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Analysis on Competitiveness Structure, Value Chain and Development Strategy of Indonesian Apparel Industry

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Abstract: This paper aims to identify the competitiveness structure and the value chain governance pattern of Indonesian apparel industries in global value chain and also develop future strategy of Indonesian apparel industry. The research is a case study to determine the factors that enable Indonesian apparel industry to survive in global competition even hit by several problems using Cho's Nine Factor model. Although Indonesia apparel industry can survive in global competition, the growth gets slower. In order to analyze why Indonesia apparel industry is stagnant, an analysis on Gereffi's value chain model is conducted, and restricting factors are analyzed by using a system dynamics model.

Unique competitiveness structure has been developing in Indonesian apparel industry, where the research shows that Indonesian apparel industry's competitiveness is caused by the movement to medium-up products. The drivers were only two out of nine Cho's factors, namely: (1) entrepreneurs; and (2) opportunities. There is one new factor that makes the movement become successful, which is (3) historical relationship based on trust. As the result of the product upgrading to medium-up goods successfully, there are two other factors that support the enhancement of the Indonesia apparel industry competitiveness, namely: (4) workers and (5) professional. While, three factors hindering competitiveness, which are (6) business environment, (7) supporting and related industry, and (8) politicians and bureaucrats, could be solved even by increasing cost. Furthermore, one factor, which is (9) domestic demand, even though it does not hinder, it does not support the competitiveness.

The reason for the export stagnation is that Indonesian apparel industry only involves in lower value added activity, where the stage of involvement in value chain is original equipment manufacturing (OEM). In general, Indonesian apparel industry is not ready to perform functional upgrading to original design manufacturing (ODM) and/or original brand-name manufacturing (OBM), due to the limitation of resources. The workers and professionals are enough for OEM, but have to increase to perform functional upgrading to ODM and/or OBM. The value chain governance pattern is relational.

The strategies that can be done in order to promote Indonesian apparel industry are to encourage entrepreneurs to invest in order (1) to increase the capacity of workers and professionals, both quality and quantity; (2) to increase the production capacity.

Keyword: Indonesian apparel Industry, competitiveness, value chain, development strategy

A. INTRODUCTION

Textile industry and textile products (TPT) are strategic industries because they have several important roles, such as; (1) produce significant foreign exchange; (2) absorb significant manpower; (3) provide basic needs of the people¹ From 2009 to 2013, the number of TPT companies continues to show increasing trend. In 2009 there are 4.777 companies which increased to 5.178 company in 2013². This is in line with increased investment employment and production volume. Employment keeps increasing from time to time, where workers absorbed by TPT industries in 2010 are 2,061 million people which increased to 2.94 million people in 2013. Meanwhile, manufacturing industries only absorb 1.36 million labor forces in 2013.

TPT industries consist of fiber making industry, spinning industry, fabric industry and apparel industry. In 2013 trade balance of Indonesian TPT products shows trade surplus for apparel industry as much as \$6.9 billion and for spinning industry as much as \$1.7 billion. Meanwhile, the trade balance of fiber products shows a deficit of \$1.66 billion and that of fabrics show deficit of \$ 2.76 billion³. In this case, the product which is most likely to achieve export boost is apparel. Hence, this study focuses on Indonesia apparel industry, especially in relation with competitiveness and value added being produced in the global chain.

Apparel industry is an industry that produces ready-to-wear clothing or finished clothing including contractors for clothing making who perform the operation of cutting and/or sewing the materials owned either by itself or by others/third party⁴. Meanwhile, knitting, when done solely, is classified into textile industry subsector, but knitting combined with clothing production, will be classified as apparel industry. Therefore, apparel industry is an industry producing all goods classified in harmonized system (HS) chapter 61 and 62⁵, either the raw materials is owned by itself or by others.

