

## Table of Contents

<b>3</b>	<b>INDUSTRY ANALYSIS .....</b>	<b>1</b>
3.1	Introduction of Industry analysis .....	1
3.2	Brief discussion of Silk Industry (global).....	1
3.3	Silk Industry in Thailand .....	2
3.3.1	Silk Industrial Structure .....	2
3.3.2	Silk Worm Agriculture .....	4
3.3.3	Silk Hauling Industry .....	5
3.3.4	Transformed product industry.....	5
3.3.5	Industrial Cluster.....	7
3.3.6	Competition.....	7
3.4	Market Structure and Market Channels .....	8
3.4.1	Domestic Market.....	8
3.4.2	Foreign Market.....	9
3.5	Contribution of Silk Industry to Thailand.....	10
3.5.1	GDP.....	10
3.5.2	Employment .....	10
3.6	Environmental factors regards to Thai Silk Industry .....	10
3.6.1	Economic Overview of Thai Silk Industry .....	10
3.6.2	Technical Advantages regards to Thai Silk Industry .....	11
3.7	Economic Trend of Thai Silk in Thailand .....	13
3.7.1	Present Situation of Thai Silk Industry in Thailand.....	16
3.8	Industry Evolution Analysis .....	18
3.8.1	Productions development.....	18
3.8.2	Business Development.....	18
3.9	Silk Industry Forecasting .....	18
3.10	Linkage Industry Analysis .....	19
3.10.1	Tourism .....	19
3.10.2	OTOP .....	19
3.11	Industry Positioning: Jolie Femme .....	19
3.12	SWOT Analysis .....	20
3.13	Conclusion and Recommendations.....	21
3.13.1	Conclusion .....	21
3.13.2	Recommendation .....	21
APPENDIX : Entity Analysis: Jolie Femme .....		23
REFERENCES:.....		26

## **Index of Tables**

Table 3- 1: Ratio of silk worm agriculture in 2005 .....	4
Table 3- 2: Amount of local product in 2005 .....	5
Table 3- 3: Volume of World Silk Production.....	8
Table 3- 4: Thai Textile and Clothing Export Jan – October 2005 .....	15

## **Index of Figures**

Figure 3- 1: Silk Industry Structure .....	3
Figure 3- 2: Production transforms process .....	7
Figure 3- 3: Cocoon Market Channel .....	9
Figure 3- 4: Vertical and Horizontal Indication.....	19

### **3 INDUSTRY ANALYSIS**

#### **3.1 Introduction of Industry analysis**

In the era of fashion oriented society, textile industry is growing every year. All types of textile are brought up by designers to promote the uniqueness and beauty to the world. As in one of the textile, silk has been brought up by thousands of designer all over the world due to its properties of shiny, color attractions. Other than that, silk are more attractive to customers all over the world on the process of producing a single piece of silk, the complexity and patients required to raise and cultivate the cocoon and creation of single piece of the silk cloth is time consuming and required a high skill handicraft workforce. Therefore silk has been accepted all over the world as a precious piece of cloth that a certain piece can not be priced in the market. The world is waiting to see the new evolution of silk.

Silk industry has been classified into 2 main types which are handicraft silk and industrial silk. Handicraft silk is distinguished from the industrial silk by the production size and time consuming in production. Handicraft silk is more valued to the customer in terms of value added from the complexity and patients in doing handicraft work. On the other hand industrial silk are machine made silk. The industrial silks are produced in mass volume and are sold at a lower price. The handicraft silk itself is classified into 2 main streams which are agricultural silk threads and artificial silk threads; they are classified according to the source of material obtained. The agricultural silk threads are obtained from the cultivation processes which start from raising the cocoon, and cultivate them to extract the silk threads; where as the artificial silk threads obtain from man made fiber.

Both types of silk are attracted to consumer on its charm of beauty, the handicraft silk are charmed from the unintentional or unorganized pattern in production. Since most of the handicraft silks are produced from the agricultural silk threads, therefore the threads size and the length are not equal. In weaving there might be a torn part of the thread thus the weaver will have to tied up knots to the piece of silk. This reflects the artistically valued piece of work and charm to the customers. On the other hand the industrial silk is mainly made from artificial silk due to the limitation in size and length of the agricultural silk threads as mentioned above. Some of the customer likes industrial silk more due to the beauty of the silky smoothness of the piece of work which emboss out the shining as one of the properties of silk.

#### **3.2 Brief discussion of Silk Industry (global)**

Silk is one of the small portions in the global textile market. It has approximately less than 0.2 % of all textile percentage that has been traded around the world. However the amount of trading volume is not account on the tonnage figure, the actual trading value of silk and silk products is much more impressive. Silk industry is stationed at the level of billions dollar trade because the unit price of the low quality raw silk threads is approximately twenty times than the price of average quality raw cotton.

World market leaders in silk industry are belonged to two large countries in silk mass production which are China and India. They are both main producer and exporter, where Japan is the world largest importer to serve the local demand which much more exceeding the supplies. The world best processors of silk are in Italy and France, and Germany, these countries are more concerned in the quality, and receptive of the silk so the main stream of their import are from China, India, and Thailand. Surprisingly United State is the smallest consumer to silk product due to US market emphasize on the easy-care fabrics.

