The Alternative Strategy For Strengthening Indonesian Textile and Clothing Industry Structure

ALLA ASMARA¹, YETI L. PURNAMADEWI¹, SRI MULATSIH¹, TANTI NOVIANTI¹

¹ *Department of Economics Science, Faculty of Economics and Management, IPB, Bogor 40123, Indonesia*

Email correspondence: allasmara@yahoo.com, yetilispurnama@yahoo.com, mulatsupardi@yahoo.co.id, tantinovinati@yahoo.com

Abstract

Indonesian textile and clothing industry (TPT) is an industry most affected by markets dynamics growing (domestic and international). Strengthen the industrial sector is important aspects to guarantee the existence of Indonesian TPT industry. The purposes of this study are: (1) analyze the internal factors (strengths and weaknesses) of Indonesian TPT industry, (2) analyze the external factors (opportunities and threats) of Indonesian TPT industry, (3) formulate the alternative strategies to strengthen the Indonesian TPT industry, and (4) formulate the priority strategies to strengthen the Indonesian TPT industry structure. SWOT and QSPM method used to answer the research objectives. The study results indicate that raw material is key factor for strengthening Indonesian TPT industry structure. Other key factors are human resource, infrastructure, market/marketing, product, production process, strategy/policy, and financial. On the internal side, the main strength is a variety of raw material alternative sources, while the main weakness is not always able to guarantee the raw material quantity, quality, and continuity. On the external side, international market product price tends to increase considered as major opportunity. Meanwhile, the main threat is in the high level of competition in domestic/international market. According to internal and external conditions, the position of Indonesian TPT industry in SWOT quadrant is in quadrant II, has strength but facing threat.

Key words: external factor, internal factor, strengthening strategy, textile and clothing industry

Strategi Alternatif Untuk Memperkuat Tekstil Indonesia dan Struktur Industri Pakaian

Abstrak

Tekstil Indonesia dan industri pakaian (TPT) merupakan industri yang paling terpengaruh oleh pasar dinamika yang berkembang (domestik dan internasional). Memperkuat sektor industri aspek penting untuk menjamin keberadaan industri TPT Indonesia. Tujuan dari penelitian ini adalah: (1) menganalisis faktor internal (kekuatan dan kelemahan) industri TPT Indonesia, (2) menganalisis faktor-faktor eksternal (peluang dan ancaman) industri TPT Indonesia, (3) merumuskan strategi alternatif untuk memperkuat industri TPT Indonesia, dan (4) merumuskan strategi prioritas untuk memperkuat struktur industri TPT Indonesia. SWOT dan metode QSPM digunakan untuk menjawab tujuan penelitian. Hasil penelitian menunjukkan bahwa bahan baku merupakan faktor kunci untuk memperkuat struktur industri TPT Indonesia. Faktor penting lainnya adalah sumber daya manusia, infrastruktur, pasar / pemasaran, produk, proses produksi, strategi / kebijakan, dan keuangan. Di sisi internal, kekuatan utama adalah berbagai alternatif sumber bahan baku, sedangkan kelemahan utama tidak selalu dapat menjamin kuantitas bahan baku, kualitas, dan kontinuitas. Di sisi eksternal, harga produk pasar internasional cenderung meningkat dianggap sebagai peluang besar. Sementara itu, ancaman utama adalah di tingkat kompetisi yang tinggi di / pasar internasional domestik. Sesuai dengan kondisi internal dan eksternal, posisi industri TPT Indonesia di SWOT kuadran berada pada kuadran II, memiliki kekuatan tapi menghadapi ancaman.

Kata kunci: faktor eksternal, faktor internal, memperkuat strategi, industri tekstil dan pakaian.

INTRODUCTION

Globalization has pushed the market dynamics of the industry products becoming increasingly competitive. Indonesian textiles and textile products industry (TPT) is one of the industries most affected by the dynamics of the market (domestic and international) that are growing. The textile products from other countries, particularly China, increase the competition in domestic market. Meanwhile, in the international market competition is also likely to increase. Moreover, in Europe, competition between the textile industries referred to as a very intense international competition (Bilalis et al, 2006). Asmara et al. (2013a) revealed that in the map of world trade in the last five years (2008-2012), China is a major exporter of products that tend to dominate the world textile market. The same thing also expressed by MacDonald, et al. (2004). Beside China, other Asian countries that also have become the exporter of textile products are: South Korea, Hong Kong, Japan, and India.

The importance of the textile industry sector in the Indonesian economy is indicated by the industry's contribution in the formation of GDP, employment and foreign exchange (Asmara et al, 2013a). Besides its role in national economy growth, the textile industry is also focused to meet the needs of national clothing (Ministry of Industry, 2013). The critical role of the textile industry in the economy is also found in many countries such as China (Anonymous, 2005), Bangladesh (Khan et.al, 2008; Ahmed, 2013) and Vietnam (Kenta, 2007). Thus, it becomes very natural that every country seeks to continuously improve the competitiveness of their textile industry, including Indonesia.