Competition between apparel industries is very tight at every level. Apparel industries in Indonesia started to develop in 1970s and most of them are export-oriented and owned by local companies⁶. Throughout many years, the success of most of Indonesia apparel industries can be linked to the comparative advantages in terms of cheap worker and property. Economic crisis in Asia during the 1990s made apparel industries in Indonesia relatively cheaper for buyers in the global market⁷. This condition is finally over. Beside losing its comparative advantage, Indonesian TPT industry, including apparel industry faces several problem, such as: a) non conducive system for port infrastructure; b) textile machineries are aging; c) illegal imported products⁸; d) dependency on imported machinery and raw materials; e) limiting export destination countries; f) high transportation costs due to lack of interconnectivity; g) labor issues bothering the apparel industries; h) functioned supply chain system⁹. This problem has caused apparel industries to operate in non-conducive environment, or in the high cost economy situation. Nevertheless, apparel industries are still able to enter the top ten exporting apparel industries in the world. This phenomenon is very interesting subject to be observed, particularly on the competitiveness structure.

Competitiveness is a business concept that describes the company attributes which make it possible to outperform their competitor¹⁰. According to Cho's Nine Factors model, there are 9 (nine) factors affecting

competitiveness, namely: human factor including workers, politician and bureaucrats, entrepreneurs, and professional; physical factors including endowment resources, domestic demand, supporting and related industries, and business environment; and one external factor, opportunity. This study aims to assess the competitiveness structure of Indonesian apparel industries in the global market using the Cho's Nine Factors model¹¹. How competitiveness components interact one another forms a structure which is based on their interaction. Referring to this conceptual framework, Indonesia apparel industries competitiveness structure that enable Indonesian apparel industries to survive in the global market could be identified. Thus the anomaly of Indonesian apparel industry can be explained why industries are able to sustain within the global competition even being hit by numerous amount of trouble.

Despite its success as one of the ten largest exporting countries worldwide, apparently export growth in the last few years slowed down. Besides understanding the competitiveness structure, it is also important to conduct further research about whether the stagnant condition mentioned above is influenced by globalization and liberalization of global trades or caused by internal barrier limiting export growth. The volume of apparel exports in developing countries is consisting of more than 70% of the total global apparel export, while its share in term of value added globally is less than 30%. On the contrary, developed countries, like USA, European Union and Japan, are getting more than 70% of the apparel value added globally. This phenomenon needs to be analyzed further using the global value chain theory rooting to world system theory presented by Hopkins and Wallerstein (1977)¹² which later on developed by Gereffi¹³. Value chain concept is used to analyze international trade in a global value chain consists of activities being done by a company to create products or services from concept, design, creation of raw materials and in between products, marketing, distribution and its supporting to end customers. By understanding value chain governance pattern, it is possible to understand an activity with bigger portion of value added and might be derived from the whole global value chain. Apparel industry involves a lot of companies worldwide to create a single global value chain. Despite researching for value chain, it is also essential to analyze the stagnation problem by using system dynamics point of view in order to observe interactions between variables affecting the stagnation.

B. LITERATURE REVIEW

The Competitiveness

Various definition of competitiveness can be found in various literatures. Powel (2001) state: "*competitiveness, in general, is ability related to prosperity, or sustained superior performance of any subject*".¹⁴ While, Aiginger (2006) defined competitiveness as *the ability of a country or location to create welfare measured by a welfare function of income per capita, set of social and distributional indicators, and a set of ecological indicators* According to Yang (2012): "*competitiveness is the degree to which it can, under free and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people over the long term.*"

The term competitiveness can be used in various levels, such as national level described by Aiginger (2006) or industrial level like delivered by Yang (2012) or in company level delivered by Porter (1990). But various levels and coverage of competitiveness intertwined. In fact, the competitiveness of a company, an industry, and a country mutually influence and influenced by each other. More specifically, the company

competitiveness affects the industry competitiveness and vice versa, while industry competitiveness affects national competitiveness and vice versa. In this study, the definition of competitiveness is, using a summary of various understanding above, *the ability of an apparel industry company to offer products and services complying to the quality of market with competitive price and still gives considerable gains to all resources used to produce them.*

Competitiveness could be achieved by process improvement in various fields, include physical, capital, labor, technical process, ability, and trust. Competitiveness is arranged in a structure consisted of factors. Competitiveness structure is a set of factors which interact with each other to form competitiveness.