### **3.3 Silk Industry in Thailand**

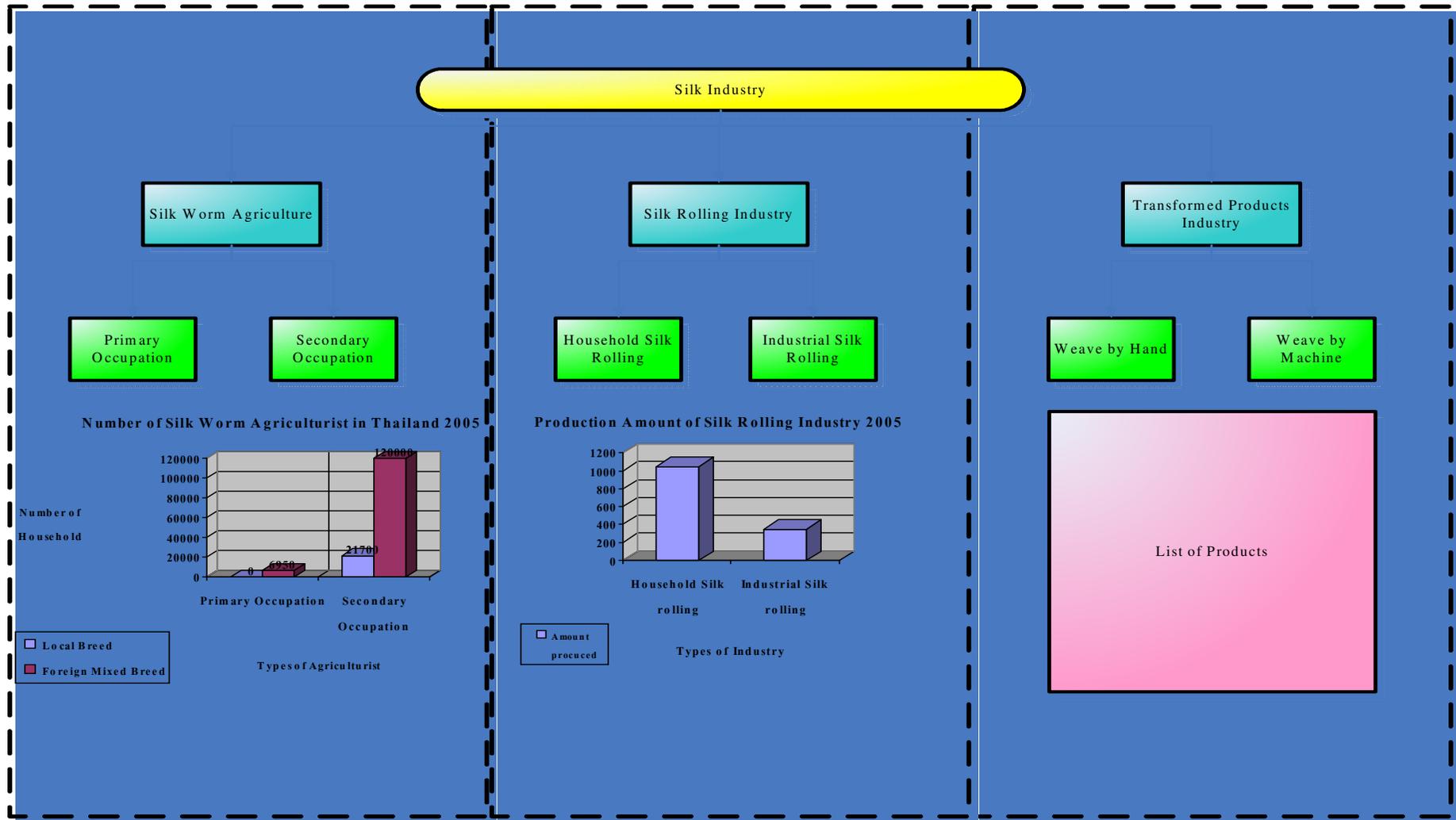
Silk Industry in Thailand has great contributions to the country not only in export, but it also helps in tourist attraction as well as preserving Thai cultural handicraft.

Thai silk has been a unique product of Thailand for a long time. Its quality, colors, and designs are well recognized among both local and foreign consumers. Thai silk is today the best known of all the country's handicrafts. The products of Thai silk are found not only in local shops but also throughout the world.

Uniqueness of Thai silk quality and production procedure has attracted tourist from all over the world to wonder the elaboration of creation of a single piece of silk or a complete transformed products into various types.

Silk is considered to be one of the royal products that have been rooted back from reign of Rama XI. They are one of the milestones in the history of Thailand in terms of development of cultural handicraft, therefore these products are worthwhile preserving it to be seen in the next generation as a historical Thai cultural handicraft.

#### **3.3.1 Silk Industrial Structure**



Source:

Figure 3- 1: Silk Industry Structure

### 3.3.2 Silk Worm Agriculture

Silk worm agriculture and Mulberry leaf plantation are parallel activities that are performed by silk agriculturist. Silk worm are raised in the environment that support the plantation of Mulberry leaf. The Mulberry leaf is the best food for silk worm to grow and reproduce. Silk worm agriculture can be classified based on the characters of the silk agriculturists into two types by performing as a primary occupation, and a secondary occupation.

#### *Primary Occupation*

As a secondary occupation, there are approximately 6,950 households of silk agriculturists who raised mostly on foreign mixed breed.

#### *Local Breed*

Based on the information, currently there is a minimum number of family which can not be classified.

#### *Foreign Mixed Breed*

Based on the information, currently there are approximately 6,950 households of silk agriculturist in Thailand.

#### *Secondary Occupation*

As a secondary occupation, there are approximately 141,700 households of silk agriculturists who raise both local breed and foreign mixed breed.

#### *Local Breed*

Based on the information, currently there are approximately 120,000 households of silk agriculturist in Thailand.

#### *Foreign Mixed Breed*

Based on the information, currently there are approximately 21,700 households of silk agriculturist in Thailand.

	<b>Local Breed</b>	<b>Foreign Mixed Breed</b>
<b>Primary Occupation (households)</b>	None / Minimum	6,950
<b>Secondary Occupation (households)</b>	21,700	120,000

Source: Color Way No.58 ,Textile Journal Vol.11,2005

**Table 3- 1: Ratio of silk worm agriculture in 2005**

The significantly different in numbers of households who are performing as both primary and secondary occupation are based on the breed itself, there are only 30 percent of local breed agriculturists due to the local breed silk worm gives low

production to the agriculturist. Most of the agriculturist moves to the foreign mixed breed in commercial.<sup>1</sup>

### 3.3.3 Silk Hauling Industry

After the silk worm agriculture has cultivated the cocoons, the cocoons are to be sold according to the weight to the silk hauling industry as an input to the industry. The output of this activities are the raw silk threads which are to be sold to local factory for transformed into finished products or export to other country. In silk hauling industry, they are classified into two types which are:

#### *Household silk hauling*

Household silk hauling is the activity performed by rural agriculturist as either their primary and secondary occupations. Simple handmade machine which are locally made from natural resources are used in hauling activities.

#### *Industrial silk hauling*

Industrial silk hauling is done in the factory at a various size. Complex machineries which are mostly imported from Japan are used in hauling activities. Industrial silk hauling activities are able to serve the mass production of silk threads especially for export and minimal for local use.

In Thailand, most of the silk threads are produced from the household silk hauling. In the year 2004 total production of silk in Thailand is 1,400 tons, the statistical measures of the products are produced for local use and exports are as followed:

	<b>Amount produced (tons)</b>
<b>Household silk hauling</b>	1,050
<b>Industrial silk hauling</b>	350

Source: Color Way No. 58, Textile Journal Vol.11,2005

**Table 3- 2: Amount of local product in 2005**

From the above table, it is obviously seen that most of the silk produced are from household hauling. The analysis to this is that most of the real silks are produced from the household silk hauling due to the demand of both export and local use in Thailand is the real silk.<sup>2</sup>

### 3.3.4 Transformed product industry

The reels of threads yarn from both industrial and household silks hauling are purchased directly form factory or suppliers or through cooperatives-society in