On the other side, Hermawan (2011) reveals that the market dynamics of the textile industry products not only can be an opportunity for Indonesian textile industry, but also it can be a threat. The intense competition between the countries in the world textile producers, such as China, India, the United States and the European Union is a threat to the Indonesian textile industry. Issues of non-tariff barrier, such as transshipment and dumping, also influence the penetration flow of textile trade from developing countries to developed countries.

Meanwhile, Firdaus (2007) revealed that the strength of the competitiveness of Indonesia's TPT is still under the power of the competitiveness of Chinese textile. Chinese fabric and yarn commodity have more comparative advantages. This is due to various factors that China has superiority in the production of goods and services compared to Indonesia. Haliding (2010) also revealed that the labor costs are almost the same, but Chinese laborers work more efficient, resilient and patient as well as more adequate skill.

Stemming from the phenomenon that exists, then increasing the competitiveness of Indonesia's textile industry needs to be encouraged. The structure of Indonesian textile industry is still characterized by the use of machinery and the outdated technology that need to be transformed in more competitive industry structure. In this context, strengthening the structure of the textile industry becomes very urgent to do. Mapping the position of Indonesian textile industry is based on internal and external factors that developed and the formulation of alternative strategies to strengthen the structure of the textile industry is the main objective of this study. More specifically, the purposes of this research are (1) Analyze the internal factors (strengths and weaknesses) of Indonesian textile industry, (2) Analyze the external factors (opportunities and threats) of Indonesian textile industry, (3) Formulate the alternative strategies to strengthen the structure of Indonesian textile industry, (4) Formulate the priority strategies for strengthening the structure of Indonesian textile industry.

RESEARCH METHODS

The main data used are primary data obtained through in-depth interview and Focus Group Discussion (FGD). In-depth interviews were conducted on the number of stakeholders in West Java and East Java with a structured questionnaire guide. In the implementation of FGD, stakeholders include: governments (ministry of industry and industrial departments of province/district/city), academician, Indonesian Textile Association (API) and textile industry entrepreneurs that become informants. FGDs were held in West Java (Bogor City) and East Java (Pasuruan Regency) in September-October, 2014.

The analytical method used in this research are SWOT

and QSPM analysis. SWOT analysis is used to map the strengths and weaknesses, opportunities and threats faced by the textile industry. SWOT matrix consists of Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE). David (2006) revealed that the IFE Matrix is a formulation tool that can summarize and evaluate the major strengths and weaknesses of every industries. EFE Matrix is used for planning strategies and evaluating the information opportunities and external threats as well as various aspects related to the development of an industry.

Identification and determination of internal and external weight critical success factors (a key factor) accomplished by using the "Paired Comparison" (Kinnear and Taylor, 1996). To determine the weight of each of the key factors used a scale of 1, 2 and 3, with the following conditions (Table 1) (1) If the vertical indicator is less important than the horizontal indicator, (2) If the vertical indicator is equally important with horizontal indicator, (3) If the vertical indicator is more important than the horizontal indicator.

Table 1 Weight Rating of Internal and External Key Factors

Internal Factor Strategy	A	B	C		Total
A					
B					
C					
....					
Total					

$$\sum_{i=1}^n X_i$$

Source : Kinnear and Taylor,1996

The weight of each key factors is obtained by dividing the total value of each key factors to the number of overall value, using the following formula:

$$a_i = \frac{X_i}{\sum_{i=1}^n X_i} \quad (1)$$

a_i = Weight of the key factors-i

X_i = Total value of the key factors-i

$i = 1,2,3,.....n$

n = Total number of key factors

Giving rating to the internal and external factors uses a scale of 1-4, with the following conditions (Table 2):

Table 2 Determining of the rating of internal and external factors

Rating	Key Factors			
	Strength	Weakness	Opportunity	Threat
1	Rather strong	Rather weak	Rather big	Rather big
2	Strong enough	Weak enough	Big enough	Big enough
3	Strong	Weak	Big	Big
4	Very Strong	Very weak	Very Big	Very Big

In general, the calculation of SWOT analysis includes three stages, namely: (1) The calculation of scores for each factor that is the multiplication of weight with the rating and sum of the total scores on each S-W-O-T factors; (2) The reduction in the total number of S and W factors with O and T factors. The difference in value of S and W factors becomes points on the X axis, and the difference in O and T factors becomes points on the Y axis; (3) The determination of Indonesian textile industry position is represented by point (x, y) on the SWOT quadrant (Figure 1).

Source: Pearce and Robinson, 2004

Figure 1 SWOT Quadrant

QSPM analysis is used to rank the strategies resulting in a prioritized strategy to be implemented. QSPM or quantitative strategy planning matrix is a tool that allows strategists to evaluate alternative strategies objectively based on the internal and external key success factors that have been identified previously. Conceptually, QSPM determine the relative attractiveness of various strategies based on how far the internal and external key success factors used or repaired. The relative attractiveness of each strategies in a set of alternatives is calculated by determining the cumulative effect of each internal and external key success factors (David 2006). The basic format of the QSPM matrix can be seen in Table 3.