Between 1994 and 2000, Korean scholar led by Dong-Sung Cho created Nine Factor competitiveness model. International competitiveness cannot be measured either by the balance of trade or of the market segment of the world, like described by traditional approach, or with the supply of labor, capital resources and natural resources as described in the Porter model (the possession of resources does not determine the competitiveness per se). Instead, the competitiveness must cover other factors which are more comprehensive. For this reason, Cho thought that competitiveness on sector level can be defined as: *“domestic industry having competitive advantage if its position in the market is outperformed the competitor which is obtained from high profit and constant growth”*. Nine Factor model was thought to be more appropriate to explain the competitiveness of less developed and developing countries, so that it can evaluate the competitiveness of these countries better¹⁵. Nine Factor model separates the factors establishing competitiveness into two groups, namely internal factor consisting of eight factors and external factor consisting only one factor. Internal factors divided into two groups, which are physical factor consisting of endowment resources, domestic demand, supporting and related industries, and business environment and non-physical factor or human factor consisting of workers, politicians and bureaucrats, entrepreneurs, and professionals.

Besides, choosing Nine Factor Model is also based on the findings of Cho et al (2008) that empirical test of the model used of this model in Korea, stating that this model is more precise when used for developing countries¹⁶ like Indonesia. Different level of each country makes the model is widely used in the application of the competitiveness concept in developing countries. So, improvements in physical and human factors imply the movement toward better competitiveness on each stage of country economic development and enable to improve country economy at every stage.

The Global Value Chain Theory

Global value chain is a system creating value added in which the performers come from different economy, work together across national boundaries to produce, to market and to distribute products and services to consumers around the world by combining technology, material and labor¹⁷. The involvement rate of a company in global value chain can be classified into four major groups:¹⁸

1. **The process assembling/CMT.** This is the stage the most basic of industry apparel, in which apparel industries are provided input by buyer to be assembled.
2. **Original Equipment Manufacturing (OEM)/Full Package.** Apparel industry is responsible for any of its operations, including CMT activities, procurement of raw materials, finishing and shipment.
3. **Original Design Manufacturing (ODM)/Full Package plus Design.** This business model includes design besides manufacturing.

- 4. Original Brand-name Manufacturing (OBM):** this is the kind of business that combines branding products, besides the design and manufacturing.

The global value chain is the evolution of the dynamics in international trade that is propelled by telecommunication progress, more efficient transport and less regulatory cross-border trade barriers¹⁹. Basically, value chain shows various activities that must be taken by a company to bring products from conception to the ultimate user and so on. This includes all activities ranging from the beginning including all of the activities such as design, production, marketing, distribution to consumers until the end²⁰.

Factors which influence governance pattern of global value chain are: a) transaction complexity, transfer of knowledge and necessary information of products and services in a transaction; b) ability to codify or codifiability, in the extent that information and knowledge can be transmitted in a very efficient way; and c) competency of supplier, the ability of suppliers to fulfill the requirement²¹. Based on three factors above, Gereffi divided governance pattern of global value chain into five pattern, namely: 1) market, market type is characterized by governance which includes simple transactions and low complexity information, the simpler products with little need to coordinate and codification; 2) modular, usually suppliers in a modular value chain make a product to the customer specifications and take full responsibility for process technology by using of widespread generic machine and equipment. This reduce the cost of partner redirection remained low and transactions limited on an specific investment, although interaction between suppliers and buyers can be very complex; 3) relational, in this governance pattern, buyers and sellers equally rely on complex information and not easy to be transmitted or obtained. This will make interaction and knowledge exchange more intense between buyer and seller. This kind of relationship needs high level of trust which causes, in general, mutual interdependency; 4) captive, governance pattern of captive value chain marked the governance pattern where small suppliers depend on the dominant buyers that control and monitor the activities in the chain. This imbalance power results that suppliers have to follow the terms and conditions set by the buyers; and 5) hierarchy, the dominant form of this governance pattern is managerial control, flows from manager to subordinate, or from the central office to subsidiaries and affiliates. Governance pattern of hierarchy value chain has full vertical integration if product specifications cannot be codified, very complex and, competent suppliers could not be found, so that buyers forced to control resources²².