<sup>1</sup> Color Way, No.58,Textile Journal Vol.11,2005

<sup>2</sup> Ministry of Industrial

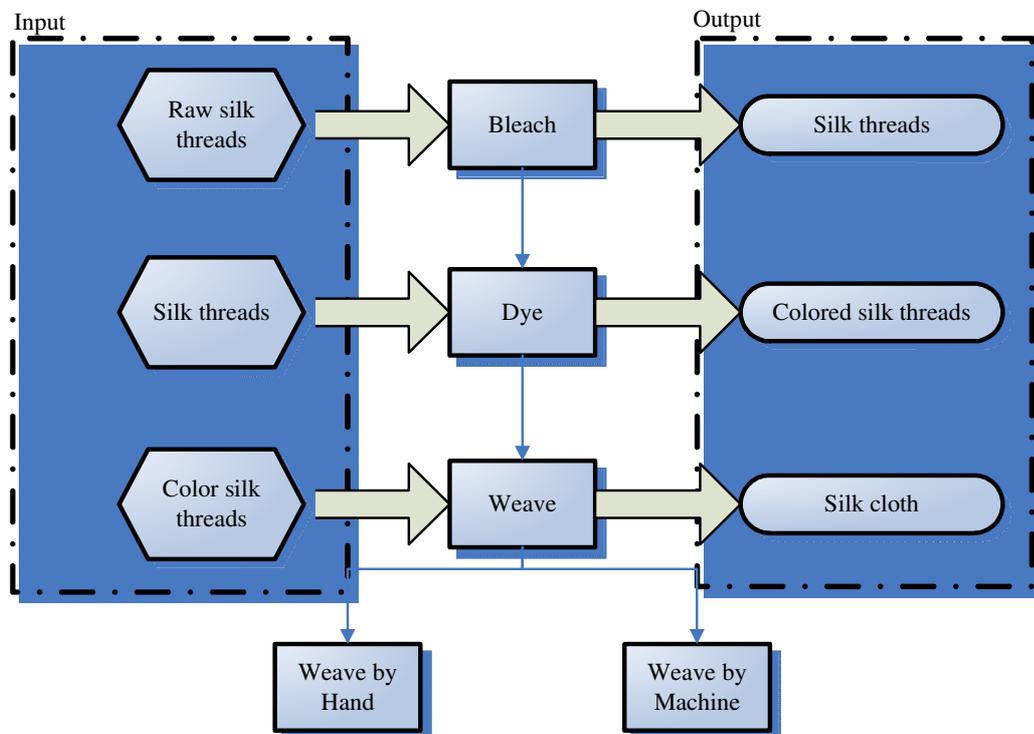
different areas. Silk agriculturist setup a cooperatives-society to prevent an unfair fluctuation in price. Before transformed into various products, there are certain processes to differentiate and value-added to change the raw silk threads into several of precious finished products. Firstly the raw silks are bleached with chemical solutions to make clean and prepare surface of the silk to be ready for dyeing process. Secondly, the paints with different colors are prepared to dye after the bleaching process. Colors are determined to serve the objectives of used to make the finished products. Thirdly, the colored silk threads are weaved to produce a sheet of silk cloth. There are two types of weaving process which are by hand as of a handicraft silk, and by machines as of an industrial silk.

**Weaving by hand**

Handicraft silk products are produced by skillful workforces by hand; the advantages of handicraft silk over the machined are the complexity of the pattern, and the unintentional tied of knots all over the sheet of silk cloth which reflects the artistic look, the price of handicraft silk cloth can be raised based on the complexity in weaving pattern. The more complex the pattern the longer time the weavers use to produce a single piece, therefore the higher price it was.

**Weaving by machine**

Industrial silk are made mainly from artificial silk threads or a mixture of real and artificial silk which is called as “Thai Juri Silk”. The machined made silk will produced a silky smooth surface of the piece. The prices of the machined made products are more likely to falls on the design of the pattern, and forms of the various transformed products made.



Source:

### **Figure 3- 2: Production transforms process**

The Value-added to this process is the design of the pattern to be weaved into the silk cloth. Therefore from silk cloth many of the cloth related products are to be transformed from the silk cloth. On the other hand, silk cloth can be sold as one of the transformed product at this point.

#### **3.3.5 Industrial Cluster**

There are approximately 161,430 rais (Thai metric unit measuring land: 600 square meter or 0.4 acre). Approximately 80 percents of the silk agriculture and Mulberry leaf plantation areas are found in the northeastern region of Thailand, the remaining groups are scattered throughout the northern, western, central, and southern region of Thailand.

#### **3.3.6 Competition**

International competition of silk are concerning mainly with the size of the market in the world. In the international competition world both price and quality of the products are taken into account. The followings are the major competitor of Thailand in silk industry:

##### ***China***

China is the major producer and exporter of the world, it capture the largest share in silk industry in the world at the amount of 70%. China is currently in the progress of producing the value-added products from silk.

##### ***India***

India is the second to the largest producer in the world and it is emphasizing on the product line such as cocoon, raw silk threads, and various silk products. Thailand is comparable to India in terms of value-added and quality of the products but not in size.

##### ***Brazil***

Brazil is third to the largest producer, Brazil capture their main export to European countries, Japan, and Korea.

##### ***Italy***

On the other hand, Italy is not the producer to the silk production but it is the largest producer of the silk transformed productions. Italy imports raw silk threads from various country and transformed them into various productions such as clothing and furniture then export to all parts of the world.

##### ***Vietnam***

Vietnam is the newcomers to the import and export country of silk industry, Vietnam use to produce silk only for local use, but now Vietnam has made a big expansion on their market to foreign country emphasizing on the export of raw silk threads, and various silk finished productions.

<b>Volume of World Silk Production</b>				
<b>Country</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>Percentage</b>
<b>Production units</b>	<b>140,652</b>	<b>137,010</b>	<b>135,361</b>	<b>100%</b>
<b>China</b>	<b>100,101</b>	<b>97,001</b>	<b>95,001</b>	<b>70.18%</b>
<b>Brazil</b>	<b>1,560</b>	<b>1,580</b>	<b>1,580</b>	<b>1.167%</b>
<b>India</b>	<b>17,341</b>	<b>17,341</b>	<b>17,341</b>	<b>12.81%</b>
Indonesia	120	120	120	0.088%
Iran	900	900	900	0.664%
Japan	391	287	220	0.162%
North Korea	200	200	200	0.14%
<b>Thailand</b>	<b>1,550</b>	<b>1,550</b>	<b>1,550</b>	<b>1.14%</b>
<b>Turkey</b>	<b>4,500</b>	<b>4,500</b>	<b>4,500</b>	<b>3.32%</b>
<b>Uzbekistan</b>	<b>1,200</b>	<b>1,200</b>	<b>1,200</b>	<b>0.88%</b>
<b>Vietnam</b>	<b>12,124</b>	<b>11,582</b>	<b>12,000</b>	<b>8.86%</b>
Others	761	895	949	0.701%