Table 3 QSPM (Quantitative Strategic Planning) Matrix

Key Factors	Weight	Alternative Strategies							
		Strategy 1		Strategy 2		Strategy 3		Strategy	
		AS	TAS	AS	TAS	AS	TAS	AS	TAS
External Factor									
1.									
2.									
3.									
Internal Factor									
1.									
2.									
3.									

Stages of data processing use QSPM methods (David 2006) are; (1) Make the list of opportunities and external threats and also internal strengths and weaknesses key in the left column of QSPM. This information is taken directly from EFE and IFE matrix. (2) The weighting for each internal and external factors. The weights are identical to that of the EFE and IFE matrix. (3) Matching phase and identification of alternative strategies that consider to the organization to be implemented. These strategies are recorded on the top row of QSPM. (4) Determine the value of attractiveness (Attractiveness Scores-AS), is defined as a number that indicating the relative attractiveness of each strategies in a certain alternative set. The value ranges of the attractiveness are 1 = not attractive, 2 = somewhat attractive, 3 = quite attractive, 4 = very attractive. (5) Calculate the total value of the attractiveness (Total Attractiveness Scores-TAS), is defined as the result of multiplying the weight (step 2) with the value of attractiveness (step 4) in each row. The higher the total value of the attractiveness, the more attractive alternative strategies. (6) The Sum total of the attractiveness by adding the total value of the attractiveness in the respective columns of QSPM strategies. The sum total of the attractiveness (STAS) reveals which strategies are the most attractive of any set of alternatives. A higher value indicates a more attractive strategy, considering all the internal and external factors that are relevant to influence strategic decisions.

RESULT AND DISCUSSION

In the textile industry, there are five sub-sectors that were involved in doing the processing of raw materials to ready-made textile products. The fifth sub-sector of the industry is fiber industry, yarn

industry, fabrics industry consisting of woven/ fabrics (weaving), knitting, and finishing, the apparel industry (garment), and other textile industries. Figure 2 shows the structure and characteristics of the textile and clothing industry (TPT) tree.

Source: The Indonesian Textile Association (API), 2011.

Figure 2 Tree of Textile and Clothing Industry

The Key Factor for Strengthening Indonesian Textile and Clothing Industry Structure

Based on the results of Focus Group Discussions, the key factors of Indonesia's TPT were identified as: raw materials, production processes, products, markets or marketing, human resources, infrastructure, financial or payment, and policy or strategy. The weight of each key factors based on the assessment done by the stakeholders (industry, government and academia) are presented in Figure 3.

Source: Primary Data (Processed)

Figure 3 The Key Factor for Strengthening Indonesian Textile and Clothing Industry Structure

The raw material is a key factor that is considered to be the most important for strengthening the structure of the Indonesian textile and clothing industry, with a weight of 13.57. This is because the raw material is a factor of production that determines the quantity, quality and continuity of the products, so the availability of raw materials both in terms of quantity, quality, continuity and reasonable cost is essential for the competitiveness of the textile and clothing industry in Indonesia. However, industry actors revealed common problems related to raw materials. Asmara et al. (2013c) reveals that the issues related to raw materials, (availability, continuity and price) becoming the main problem faced by the textile and clothing industry.

The problem of raw material in the textile and clothing industry is closely related to the source of raw materials mostly sourced from imports. FGD obtained information that the raw material (fiber) used to produce textile more than 50 percent is imported. Meanwhile, the raw material, polymer, can be produced in Indonesia with limited amount of production. The production of fiber in the country, is expected by industry actors can fully distribute to the yarn company in Indonesia. In addition, the stability of raw material quality (fiber) which is used less good that can affect the quality and competitiveness of the resulting yarn. Increased investment is needed in the textile industry so that the stability of raw materials quality can be more assured. Asmara et al. (2013b) revealed that the raw materials auxiliary variable originating from within country has positive influence on the level of investment in the textile industry. This means that the increasing in the use of domestic raw material resources will increase the investment in the national textile industry.

Human Resources and infrastructure are the further key factors that are important for strengthening the Indonesian textile industry structure, with a weight of 12.8. According to Kadin Indonesia (2007), the textile industry is a combination of high-tech industries, capital intensive and skills of human resources (HR). Thus, the existence of skilled human resources is needed in strengthening the textile industry structure, especially in the textile industry subsector. In the FGD showed that the limitations of skilled workers, particularly in the textile industry,

are the common problems faced by the industry. Limitations of skilled workers in the textile industry related to the limited higher education in the textile field. On the other hand, local government programs in improving the skills of prospective workers tend to be only sewing skills, while what needed by the textile industry is the ability of workers to operate the equipment/machinery production. This indicates that there's no synergy between local government and the textile industry so that employment opportunities can't be filled by local workers. Problems related to the availability of skilled labor is also experienced in India, NSDC (2011) states, there is still a skill gap of requires skill to some sub-sectors such as the textile industry in spinning industry, fabric manufacturing, fabric processing, and, garment.

