitive

Stakeholders	Comparative Disadvantages
Factory Workers	• Dependent on import of raw materials • Untrained, inflexible and abusive mid level management • Lake of facilities • Political disruption drives buyer away • Poor infrastructure
Factory Owners	• Poor infrastructure leads to shipment delays • Exchange rate fluctuation • Access to finance is very costly • Shortage of skilled labor • Major competition within the country • Lack of technology to produce complicated design • Bargaining power of workers • Negative country image portrayed by the media
Mid-Level Managers	• Workers have low productivity (relax, low literacy, low motivation) • Political and social unrest (lack of social security) • Lack of infrastructure
International Buyers	• Lack of fashion/trend sense • Lack of backward linkages • Lead time, though time needed to deliver has reduced in the last 2 years (with improvement in port facilities)
Association	• Mid-level management has low training, productivity, philosophy • Shortage of skilled workers • Poor infrastructure

Sources: Asian Foundation (competitiveness in the garment and textiles industry.