Source: Color Way No.59, Textile Journal V.11 2005

**Table 3- 3: Volume of World Silk Production**

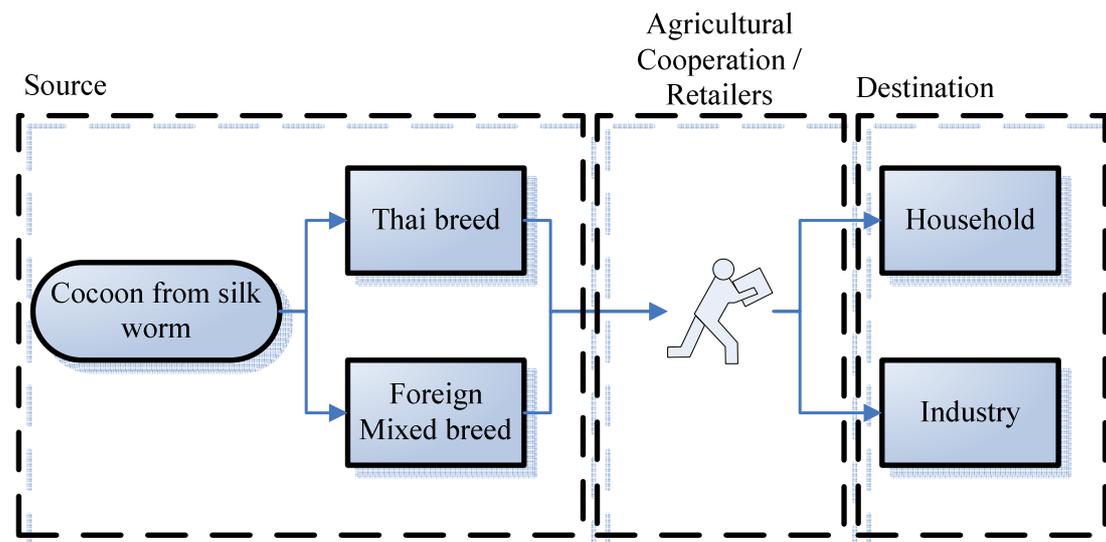
### **3.4 Market Structure and Market Channels**

#### **3.4.1 Domestic Market**

Silk market in Thailand is clustered into 3 main markets which are cocoon market, raw silk threads market, silk cloth and silk transformed finished production market. Each market is defined as followed:

##### ***Cocoon Market***

Cocoon that agriculturist sell must be from the silk worm of different breed such as Thai breed or foreign mixed breed. Agriculturist will sell those cocoons to both industrial and household silk hauling industry. The price of the cocoon is based on breed and quality of the cocoon. The silk hauling industry will process the cocoon into raw silk threads and ready to sell to the next market chain.



Source:

**Figure 3- 3: Cocoon Market Channel**

### ***Raw Silk Threads Market***

Raw silk threads which are hauled from both household and industrial hauling industry. Then the reels of silk threads will be sold to two main weaving industries.

### ***Silk Cloth and Transformed Finished Production Market***

The silk thread reels will be going through various processes starting from bleaching, dyeing and weaving process correspondingly. The silk cloth market is segmented into 2 main markets which are

#### ***Household weaving industry***

Most of the agriculturists in this segment are villagers that group themselves up. They will buy the silk thread coil and process them into silk cloth as one of the productions or transformed them into finished production and sell locally to tourist or local demand.

#### ***Industrial weaving industry***

In this segment, the weaving factory will be the major sell channel to the silk cloth market. The factory will produce the processed silk cloth or transformed finished production to middle men. The middle men will distribute the productions to retailers for selling locally or export the production to foreign countries.

### **3.4.2 Foreign Market**

Due to the expansion of the world silk market, silk has been promoted to be the precious productions within many country such as USA, and European countries. Therefore the rising of demand pushes supplier countries to produce more to serve the

increasing of demand. Similar to domestic market, the foreign markets which emphasize on export are clustered into 3 main market channels.

### ***Cocoon Market***

Since Thailand does not have that much agricultural silk farm, so the cocoon market is not the market that Thailand is focusing on. In opposite, Thailand has imported cocoon for raw silk threads production from China, India, and Vietnam as well

### ***Raw Silk Threads Market***

Part of the domestic productions that has been produced from the cocoon market has been used to make the raw silk threads to be sold to foreign countries especially Japan, and Italy due to the demand of quality real silk in these two countries are high and quite source selective.

### ***Silk Cloth and Transformed Finished Production Market***

Export of silk cloth and transformed finished production in Thailand is not significantly high due to the producer in Thailand are more focused in selling this productions to tourist locally. Designs of the transformed productions in Thailand are not advance as in Italy and Japan, so the competition in fashion market is not suitable for Thailand currently.

## **3.5 Contribution of Silk Industry to Thailand**

### **3.5.1 GDP**

As referred to Table 3-4 the textile industry is a major contributor to the Thai economy, accounting for approximately 17 percent of total GDP as segmented to silk industry has a contribution of 2 percent of total GDP out of 17 percent.

### **3.5.2 Employment**

Textile is the largest manufacturing industry in Thailand, with more than 4,500 factory employing more than one million people. As in the silk industry, approximately around 200,000 people are involved in this business that grant silk agriculture as their primary and secondary occupations.

## **3.6 Environmental factors regards to Thai Silk Industry**

### **3.6.1 Economic Overview of Thai Silk Industry**

Thailand has strong traditions for high-quality fabrics such as Thai silk. Today, the industry has an important contributing role to the country's economy, accounting for approximately 2 percent of total GDP.

Demands for silk thread in the domestic market are at 1,000 tones a year. It is likely to increase by 10 percent each year. On the other hand the silk thread

productions in the country are at 540 tones a year. Therefore the demand for silk thread is much more the supply approximately 560 tones each year. This is the fact that Thailand needs to import approximately 1,000 million baht in silk thread every year. So the Office of the Board of Investment (BOI) has granted promotional privileges to silk thread producers since 1987. There are a gradually increasing number of silk companies today, many of them are in or around Bangkok, but the Northeastern region is still the main center of production in Thailand. Thai agriculturists in 24 provinces, mainly in the Northeast, are engaged in silk industry in terms of production and wholesale to Bangkok.

### **3.6.2 Technical Advantages regards to Thai Silk Industry**

Technology has been brought into production of Thai silk industry to meet the uprising demand of the market both in terms of production qualitative and quantitative wise as well as time reduction. Most of the machines are imported from Japan, China, and Thailand. Thus, most of the productions that require machinery are not selling the production at the handicraft level; they rather export their mass production to foreign country demand.

### **3.6.3 Regulatory**

Since silk is considered as the royal productions that are conserved and has taken into account of kings and queen. There are many sectors, both public and private sectors, involves in Thai Silk Industry, each sector has cooperate to maintain the growth and success of silk industry in Thailand. They are distinguished in task and responsibility as followed:

#### **3.6.3.1 Public Sectors**

- a. *Ministry of Agriculture and Cooperative (MOAC)* is the main sector who responsible for research and development in the areas concerning production and agriculture of silk. It also responsible in development of direct production and transform production of silk. In terms of business and marketing, Ministry of Agriculture and Cooperative also has an important role in market linkage and development of human resource of silk agriculture. With all resources as followed, Ministry of Agriculture and Cooperative acted as the core driving sectors to Thai Silk industry:
  - i. *Department of Agriculture (DOA)* – is responsible for conducting research and development to silk agriculture as well as direct and transformed production of silk, production analysis and act as public library to Thai agricultural bodies.
  - ii. *Department of Agriculture Extension (DOAE)* – supporting career of Thai agriculturist and integrate technology to production and management of silk industry, give advice to Thai agriculturist.
  - iii. *Cooperative Promotion Department (CPD)* – support market linkage between Thai agriculturist and cooperatives