Infrastructure and facilities support that are adequate also play an important role for strengthening the textile industry structure in Indonesia. Availability of basic infrastructure (such as electricity, water, roads/ bridges, transportation, and telecommunications) and infrastructure (such as machinery and production equipment) greatly affects the performance of the national textile industry. In the global competitiveness index, infrastructure is one of the pillars of competitiveness that is included in the basic requirement. In 2013, the condition of infrastructure in Indonesia is in the fifth lowest of the twelve pillars of competitiveness (World Economic Forum, 2013). This suggests that the increased availability of infrastructure, both in terms of quantity and quality needs to be improved. Asmara et al. (2013c) reveals that one of the problems related to the production aspect is a power outage. Power outages that are frequent make the textile industry increasing production costs and the production process to be interrupted.

The key factors that are related to the market/ marketing were in fourth position after the raw materials, human resources and infrastructure. This suggests that the ability in marketing and market control determined by the raw materials, human resources and infrastructure owned/ available to the textile industry. The availability of those factors will determine the competitiveness of textile products produced, so not only can compete in the domestic market but also in the international market. Asmara,

Purnamadewi, and Meiri (2013) reveal that most of medium scale textile industries (94.59 percent) sell their products to domestic market. While on a large scale textile industries, most of them (43.48 percent) sell their products to both domestic and foreign.

The product result is a key factor that is also considered to be important in strengthening the textile industry structure in Indonesia. Good quality product that is suitable for market demand trends and competitive prices become the challenges facing the national textile industry. In fact, according to the API, the quality of the domestic textile industry is already much better than imported products, so that it can meet domestic market share (Tresnaningtyas, 2009). While in China, the quality of Chinese textile products is relatively high, and provides the best value for the buyer (Anonymous, 2005).

Related to the production process, in a group discussion showed that there are problems in the production process as there are many companies that produce relatively old age machines, generally older than 10 years, so that the machines is less able to compete. In addition, the machinery technology used for Indonesian textile industry is already left behind competitor countries. Indonesia also has less innovation in making textile machinery so that there is dependency by buying machines from abroad (imports). The worker demands against wage continued to increase, labor demonstrations also become factors that disrupt the production process. Asmara (2013c) also revealed that the production

problems caused by power outages, employees often do not come to work, the high level of out-of-entry (turnover) labor and unskilled labor, causing decreases in production.

Strategies of textile industry as well as government policy have also become one of the key factors needed in strengthening the textile industry structure. Textile industry strategies (includes: product, price, distribution systems, promotion, and innovation) will determine the ability of the textile industry to face the competition. In addition, the support policy/government program will also determine the development of national textile industry. Machine restructuring program is a program launched by the government. The program is considered to be sufficient to help the textile industry, although there are still some obstacles in its implementation in the area.

The key factor that is also considered to be important for the strengthening of the structure of the textile industry in Indonesia is financial. In the group discussion showed that the financial support from the government is still urgently needed by the textile industry, whether for small-scale medium textile industry or large industries. The financial support, especially for purchasing new machines/rejuvenated machines. In addition, the textile industry became one of the industry that obtain the largest financing contribution of Indonesian Export Financing Agency (LPEI) or Indonesia Exim bank (Nur, 2013).

Table 3 Matrix of Strengths Analysis of Indonesian Textile Industry

Key Factor	Weight	Strength	Weight	Rating	Value
Raw Material	13,19	Industry has a variety of alternative sources of procurement of raw materials (domestic and imported)	13,57	3	0,37
Human Resources	13,10	Industry has an adequate number of workers	12,80	3	0,35
Infrastructures	13,19	Most industries have an adequate industrial machineries and tools	12,80	3	0,34
Market/Marketing	12,30	Industry has the experience and ability to market the products	6,34	3	0,19
		Most of the industries has sufficient marketing network in the domestic market	6,34	3	0,17
		Most industries can produce quality products that meet the standards of national/ international market	3,14	3	0,10
Product Result	12,50	Industry can produce products according to consumer preferences	3,14	3	0,10
		Industry is able to produce the products continuously	3,14	3	0,10
		Industry has an innovative product design capability	3,14	3	0,08
Production Process	12,20	Most industries have the ability to adopt technologies that continue to develop	6,22	3	0,17
		Most of the industries uses an efficient modern technology	6,22	3	0,18

Continue of Table 3 Matrix of Strengths Analysis of Indonesian Textile Industry

Key Factor	Weight	Strength	Weight	Rating	Value
Policy/Strategy	12,00	Most industry has strategies to face the competition	11,79	3	0,31
Financing	11,51	Industry has alternative sources of capital	11,37	3	0,32
Total	100,00		100,00		2,77

Source: Primary Data (Processed)