C. METHODOLOGY

This study uses the mixed method research approach. The purpose of the use of mixed method research is to obtain a better understanding about the research issues and complex phenomena through a combination of quantitative and qualitative approaches in comparison with only using one approach³². In relation to this method, this study uses two paradigms, namely: postpositivism and constructivism and expressivism³³. The competitiveness structure of Indonesian apparel industry uses postpositivism, while in order to formulate a 5-year strategy with the system dynamics, constructivism and expressivism are employed.

The phases of this study are as follows:

1. Phase One: Problems Identification
2. Phase Two: Literature

In this phase, the study seeks to find conceptual theoretical reference to identify factors affecting the competitiveness of Indonesia's apparel industry by using Cho's Nine-Factor Model. Then, similar with the global value chain governance pattern by using Gereffi's Model. This phase produces 8 (eight) factors that affect the competitiveness of Indonesia's apparel industry and 5 (five) global value chain governance pattern.

3. Phase Three: Data Collection and Processing

Firstly, 3 (three) informants were interviewed to understand the factors affecting the competitiveness of Indonesia's apparel industry and global value chain governance pattern. The informants were selected with purposive sampling. The results of the interview were transcribed in verbatim, and then triangulated to the sources to ensure accuracy. Next, a Focus Group Interview (FGI) was conducted as a second triangulation. Government officials, Indonesia's apparel industry association and leaders different from the people interviewed prior were involved in the FGI.

4. Phase Four: Competitiveness Structure and Governance Pattern

Data processed from secondary sources, interview, and triangulation to the informants, and FGI were used to understand the competitiveness of Indonesia's apparel industry and global value chain governance pattern.

5. Phase Five: Causal Loop Diagram (CLD) Development and Data Collection through Questionnaires

6. To understand the future strategy, a dynamic is used. The dynamic system is CLD and SFD. CLD was developed based on secondary sources, interview, triangulation and FGI. The purpose of this to ensure that the model is based on the variables that is in alignment with Indonesia's apparel industry. The variables were determined by dominant organization logics (apparel industry). System dynamics is a representative of mathematical and problems; however, most of the information available is not in the numeric form. Most of the available information is qualitative³⁴. The questionnaires were distributed to gather numeric information. There were 45 (forty five) selected respondents who participated in the questionnaires.

Sample

Interviews were conducted to three (3) informants who were selected by purposive sampling, namely the decision makers in each apparel industry selected. Selection of the respondents based on researchers understanding that the decision makers are the best and the most suitable to be used as informants because of their experiences on problem or situation faced by apparel industry.

Most of garment industry located in West Java (39.82%) followed by Central Java (23.05 %), hence informants taken from apparel industry which has competitiveness in these two provinces. Informants for in-depth interviews were chosen from Bandung, Solo and Semarang and surrounding areas.

FGI participants consist of six (6) people from the ministry of industry officials, Indonesian Textile Association and industry representatives. Besides, FGI Participants asked respondents about the topic simultaneously. Data was collected from questionnaires, forty five (45) respondents were chosen by purposive sampling, namely PMDN apparel companies and the respondents must be high rank staffs.

D. FINDING AND DISCUSSION

The data is analyzed by identifying common pattern in the extraction of a theme that recurs²³. The focus of this analysis is eight decisive factor of competitiveness identified from Cho's Nine Factor model and one new competitiveness decisive factor. The main issue that emerged from the interviews was interpreted as concurrent with information gathered from secondary data through government publication, industry report, media, and trade and industry association. To achieve the internal validity, participants were asked to review his or her interpretation. This is the first triangulation²⁴.

Then, this finding is interpreted into Cho's Nine Factor Model for Indonesian apparel industry. The theoretical competitiveness model for Indonesian apparel industry consists of factors, namely: (1) business environment; (2) supporting and related industry; (3) domestic demand; (4) workers; (5) entrepreneurs; (6) politicians and bureaucrats; (7) professionals; and (8) opportunities. The endowment natural resources are not a decisive competitiveness factor of Indonesian apparel industry.