- iv. *Office of Agricultural Economics (OAE)* – support strategically silk industry and conduct research on economic, production, and marketing concerning silk industry
- v. *National Bureau of Agricultural Commodity and Food Standards (ACFS)* – support quality assurance of silk
- vi. *King Agricultural Museum* – venue for exhibition of Thai silk production for conservation and exhibit fashion design of Thai silk
- b. *Ministry of Industry (MOI)* – industrial production development and support integration of tools and equipment in production and transforming silk
- c. *Ministry of Commerce (MOC)* – monitor agricultural trade policy trading policy in both local and foreign, copyrights-productions and local know-how. Ministry of Commerce also promotes and expands trading route and market to the silk productions.
- d. *Ministry of Finance (MOF)* – regulate and control export and import tariff, and prevents fraud import of raw material and finished production as well as find supporting capital for Thai agriculturist.
- e. *Ministry of Education (MOE)* – initialized institutes concerning with courses that support a specialist in silk
- f. *Ministry of Culture (MOCulture)* – established and encourages Thais to use silk which is the productions of Thailand and reveal the point of silks as the treasure of Thailand that has to be conserved.<sup>3</sup>

### 3.6.3.2 Private Sectors

- a. *Thai Silk Association* – Promote the production and trade of silk through such joint undertakings as cooperation with relevant government agencies, exchange of knowledge and technical information among members, and maintenance of standards and improvement of quality.
- b. *Multinational Association* – supports technology in development of productions and careers
- c. *Domestic Agriculture Committee* – is the Thai agriculturist who do perform well in silk industry and ready to share knowledge in terms of management and production
- d. *National Silk Committee* – regulate and monitor issues concerning silk industry by having vice-prime minister and deputy of prime minister as a committee and secretary

---

<sup>3</sup> Research on Cost of Production, Kasetsart University, 2003

### **3.7 Economic Trend of Thai Silk in Thailand**

Based on the information from the Textile Information Center, Thailand Textile Institute, it shows that Thai silk exports bring in money to the country over 1,000 million baht a year. The earnings are expected to be unstable. Firstly, it is because a major competitor especially China, are cutting their exports, while demand for silk productions are on the rise in major markets. China will be more focused on the production of more garments for exports and reduce its silk thread exports. This will advantage Thailand who relies partially on export of silk productions. Secondly, Vietnam who used to be the domestic consumption only type, they start producing their own silk. They start with import silk thread to supply its silk industry. It is likely to emerge as one of Thailand's major competitors for silk exports in the future. This will certainly affect Thai's export of Thai silk if there is no integration of productions in Thailand.

Thailand exported 13.4 and 12.3 million baht of silk productions both in garment and woven fabric respectively in the year 2005 (Jan – Oct.), a decrease of 6.9 percent over the previous year for garment production and an increase of 4.2 percent over the previous year for woven fabric. Looking back in the past five years in the year 2000, the value was likely to increase, especially that of hand-woven cloth, which was gaining more popularity in Japan, the United States, the European Union, the Middle East, Australia, Canada, Singapore, and Malaysia. This provided a good opportunity for Thai exporters to increase their exports. Japan, the largest of Thai silk importer, has cut its silk production because of high production costs. The country has turned to importing more silk productions from Thailand because they satisfy the taste and demand of Japanese consumers. The United States, Thailand's second largest market for silk productions, prefers silk productions from Asia to those from other regions.

Vietnam has established themselves to be one of the major importer of woven fabric from Thailand, since Vietnam officially enters the global silk industry and making silk one of their main productions that generate money to their country, they have done a good work in doing so.

TEM	Growth (%)	2005	2004	Growth (%)	2004	2003	2002
	Jan.-Oct. 05/04	(Jan.-Oct.)	(Jan.-Oct.)	04 / 03			
<b>Textile</b> <i>(Code 301000000)</i>	<b>5.2</b>	<b>5,553.8</b>	<b>5,279.8</b>	<b>17.1</b>	<b>6,399.9</b>	<b>5,466.8</b>	<b>5,142.6</b>
<b>1. Articles of apparel and clothing accessories</b>	<b>2.2</b>	<b>2,870.6</b>	<b>2,807.5</b>	<b>12.5</b>	<b>3,397.3</b>	<b>3,019.1</b>	<b>2,979.1</b>
<b>1.1 Garment</b>	<b>2.0</b>	<b>2,607.3</b>	<b>2,555.8</b>	<b>12.0</b>	<b>3,092.6</b>	<b>2,761.8</b>	<b>2,721.5</b>
1.1.1 Garment : cotton	<b>10.3</b>	1,273.3	1,154.7	<b>17.0</b>	1,426.6	1,219.6	1,198.7
1.1.2 Garment : man-made fiber	<b>-4.3</b>	611.9	639.7	<b>6.0</b>	759.9	717.1	668.9
1.1.3 Garment : silk or silk waste	-6.9	13.4	14.4	27.6	16.2	12.7	10.1
1.1.4 Garment : wool or fine animal hair	<b>-38.3</b>	52.2	84.6	<b>21.6</b>	92.8	76.3	83.7
1.1.5 Garment : other textile material	<b>0.4</b>	450.9	449.3	<b>18.7</b>	540.6	455.6	424.1
1.1.6 Babies garments	<b>-3.5</b>	205.6	213.1	<b>-8.5</b>	256.5	280.4	336.1
<b>1.2 Brassieres,corsets,and parts there of</b>	<b>8.7</b>	<b>204.7</b>	<b>188.3</b>	<b>21.4</b>	<b>227.9</b>	<b>187.7</b>	<b>190.0</b>
<b>1.3 Panty hose,tights,stockings sooks</b>	<b>-5.8</b>	<b>50.8</b>	<b>53.9</b>	<b>12.6</b>	<b>65.4</b>	<b>58.1</b>	<b>56.1</b>
<b>1.4 Gloves</b>	<b>-17.9</b>	<b>7.8</b>	<b>9.5</b>	<b>0.0</b>	<b>11.4</b>	<b>11.4</b>	<b>11.5</b>
<b>2. Woven fabrics and yarn</b>	<b>7.7</b>	<b>1,525.7</b>	<b>1,416.1</b>	<b>21.2</b>	<b>1,714.4</b>	<b>1,414.5</b>	<b>1,268.9</b>
<b>2.1 Woven fabric</b>	<b>5.4</b>	<b>892.4</b>	<b>846.3</b>	<b>18.3</b>	<b>1,034.9</b>	<b>874.7</b>	<b>804.0</b>