Analysis of Internal Factors of Indonesian Textile Industry

Identification of internal factors (strengths and weaknesses) for each key factors is presented in Table 3 and Table 4. "Industry has variety of alternative sources of procurement of raw materials (domestic and imported)" is the main strength factor of the textile industry. However, the disadvantage faced in terms of raw material is "not always able to guarantee the quantity, quality and continuity of raw materials as needed". Asmara et al. (2013c) showed that there are 30.42 percent of the textile industry and 29.73 percent of textile products industry still facing problems related to the procurement of raw materials. Related to the continuity of raw materials, there are 26.09 percent of the textile industry and 18.92 percent of textile products industry that still facing problems.

weaknesses facing the textile industry. Therefore, improvement of human resources skills needs to be pursued by both government and industry. In order to provide the needs of the workforce, since 2011 the Ministry of Industry, along with the Association of Textile Industry has conducted training programs, certification, and placement in the garment industry, held in the halls of Human Resource Development and Training Center Industry in Java (Anonymous, 2014). In addition, Kemenakertrans did internship programs to Japan for 2,500 Indonesian workers, like vocational field of textile industry. The internship program can help the workforce absorbed in the job market, because the program provides appropriate skills to labor market needs and also work experiences with a variety of conditions of employment in the company (Anonymous, 2013).

Table 4 Matrix of Weaknesses Analysis of Indonesian Textile Industry

Key Factor	Weight	Weakness	Weight	Rating	Value
Raw Materials	13,19	The industry does not always guarantee the quantity, quality, and continuity of raw material obtained in accordance with the required	13,57	2,93	0,40
Human Resources	13,10	The number of skilled workforce is relatively limited	6,40	3,00	0,19
		Human Resources productivity in the textile industry is still relatively low	6,40	2,93	0,19
Infrastructures	13,19	Most industries are still using old machines and production equipment	12,80	2,73	0,35
		Industry has not been able to utilize the existing market potential	4,23	2,47	0,10
Market/Marketing	12,30	Fluctuation of the income and production levels	4,23	2,14	0,09
		Most of the industries has not had an adequate marketing network in export markets	4,23	2,53	0,11
Product Result	12,50	Industry has not been able to produce the products with lower prices than competitors	12,56	2,40	0,30
Production Process	12,20	Industry could have not fully utilize the installed capacity (not efficient)	6,22	2,60	0,16
		Most industries are still using an older, less efficient technology	6,22	2,73	0,17
Policy/Strategy	12,00	Only a small part of industry that has R & D policy	11,79	2,67	0,31
Financing	11,51	Most industries are still facing capital constraints	5,68	2,93	0,17
		The profitability of the industry tends to be fluctuated	5,68	2,60	0,15
Total	100,00		100,00		2,69

Source: Primary Data (Processed)

Related to human resources, the strength of the textile industry is on its adequate amount of labor. However, the availability of skilled labor and the low level of productivity of human resources become

For infrastructure key factors, the strength owned by the textile industry is partly machinery and tools that are adequate. But the weakness is most industries still use the old machines and tools. It also occurs

in Pakistan textile industry that generally still using outdated machines (Aamar, 2012). Correspondingly, the weakness related to production process still using old technology which is inefficient and has not fully utilize the installed capacity. The strength is part of the industry use modern technology and have the ability to adopt the technology. Therefore, restructuring machinery by the government (Ministry of Industry) needs to be effectively improved, so it will provide an enormous impact on the rejuvenation of the old machines in the textile industry.

Ministry of Industry (2014) revealed that according to the data from the Agency of Assessment Policy, Climate and Industrial Quality (BPKIMI), has allocated a budget of Rp1.10 trillion for restructuring program of machinery/textile industry equipment since 2007-2011. Through the restructuring program of the machinery, each industries that restructure their machine by buying machinery from abroad will receive 10% incentive of funds for purchasing the machines and when they buy machines from domestic industry, they will receive 15% intensive . Machine restructuring program had a positive impact on increasing foreign exchange earnings from textile commodities exports, and increased labor absorption in the textile industry.

Related to market/marketing, the strengths of the industries are the experience and ability to market their products, and they already have an adequate marketing network in the domestic market. While their weakness is not able to utilize the existing market potential, most of the industries have not had a marketing network in the export market as well as fluctuating income and production. Correspondingly, the disadvantage of the product is not yet able to produce products with lower prices than competitors. Besides these weaknesses, the strength of the industry is their ability to produce quality product continuously, fulfill the national/international standards, meet the consumer preferences and have the ability to design innovative products. Some of the strengths of the market/marketing and products need to be developed by the textile industry so that it has competitive advantages in the marketplace. In this context, the role of research and development (R & D) becomes important, both in terms of market and product research. However, Asmara et al (2012)

showed that only a small proportion of the textile industry (13.04 percent), and industrial textile products (8.11 percent), has R & D. Moreover, he also revealed that the textile industry, R&D undertaken include product innovation, production efficiency, market survey and management. While the textile products industry, R & D conducts more limited on product innovation and production efficiency.