The research findings show that only 2 out of 9 factors that actually drives Indonesian apparel industry competitiveness, (1) entrepreneurs; and (2) opportunities. Other factors, such as: 1) business environment; (2) supporting and related industries; (3) worker; (4) politicians and bureaucrats; and (5) professionals (managers and engineers) are the variables that still hinder the industry's competitiveness. While domestic demand, though not hinder the competitiveness, but has not been a driver for the industry's competitiveness.

The right decision accompanied by courage to move from low-end to medium up products, which needs increase investment, can be done only with strong entrepreneurship. The product shifting to medium-up affects workers and professionals variables. The variable of workers which initially hinders the competitiveness due to high cost is no longer a barrier. For medium-up products, labor cost is not the major factor, so it can be negotiated, certainly within the limits of economic considerations. Despite the high cost, Indonesian workers are highly precise which makes the rejection rate of the products is considerably low. Therefore, the workers became one of the push factors for Indonesia's competitiveness. In addition, Indonesian professionals are very loyal, so that although it is very costly to get or create them, in the long run they become valuable assets.

Thus the variable of labor and managerial & professional is no longer a barrier; instead it is a driver to increase competitiveness. In this case, workers and professionals have turned to become the driver of increase competitiveness from hampering the competitiveness of Indonesian apparel industry. In addition, other hindering factors can be overcome by entrepreneurs with specific strategies that vary between companies.

Based on the competitive analysis study, we found a new factor outside the Cho Factor, which is the competitiveness variable of Indonesian apparel industry. The variable is historical relationships based on trust. Without relational collaboration and historical relational between global buyers and Indonesian apparel industry which has lasted for years, it would not create the competitiveness. Historical relationship is the leverage of Indonesian apparel industry competitiveness. The historical relationship is built on industry's reputation. This is due to the risk borne by the buyer is very high if partners cannot comply with the contract, so the buyers are quite selective in choosing partners. Therefore, the selection of partners by buyers is more trust-based than price-based, especially for medium-up products. A good reputation will certainly increase the global buyer's trust. This shows that the historical relationship is highly important to increase Indonesian apparel industry competitiveness.

The focus on the analysis of value chain governance pattern model is the position of Indonesian apparel industry, and the chance for upgrading. There are five governance pattern in Gereffi's value chain model, namely (1) market; (2) modular; (3) relational; (4) captive; and (5) hierarchy. Indonesian apparel industries mainly have relational pattern, characterized by the interdependence between parties involved and developed through reputation, social or spatial proximity. For Indonesian apparel industry, this relational relationship is formed based on a reputation which lasts for a long time to form a historical relationship. The level of involvement is related to the governance pattern. The OEM has relational pattern, ODM has modular pattern and OBM has market pattern of value chain governance.

Even though Indonesian entrepreneurs realize that either ODM or OBM has higher value added than OEM, there is no company except one would like to move to ODM. The reason is that most of the companies are lack of resources, both manpower and capital, to involve in either ODM or OBM although they have enough resources for OEM involvement. The study shows that manpower needed is the professional for middle management. In addition, Indonesian entrepreneurs have not been ready to enter more competitive world. They have felt comfortable as OEM partners of the buyers.

Indonesian Apparel Industry operates within a dynamic, diverse and changing environment. Therefore, it is used system dynamics in formulating future Indonesian apparel industry strategy. The strategy formulation is conducted in several phases, which are Development of Qualitative Model, The Structure of Quantitative Model (Dynamic Modeling), Model Validity and Sensitivity Test.

1. Development of Qualitative Model.

Cause effect relationship as a success key to find competitiveness leverage in Causal Loop Diagram which is shown in Table 1.