2.1.1 Woven fabric : cotton	<b>2.7</b>	322.9	314.5	<b>20.6</b>	386.8	320.6	285.4
2.1.2 Woven fabric : man made fiber	<b>7.4</b>	496.8	462.4	<b>17.2</b>	565.0	482.0	451.1
2.1.3 Woven fabric : silk or silk waste	<b>4.2</b>	12.3	11.8	<b>13.8</b>	14.0	12.3	13.0
2.1.4 Woven fabric : other textile material	<b>5.0</b>	60.4	57.5	<b>15.6</b>	69.1	59.8	54.6
<b>2.2 Yarn and man-made filament</b>	<b>11.1</b>	<b>633.3</b>	<b>569.9</b>	<b>25.9</b>	<b>679.5</b>	<b>539.8</b>	<b>464.9</b>
2.2.1 Cotton yarn	<b>10.3</b>	123.5	112.0	<b>9.0</b>	133.3	122.3	95.0
2.2.2 Man-made filament yarn	<b>11.4</b>	509.8	457.8	<b>30.8</b>	546.2	417.5	369.9
<b>3. Household textile</b>	<b>7.9</b>	<b>200.3</b>	<b>185.6</b>	<b>24.9</b>	<b>227.6</b>	<b>182.2</b>	<b>152.7</b>
<b>4. Man-made filament and staple fibers</b>	<b>6.3</b>	<b>369.2</b>	<b>347.3</b>	<b>42.4</b>	<b>415.6</b>	<b>291.8</b>	<b>247.1</b>
<b>5. Embroidery and lace</b>	<b>15.3</b>	<b>95.1</b>	<b>82.5</b>	<b>-4.9</b>	<b>102.9</b>	<b>108.2</b>	<b>94.4</b>
<b>6. Fishing nets</b>	<b>16.0</b>	<b>54.4</b>	<b>46.9</b>	<b>3.2</b>	<b>56.5</b>	<b>54.8</b>	<b>52.3</b>
<b>7. Shawls,scarves,mufflers,viels</b>	<b>-10.7</b>	<b>6.7</b>	<b>7.5</b>	<b>-2.0</b>	<b>8.8</b>	<b>9.0</b>	<b>6.5</b>
<b>8. Other made up articles,dress patterns</b>	<b>2.0</b>	<b>36.0</b>	<b>35.3</b>	<b>43.5</b>	<b>49.8</b>	<b>34.7</b>	<b>32.7</b>

Source: Information and Communication Technology Center with Cooperation of the Customs Department

**Table 3- 4: Thai Textile and Clothing Export Jan – October 2005**

### **3.7.1 Present Situation of Thai Silk Industry in Thailand**

The present situations of Thai silk industry in Thailand are quite supporting to investment from foreign country and expansion of domestic business investor due to supports of both public and private sectors.

#### ***Investment***

Local and foreign investments in Thai silk industry in Thailand are quite promising to the point of view of both domestic and foreign investors. The rising of investment in this area are analyzed into three major factors and great support from both public and private sector. Firstly, the quality of fabrics are generally high, especially the quality of Thai silk. Secondly, Thais skilled workforces are very beneficial in creation of various productions, which are experienced in producing garments requiring complex constructions or detailed sewing. Thirdly, the continuous education of Thai designers helps to ensure a high level of design all the way around.

Especially in the year 2004-2005, Thailand has promoted Bangkok as the “Bangkok Fashion City”. This project supports further development of a skilled workforces and the education of designers in both interests and encouraging.

The well-known existing level of high quality fabrics and the development of Bangkok into a regional and world fashion city make the Thai market interesting for foreign textile companies to invest in production facility in Thailand. With the quality set on the benchmark, the labor costs in Thailand are relatively cheap and foreign companies can benefit from the good quality of the skilled workforces. It is easy and cheap to get clothes sewed and designed in Thailand.

Although a number of quality enhancing initiatives have been implanting in the Thai fashion industry, but to be sold more widely in the international market, there are several areas were specialized technology and expertise is required. Investors are taking this as an advantage to joint venture with Thais’ firm or buy franchise of Thai company and invest their business with specialized technology and mass manufacturing them with preserving the charm of beauty of handicraft Thai silk. Some of the most important are: State-of-the-art printing technology, advanced dyeing and finishing technology, R&D activities and technology for fibers and textiles, and supply chain management technology and expertise in fashion branding and marketing.

#### ***Human Resource***

Mainly silk industry based on selling of handicraft productions therefore creation or production of silk is based directly on human resources. Though the new evolution of silk are partially produced on machine but main stream of attractiveness to silk is still the handicraft silk. Human resources are labored only as a producer; more educated or skilled human resources are hired as designers which machines are not capable of. And human resources are also used to weave the more sophisticated pattern which is the limitation of the machine.

The Thai fashion industry as well as silk industry has been heavily promoted within the last couple of years. The strategy is focused on educating people and seeking secured jobs for people in this industry. It involves the improvement of the overall quality of design, marketing and manufacturing. Based on the information from Thai Silk Association, government has been inviting foreign institutions of design to establish universities in Thailand for educating people, and the result is that a fashion school run by the Italian “Academia Italiana Design Institute” is already present in Bangkok and the New York based “Fashion Institute of Technology” has expressed interest in establishing a fashion university in Thailand

### ***Raw Material***

Thailand is able to produce only certain amounts of raw silk threads to be supplied locally and export. The yearly production of raw silk threads are not enough to serve the increment of demand in the market as of the era of fashion oriented society nowadays. From the information, this year Thailand has imported raw silk threads from two major countries in raw silk threads production such as China, India, and Vietnam at the total value of 3.8 Million US Dollars.

### ***Production***

Productions of Thai silk in Thailand are classified into three consecutive processes. Firstly the cocoon are raised in the suitable environment, mostly the cocoon can be raised in all region of Thailand. After the cocoons are matured enough to be cultivated, Thai agriculturist collect the cocoon and draw out the silk threads from it by using either traditional machine or industrial machine. The silk threads are dyed into different color according to the types of finished productions to be made. The silk threads are then transformed into many productions such as silk cloth by weaving. Similar to drawing process, the weaving process can be done by handicraft methods or by machinery. Handicraft weaving will takes a longer time and will be able to produce a more complex pattern of the silk cloth where as the less time consuming and smoothness will be obtained from weaving on the machinery side.

### ***Marketing***

The Thai silk industry is pursuing high quality, value-added strategy to succeed in the competitive situations. The quality of the silk in Thailand is generally high and continuously improving. The silk has been accepted in its quality and Thailand is particularly strong in design and innovation of silk.

The government-sponsored programs to advance the Thai fashion industry beyond OEM-based production to higher value-added design and brand development work through the Federal Trade Agreement

Federal Trade Area – Thailand has signed Federal Trade Agreement to open the silk market with various associations. The agreements to each association are as followed:

1. WTO – open trade of agricultural silk threads as in increment of volume in sales for each year
2. AFTA – 20% tax for the import of cocoon, and agricultural silk threads

3. Thai – Chinese Free Trade Area – liberate import of silk threads and negotiable condition of importing silk threads from China

Thai government has worked through several projects and work programs to achieve Thailand as a competitive country. The objective is to ease the trade and investment, as well as to promote sustainable growth in the silk industry as well as other textile industry. Most of big Thai silk companies have begun to focus on better production and marketing, as well as searching for new markets, with continual efforts to penetrate these new segments.