Related to policy/strategy, the strengths of the textile industry are some of the industries have strategies to face the competition. Meanwhile, the weakness is only a small part of industry that has R & D policy. Asmara, Purnamadewi, and Meiri (2013) revealed that to face the competition, the strategy undertaken by the industry include the strategic price and non-price strategy (product, promotion and distribution). On the pricing strategy, the textile industry generally sets the price based on cost plus profit. Meanwhile, related to the products, generally is to maintain/improve product quality, while for strategy of products development/innovation, textile industry barely did it.

The strength of the textile industry related to financial is to have an alternative source of capital. Meanwhile, the weaknesses are the industry facing the problem of capital and the profitability of the industry that tend to be fluctuated. This shows that the financial support from the government/financial institution needed to strengthen the capital structure of the textile industry.

Analysis of External Factors of Indonesian Textile Industry

Identification of external factors (opportunities and threats) are presented in Table 5 and Table 6. Related to raw materials, the opportunities of the textile industry are the ease for obtaining imported raw materials, synthetic raw material supply of domestic and import tax refunds. Meanwhile, the threats facing the industry are the dependence (fiber and fabric) on imported raw materials and raw material prices are likely to increase. Taking into account the internal and external conditions, the increased production of domestic raw materials and innovation development of substitute raw materials can be an alternative solution to be considered by the government and industry.

Table 5 Matrix of Opportunities Analysis of Indonesian Textile Industry

Key Factor	Weight	Opportunities	Weight	Rating	Value
Raw Materials	13,19	Ease for obtaining imported raw materials	4,52	2,38	0,11
		Synthetic raw materials (polyester) are supplied by domestic products	4,52	2,53	0,11
		Tax refunds of imported raw materials for industrial products exported	4,52	2,50	0,11
Human Resources	13,10	Availability of labor in sufficient numbers	4,27	2,33	0,10
		The government encourages vocational education and facilitate for educational and training	4,27	2,43	0,10
		The level of labor costs are relatively cheap	4,27	2,29	0,10
Infrastructures	13,19	Facilitation of government procurement/ the aid of machines and tools	6,40	2,20	0,14
		The government continues to improve and build main infrastructures (roads, electricity, ports, water, etc.)	6,40	2,53	0,16
		Domestic and export markets are increasingly opened	4,23	3,33	0,14
Market/Marketing	12,30	Support/facilitation of the government for increasing exports	4,23	2,47	0,10
		Market demand (domestic and export) are likely continued to rise	4,23	3,07	0,13
Product Result	12,50	Prices of products in the international market which is likely to increase	12,56	3,27	0,41
Production Process	12,20	The production technology is constantly evolving and increasingly efficient	6,22	2,93	0,18
		There are government supports for the development of an integrated industrial zones and bonded zones	6,22	2,47	0,15
Policy/Strategy	12,00	Government support to continue developing the national industry (textile industry entered as a strategic industry)	11,79	2,87	0,34
		National banking condition is getting better	3,79	2,80	0,11
Financing	11,51	Sources of financing opportunities from inside / outside the country	3,79	2,20	0,08
		Facilitation of government in financing	3,79	2,20	0,08
Total	100		100,00		2,67

Source: Primary Data (Processed)

Table 6 Matrix of Threats Analysis of Indonesian Textile Industry

Key Factor	Weight	Threats	Weight	Rating	Value
Raw Materials	13,19	Fiber and fabric industry still relies on imported raw materials	6,79	2,79	0,19
		Raw material prices tend to be fluctuated with the growing trend	6,79	3,20	0,22
Human Resources	13,10	Labor turnover rate is relatively high	6,40	3,40	0,22
		The demands for increasing the wage of the workers	6,40	3,53	0,23
Infrastructures	13,19	Machines and tools are imported	6,40	2,87	0,18
		Inadequate availability of infrastructure	6,40	3,07	0,20
Market/Marketing	12,30	The high level of competition in both domestic and export market	12,68	3,40	0,43
		Many similar products (product substitution) from competing countries	4,19	3,40	0,14
Product Result	12,50	The increasing of demands standards / certifications	4,19	3,07	0,13
		Prices of products from competing countries are cheaper	4,19	3,47	0,15
		Sources of energy / electricity with frequent blackouts	4,15	3,13	0,13
Production Process	12,20	The workers demonstration	4,15	3,47	0,14
		Energy prices (electricity/fuel) are likely continued to rise and relative price of energy policies that frequently change	4,15	3,20	0,13
Policy/Strategy	12,00	Government policy related to the minimum wage (UMR/UMP), and other taxes can be burdensome/not in accordance with the interests of the industry	5,89	3,33	0,20
		Policies from competing countries	5,89	2,87	0,17
Financing	11,51	Bank rate tends to be higher	5,68	3,00	0,17
		Access to financial sources is still limited	5,68	2,60	0,15
Total	100		100,00		3,17

Source: Primary Data (Processed)

Related to human resources, the opportunities of the textile industry is an adequate number of workers, government support in vocational education and also educational and training as well as the level of the low wages. The threats are the increasing of wage demand and labor turnover rate is high. Therefore, what needs to be done is to build the harmonization of industrial relations between the company and the employees which getting better. In this context, government / regional government is required to become a mediator that is able to formulate a win-win solution policy for both parties, so the business climate becomes more favorable. Meanwhile in China, labor costs are still low and have not increased over the last five years (Anonymous, 2005).