Table 1
Cause Effect Relationship with Leverage

R1	Competitiveness, Demand, Production, Profit, Investment, Performance, Reputation, Competitiveness
R2	Reputation, Historical Relationship, Demand, Production, Profit, Investment, Performance, Reputation
R3	Production, Profit, Investment, Production Capacity, Production
R4	Production, Profit, Wage/Salary, Manpower Capacity, Production Capacity, Production
R5	Production, Profit, Investment, Manpower Capacity, Production Capacity, Production
B1	Investment, Supporting and Related Industry, Additional Overhead Cost, Profit, Investment
B2	Production, Manpower Capacity, Production Capacity, Production
B3	Investment, Supporting and Related Industry, Additional Cost, Profit, Investment

Source: Researcher's Findings

Then, cause and effect relationship of competitiveness decisive factors is plotted to Causal Loop Diagram (CLD).

2. The Structure of Quantitative Model (Dynamic Modeling).

The qualitative model needs to be converted into quantitative model, in order that simulation can be done. Therefore, it is required to change CLD variables into language of stock flow diagram (SFD) which is expressed in level, stock or state and flow. SFD model for Indonesian apparel industry is shown in figure 2 below.

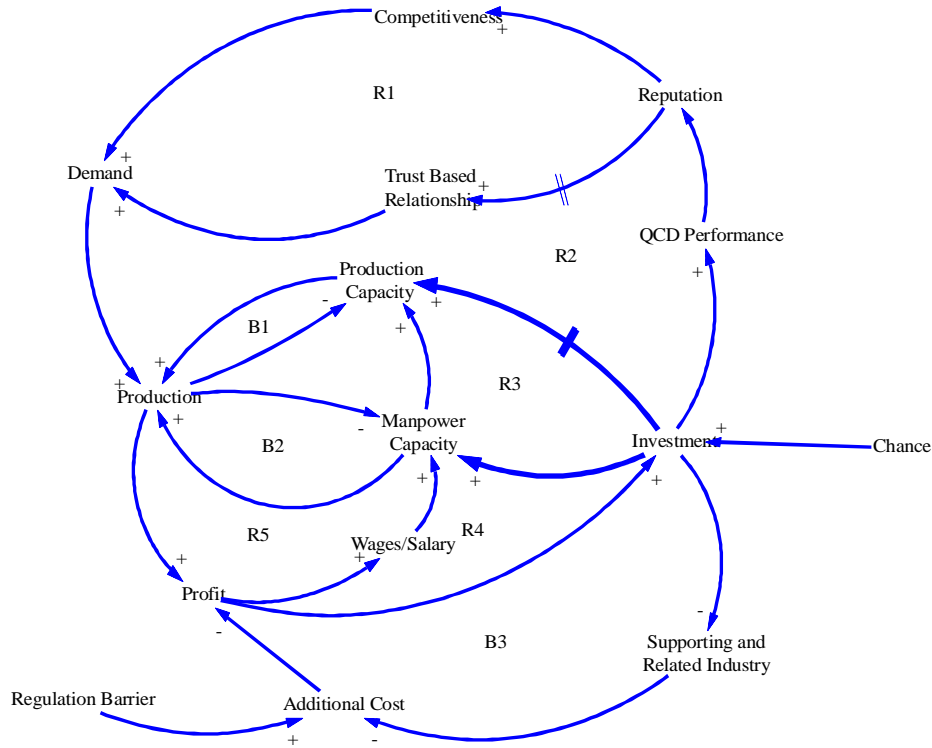


Figure 1: Causal Loop Diagram driving competitiveness

Source: Researcher's Findings

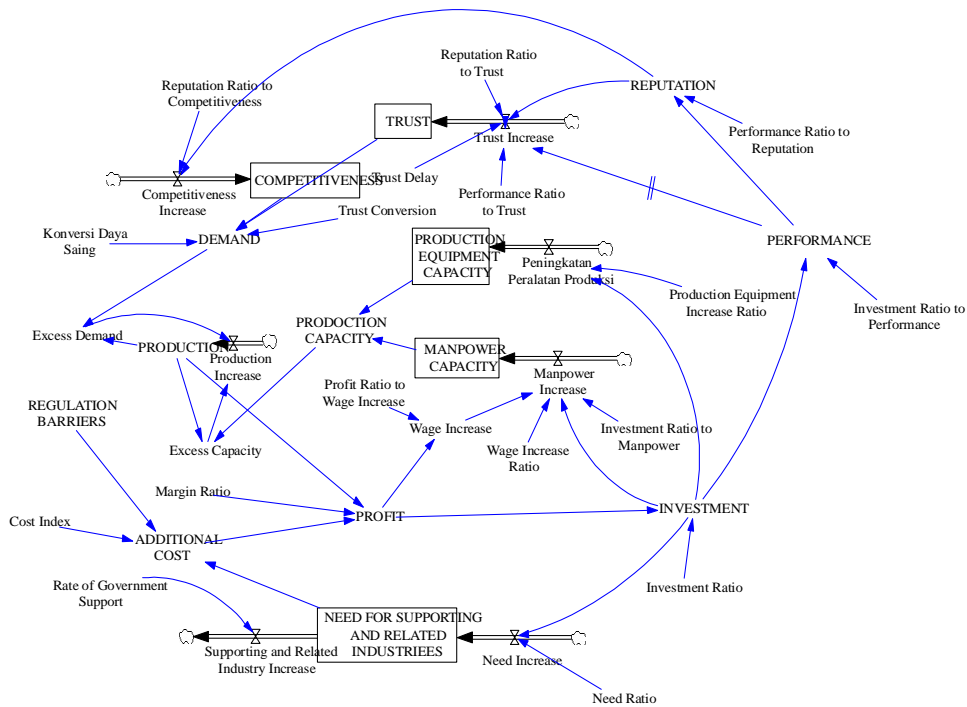


Figure 2: SFD Model of Indonesian Apparel Industry

Source: Researcher's Findings

In order that simulation could be done, we need to set the data used, which lie at a span from 2005 until 2015. Because the variables used generally qualitative data, they have to be converted to ordinal data, using the questionnaire. The data obtained from the questionnaire to be used in the simulation are displayed on Table 2.

Table 2
Data Collection from Questionnaire

No	Description	Value	No	Description	Value
1	Apparel Industry competitiveness		6	Supporting and Related Industry	