### **3.8 Industry Evolution Analysis**

#### **3.8.1 Productions development**

There are two research projects being conduct on Thai silk. The first project involves the use of silk fiber to produce artificial creations such as silk-fiber flowers. The project is designed to raise agriculturists' income. The second project involves the production of silk powder for use as an ingredient in cosmetics. This project has been undertaken jointly with Japanese experts. It is also aimed at enabling Thai agriculturists to sell their silk at a higher price. If the two projects are successful, they will lead to more Thai silk production and exports. This will help develop Thailand into a world silk center in the future.

Another project that looks promising is the “Mai Thong” project. Recently, the global silk industry was amazed by Thailand’s development of mai thong silk. The silk has fine, golden, glossy, and very soft threads; therefore it is named as mai thong, or golden silk. The development of mai thong silk is a great success for the Thai silk industry. As a result, Thai silk productions receive more recognition from agriculturists, entrepreneurs, importers, exporters, and consumers. And with its exceptional quality, the innovation of mai thong silk also helps reduce imports of silk thread from foreign countries, such as China, which accounts for 300-400 million baht a year.

#### **3.8.2 Business Development**

Evolution concerning the sale, the silk and its productions trading inside and outside the country was high demand, the target customers were in the foreign countries and in Bangkok. The fast and effective way to send the productions was sending via the electronic commerce (e-commerce).

Production, for example, must be art designing and forms of productions designing. The development of art design must be planned.

### **3.9 Silk Industry Forecasting**

As referring to the Table 3-4 in the first ten months of 2005 the textile industry earned export revenue of 186 billion Baht an increase of 15 percent compared to the same period in 2004. Thai Silk Association is expect the industry to grow continuously if most of the producers in Thailand improve their production quality in order to meet the requirements of the international market in both design and quality.

### 3.10 Linkage Industry Analysis

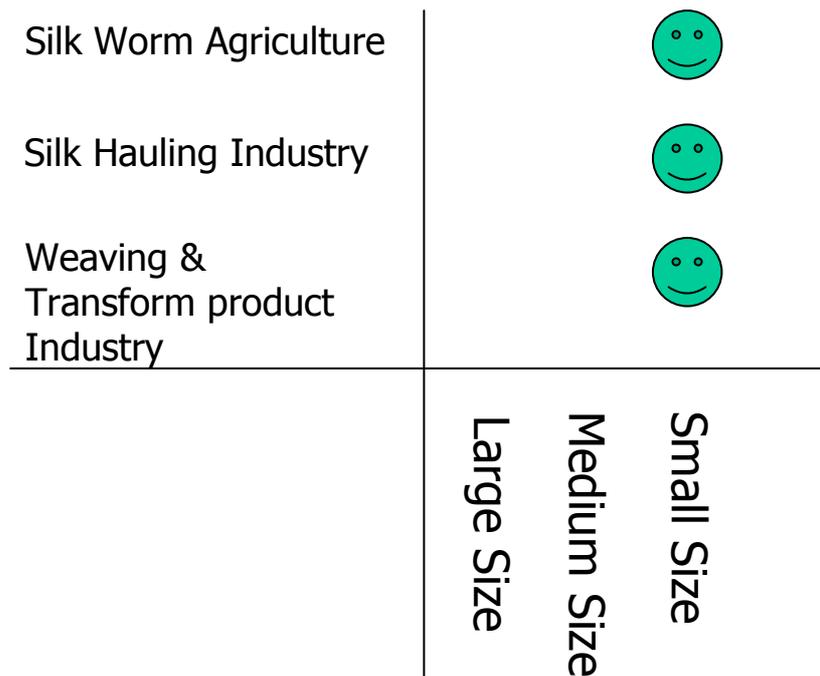
#### 3.10.1 Tourism

Silk industry in Thailand is mostly based on sales to tourists; therefore tourism in Thailand has brought great advantages to silk industry. Most of the sales of Thai silk productions are locally sold to tourists. Most of the tourist will visit the showroom and buy the production as a souvenir that represents Thailand.

#### 3.10.2 OTOP

The OTOP project has its aim to promote rural area people to promote their production to the bigger market locally as well as globally. Government has been doing their part in supporting and advertising the project to create market in and out of Thailand. OTOP has reflected the ability of Thai agriculturist and reveal the capability in producing a quality piece of work to be sold to the world.

### 3.11 Industry Positioning: Jolie Femme



Source: Industry Analysis

**Figure 3- 4: Vertical and Horizontal Indication**

From vertical indication which is defined as industry cluster; there are three clusters in this industry which are Silk Worm Agriculture, Silk Hauling Industry, Weaving and Transformed Product Industry. On the horizontal indication which is defined as industry classification; the industry are classified into three level as large, medium, and small.

Jolie Femme is classified in a small size company type, and is listed in all cluster of a company. Companies as Jolie Femme are called as “self-contained” company which does all functions in the industry.

### **3.12 SWOT Analysis**

#### **Strength**

- Thai handicraft silk has been accepted throughout the world and locally as in its quality and charm.
- Thai silk has continuously reflects the value of Thai traditional culture, silk has bought fame to Thailand on its uniqueness of production and quality. So Thai silk became one of the symbols of interest of visiting Thailand, so the tourists from all around the world will like to obtain or at least take a look at Thai silk.
- Thai silk is a type of productions that are high in value because it is the handicraft production.

#### **Weakness**

- Silk productions are not standardized due to it is the handicraft productions.
- Usage of silk production in daily life is inconvenient due to the properties of the productions color, pattern, and clothing itself.
- Silk production are considered as a production that has complication in maintenance especially handicraft silk production, because most of the foreigner lifestyle was to do laundry by washing machine.
- Production are mainly based on household production, the productions are not enough to serve the demand because the productions are handicraft.
- Technology and machinery have not been used in production of Thai silk
- Most of the agriculturist or the Thai silk producer are lacking of money to do the research and development of Thai silk. Government support has not fully penetrated to the outer region as much.
- Acknowledgement of local and foreign market demand has not penetrate to the outer region as much

#### **Opportunity**

- Thai silk is produced from the natural resource which has environmental friendly production process therefore market channels are continuously expanding because it has continuously gain support from government
- Foreign country has a continuous stream of demand to Thai silk regarding the quality of production and its beauty.
- Government has supported the project “Bangkok the Fashion City”, and the trend of fashion in Thailand are popular nowadays.
- Foreigner are always looking for a unique productions in terms of fashion, Thai silk has the uniqueness and charm in itself to serve this market.

## **Threats**

- Since Thai silk is the luxury, and unique productions, it has threat from substitute productions such as cotton which is the main market share of the textile industry
- All the FTA (e.g. Thai-Chinese, Thai-India) that concerns reduction of import tax might induce manufacturer to import both raw silk threads, and finished silk clothes from foreign countries instead of using local production.
- Nowadays many countries in the world have developed many kinds of productions to serve the uprising demand of the market in terms of price, and quality. Therefore traditional thought of Thai silk Production will have a hard time competing with the world.