Opportunities in the infrastructure sector are the facilitation of government in the procurement of machinery and efforts to continuously improve main infrastructure. Meanwhile, the threats are the availability of inadequate infrastructure and imported machinery. Along with it, the threat faced from the side of the production process is the frequent power outages, the price of energy (electricity / fuel) which tends to rise and also labor demonstrations. The chances are the evolving production technology and the development of an integrated industrial zones and bonded areas. Therefore, the increasing of infrastructures availability needs to be pursued by the government and industry to ensure the sustainability of efficient production process.

Related to the marketing, the opportunities of the industry are the domestic and export markets that continues to open. Government support in increasing exports and increasing market demand. The threats facing is the high level of competition in both domestic and export market. Correspondingly, in terms of products, the threats that may be faced are there many similar products and product prices that cheaper than competing countries as well as the increasing of certification demand. While the chances are the price of products in the international market are likely to increase. The development of prices of these products are the main opportunities (highest scoring) for the textile industry. On the other hand, the high level of competition is a major threat faced by textile industry. These findings indicate that the improvement of industrial competitiveness

becomes the key for reaching opportunities and facing the threats. Asmara et al (2013a) concluded that the Indonesian fiber and garment industry product have comparative advantages (competitive) in the international market, but the industrial yarn products do not have comparative advantages (low competitive).

Government support for the development of national industry and facilitation of financing, national banking conditions that are getting better as well as the openness of financing sources whether inside or outside the country, becomes an opportunity that is related to the aspects of policy and financing. Meanwhile, the threat related to these two aspects are: policies regarding the minimum wage, taxes and other burdensome to the industry, the policy of competitor countries, interest rates are likely to increase, and limited access to capital resources. Therefore, in this context, the synchronization of policies and coordination between institutions (inter-ministerial, central and local government) becomes more crucial.

Strategies for Strengthening Indonesian Textile Industry Structure

The calculations show that the IFE (strength-weakness) matrix is positive (+), i.e. 0.08, while the EFE (opportunities-threats) matrix is negative (-), i.e. -0.50 (Table 7). Thus the position of Indonesian textile industry is in quadrant II (positive, negative), indicating that the textile industry not only has strengths, but also face the threats (Figure 4).

Table 7 IFE and EFE Matrix of Strategies for Strengthening Indonesian Textile Industry Structure

Internal Matrix			External Matrix		
S	W	Total	O	T	Total
2,77	-2,69	0,08	2,67	-3,17	-0,50

Pearce and Robinson (2004) revealed that recommendation strategy for organizations that is in Quadrant II (positive, negative) is Diversification Strategy. Organizations face a number of tough challenges that are expected to experience difficulties when just resting on the previous strategy and suggesting to immediately multiply diverse tactical strategies. Thereby, strengthening the structure of the textile industry in Indonesia needs to be formulated

in a variety of alternative strategies (diversification strategy). The results of the identification of critical success factors (a key factor) internal and external form the basis for formulating alternative strategies.

Figure 4 Analysis of Strategies for Strengthening Indonesian Textile Industry Structure

Based on the internal and external key factors, the diversification strategy of strengthening the Indonesian textile industry structure that can be identified are presented in Table 8.

Table 8 Diversification Strategies for Strengthening Indonesian Textile Industry Structure

Key Factor	Strategy	
Raw Materials	S1	Maintain and utilize alternative sources of procurement of raw materials (domestic and imported)
	S2	Making development/innovation of alternative raw materials that can be produced domestically.
	S3	Increasing the number of skilled workers in the textile field.
Human Resources	S4	Increasing the productivity of human resources in the field of textile.
	S5	The development of education and training programs in the field of textile.
	S6	The development of decent wage system for employees and industry.
Infrastructure	S7	Increasing the intensity of renovation/restructuring machinery program.
	S8	Increasing the quantity and quality of major infrastructure, especially electricity.
Marketing	S9	Increasing competitiveness of the textile industry.
	S10	The development of appropriate marketing strategies for targeted market segmentation (domestic / export).
Product Result	S11	Improving the quality and innovation of products according to consumer preferences.
	S12	The development of the competitive product pricing strategy.
Production Process	S13	Optimizing the utilization of the machine/tool suitable capacity.
	S14	Improved technology adoption.
Policy/Strategy	S15	Harmonization of policies that promote a conducive business climate.
	S16	The development of financing schemes that fit the needs of the industry.
Financing	S17	Tax/non-tax incentives for prospective industries.

Priority Strategies for Strengthening Indonesian Textile Industry Structure

After the formulation of strategies to strengthen the Indonesia's TPT structure using SWOT matrix based on internal and external strategic information factors from IFE and EFE matrix, the last stage is the selection of priority strategies or the best strategy by using analytical tools, Quantitative Strategic Planning Matrix (QSPM). QSPM is based on the aim to acquire the best priority strategy that is interesting to be implemented in accordance with the direction of government policy and the conditions of its own textile industry.

The determination of the interest on QSPM conducted through FGD by industries, government, and academician. Based on these discussions determined 17 most important strategies implemented by the Indonesian textile industry. The results of QSPM analysis are in Appendix 1. The results of QSPM analysis for strengthening Indonesian textile industry structure are briefly shown in Table 9.

Table 9 The Results of QSPM Analysis for Strengthening Indonesian Textile Industry Structure

Strategy	STAS	Rating
S1	9.93	3
S2	9.50	10
S3	9.65	8
S4	9.71	6
S5	9.17	12
S6	9.52	9
S7	9.40	11
S8	9.12	13
S9	9.95	2
S10	9.02	16
S11	9.05	15
S12	9.99	1
S13	9.12	14
S14	9.69	7
S15	9.84	5
S16	9.93	4
S17	8.61	17

In Table 9 it can be seen that, the most interesting strategy or the most priority strategy is the development of a competitive product pricing strategy (S12) with STAS value of 9.99. The next priority strategy is the improvement of the textile industry competitiveness (S9), maintain and utilize various alternative sources of procurement of raw materials (domestic and imported) (S1) with STAS scores respectively 9.95 and 9.93.

The reasons to prioritize the development of competitive price products strategy are the prices of Indonesian textile products are less able to compete with textile products from other countries, especially China. Indonesian textile products have higher prices of Chinese textile products due to the high cost of transportation and production costs, and also the tax rate specified in producing apparel in Indonesia, which makes the price of Indonesian textile products becomes uncompetitive in local market even in international market (Hartono, 2013).

Although the quality of Indonesian textile products is similar and even superior to the quality of textile products of other countries, but consumers still consider to the price of these products which will affect their purchasing decisions. Uncompetitive price of Indonesian textile products due to high raw material

prices, as most raw materials are imported and some types of raw materials are taxed imports, such as cotton imports are subject to PPN of 10 percent for each purchase. According to Widodo and Ferdinand (2010), the national cotton fiber needs will increase due to rise in the volume of industrial production of textiles and textile products. With the revocation of cotton fiber export subsidies of developed countries, the world cotton price will be more expensive, thus the dependency on imported cotton fiber has to be suppressed by spurring domestic fiber production.

In addition, uncompetitive prices are also influenced by the high level of wage (UMR) imposed as well as the increasing of basic electricity tariff. There are also differences from raw material prices and wages (UMR) in some areas, for example the price of raw materials and UMR in East Java province higher than in the West Java, where it will be weighed on the textile industry in East Java.

CONCLUSIONS AND RECOMMENDATIONS

The high level of competition in the textile industry products is a real phenomenon faced by Indonesian textile industry. Even the level of competition is one of the main threats to the continuity of the textile industry in Indonesia. In addition, there are various threats from external side, internally national textile industry also has many weaknesses. The inability to ensure the availability of raw materials (quantity, quality and continuity) is one of the major weaknesses of Indonesian textile industry. Some other disadvantages are related to the machineries and tools that are outdated, and limited skilled human resources.

However, Indonesian textile industry also has a wide range of power that can be developed so that the existence of Indonesian textile industry is maintained. It have a variety of alternative sources of procurement of raw materials (domestic / imported), an adequate amount of labor and machinery (modern) in most industries are some of the strength of the Indonesian textile industry. On the external side, the increasing of product prices in the international market, the government's support, emerging technology and domestic/export market potential increasingly opened are partly the opportunities that can be

utilized by Indonesian textile industry which can continue to develop.

With a variety of internal and external conditions that are evolved, Indonesian textile industry which is on SWOT quadrant is in quadrant 2 (positive, negative). That means that the Indonesian textile industry has power, but it still faces the threat. Therefore, the Indonesian textile industry is encouraged to develop a diversified strategy for strengthening textile industry structure. Based on QSPM analysis, there are 5 most prioritized strategies to be implemented: (1) develop the competitive price products strategy, (2) improve the competitiveness of the textile industry, (3) Maintain and utilize various alternative source procurement of raw materials (domestic and imported), (4) develop the financing schemes that fits the needs of the industry, and (5) harmonizethe policies that promote a conducive business climate.

Related to the programs that have been implemented by the government (Ministry of Industry), needs to be continued. Machinery revitalization program should be continued, and it can be increased its effectiveness that needs to be evaluated, so that many challenges still encountered in its implementation that can be addressed immediately. Correspondingly, Ministry of Industry also needs to develop other programs, particularly related to the strengthening of raw materials aspects, human resources, infrastructures and markets/marketing. This is based on the consideration that those four aspects are the main aspect for strengthening the textile industry structure in Indonesia.

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