## **3.13 Conclusion and Recommendations**

### **3.13.1 Conclusion**

World competition in textile industry has becoming more intense day by day, and many countries in the world have been delivering many kinds of productions to serve the uprising demand of the market in terms of price, and quality. In order to compete with the global unit, Thai silk industry must have further development program that is seriously put into practices and a great cooperation from all the business line that are involved in this industry.

Silk industry in Thailand has been supported from many public and private organizations in terms of supporting to make sales locally and abroad. It has a contribution to Thailand GDP of 2 percents, and served the employment of more than two hundred thousand positions in Thailand. But Thailand should be aware of the unstable market and penetration from the competitor such as China. China is the main exporter of raw silk threads, but China will now be more focused on the production of value added garment for export and reduce its raw silk threads export. If China is successful in doing while Thailand still sits and wait, there will be a very large impact on the side of export of productions.

With the supportive and preservative mind of Thai people, Thai silk industry is quite promising to grow. There are projects run by Queen Sirikit, government, as well as private sectors to integrate Thai silk industry in terms of value added, and design. The only channel of competition for silk industry for Thailand today is the value added and design.

### **3.13.2 Recommendation**

- The silk agriculturist across the country should change the purpose of weaving from a supplementary occupation to a major industry that can supply the global demand.
- This change aims to promote Thailand as the tropical center of silk production. Mai thong silk is expected to be a crucial key in developing Thailand's fashion industry, which has responded well to the government's Bangkok Fashion City Project.

- Government should support on production of machinery that concern production of silk industry to substitute the import of costly machinery from Japan.
- Research and development on silk should be more concern on technology of production as well as design and value added to productions. Nowadays there are some research and development done on the agriculture of silk at Kasetsart University as well as Office of Agricultural Economics (OAE) but there is no significant finding of research and development on design of silk productions.
- Thailand should not base its sale channel on tourists alone, because number of tourists to Thailand is not stable each year and there are some uncontrollable of external factors such as Tsunami that will draw away the tourists to Thailand.

## APPENDIX

### APPENDIX 3-A: Entity Analysis: Jolie Femme

Jolie Femme is one of the self contained companies in Thailand who is clustered as in a small size company which has a full industrial line of production of silk starting from scratch. The company has its own sericulture farm which comprise of raising cocoon, agriculture, hauling, dying, weaving, tailoring, and finally marketing and selling its finished production to both Thai and foreign customers.

---

#### Industry analysis

*Jolie Femme, one of the success producer of silk in the Thailand silk industry is studied as a prototype of this Individual Studies. Therefore the group will focus mainly on the side of handicraft silk which is made from the agricultural silk threads.*

#### **Silk Industry (global)**

*From the information gathered from Jolie Femme, their main customers are more from European countries than the United States. And most of the agricultural silk threads are imported from China. The designs of clothing are adapt from Italy and France. Most of the customers of Jolie Femme are from foreign countries and basically from the tour groups.*

#### **Silk Industry in Thailand**

*As of Jolie Femme, the company also believes that the Thai Silk Industry in Thailand will last for a long time since they are the royal production and uniqueness of Thailand which should be preserved. Silk become a tourist attraction. According to Jolie Femme, most of the customers are the foreigners who are traveled with the tour agency.*

#### **Present Situation of Thai Silk Industry in Thailand**

##### **Investment**

*As in the point of Jolie Femme, the company reflects the investment to Thai silk industry in an opposing approach; the company mentions the downward trend of silk industry in Thailand due to the fall of tourism. Jolie Femme based its business too much on the tourism and maintains their business. There is no big investment or any value-added strategies used by Jolie Femme. In order to be market according to the trend, Jolie Femme must go out and catch for the opportunities that Thai's public and private sector has created such as "Bangkok Fashion City".*

##### **Human Resource**

*In the point of view of Jolie Femme, Human resources are most necessities to the company. According to the strategies of Jolie Femme, the company exhibit the production process of the silk, the exhibition reflects the patients and complication of producing a single inch of the silk, this will be the value added to the silk. Even though Jolie Femme knows that educating people / designers is very significant to their business, they still did not promote studies to their designers due to fear of losing the turnover to other company.*

**Raw Material**

At the point of Jolie Femme, Jolie Femme has its own source of raw silk threads locally, most of the raw silk threads are sourced within the northern region of Thailand. In case that the raw silk threads shortage in Thailand, Jolie Femme will be importing the raw silk threads mostly from China through the importing agencies that deal directly to China source of raw silk threads.

**Production**

As of Jolie Femme, the production process of silk is the most attractive selling point of the company. Jolie Femme has set up an exhibition of production process in the area next to the showroom where tourists can visit and looking at the complication in producing a single piece of the silk cloth. This is how handicraft productions can be sold at a higher price.

**Marketing**

As in the point of Jolie Femme, the company is still maintaining its strategies of sustainable economic while the other company is searching for a wider prospect customer rather than what Jolie Femme is maintaining on the target customer based on tourists.

**Finance**

As in the point of Jolie Femme, the company earns most of the revenue from the tourist support, so from the past years the growth of the company is at the sustainable level. Therefore the country-wise growth of the garment industry as well as silk industry is not directly affect Jolie Femme because, the company and the country is likely to walk on the different route.

**Environmental factors regards to Thai Silk Industry*****Economic Overview of Thai Silk Industry***

As in the point of Jolie Femme, the company is located in the northern region of Thailand which is not the main center of production of silk but the advantages of the company is that the northern region of Thailand especially Chiang Mai is the region of tourist attraction.

***Politic Advantages regards to Thai Silk Industry***

In the point of view of Jolie Femme, the company thought that they had received less impact from the Political Advantages especially from the public sector. Actually they did not know that they have received such impacts indirectly from the public sector. Based on information from Thai Silk Association, Jolie Femme is one of the members in Thai Silk Association but Jolie Femme seems to have less contribution to the associations. Jolie Femme has not even gone to exhibition because they fear that the silk will be damaged on transportation.

***Technical Advantages regards to Thai Silk Industry***

In the point of Jolie Femme, machinery are used least because selling target of Jolie Femme is mostly foreigner, so their strategies of attraction to customer is through the uniqueness of production in the traditional way.

**Industry Evolution Analysis**

*For Jolie Femme, there is no such a significant development in both production and business, Jolie Femme just want to sustain their business and earns only from tourist, permanent customers, and the customer from the word of mount from permanent customers. Jolie Femme doesn't have R&D internally, the company just bought the existing development from wholesalers and produce one of their own, for example the "Mai Thong", Jolie Femme bought some of the mai thong silk threads and produce their own silk cloth for sell.*

**REFERENCES:**

- Color Way, Number 58, *Textile Journal Vol.11, 2005*
- Color Way, Number 59, *Textile Journal Vol.11, 2005*
- Office of Agricultural Economics, *Master Plan on Thai silk*
- *Research on Cost of Production, Kasetsart University*
- [www.moi.go.th](http://www.moi.go.th), *Ministry of Industrial*
- [www.boi.go.th](http://www.boi.go.th), *Board of Investment,*
- Thai Textile Statistic, *Textile Industry Division, Bureau of Industrial Sectors Development (BISD)*