	Year 2005	6.06		Year 2005	5.65
	Year 2010	6.71		Year 2010	6.29
	Year 2015	7.06		Year 2015	6.41
2	Trust		7	Effect of Reputation on Competitiveness	7.59
	Year 2005	5.65	8	Competitiveness Growth Rate Apparel Industry	7.24
	Year 2010	5.94	9	Effect of Competitiveness on Demand	7.65
	Year 2015	6.18	10	Effect of Trust on Demand	7.65
3	Production Capacity		11	Effect of Reputation on Trust	7.59
	Year 2005	6.00	12	Production Capacity Growth Rate	7.00
	Year 2010	7.00	13	Effect of Manpower Capacity on Production Capacity	7.76
	Year 2015	7.24	14	Investment Rate	6.82
4	Manpower Capacity		15	Investment Effect on Performance	7.24
	Year 2005	6.29	16	Profit Margin Rate	5.94
	Year 2010	6.82	17	Ratio of Profit to Wage/Salary	7.18
	Year 2015	7.00	18	Increase Rate of Manpower	6.29
5	Compliance industri aparel		19	Utility Ratio of Manpower	7.35
	Year 2005	6.12			
	Year 2010	6.88			
	Year 2015	7.12			

Source: Researcher's finding

3. Model Validity

Test results on structure validity and output validity of the model show that the model is valid. This is shown by the results of mean absolute error (AME), where the average deviation of the simulation from actual below 10 percent.

4. Sensitivity Test

Sensitivity test aims to look at the extent to which built model responses if stimulation is done by making variable intervention or putting a certain value on variables or changing relations between variables. This test is done to look the factors which have the most influence in system structure. Test

is done by implementing a change in value by 10 percent to a constant factor. And the results compared with increases in reference variables. The called sensitive is the variable which becomes leverage of the system. Sensitivity test is done with 17 constant factors .The results of the sensitivity test are presented in table 3.

Table 3
Sensitivity Test Results

<i>No</i>	<i>Factor</i>	<i>Value</i>
1	Manpower Increase Ratio	116.654
2	Production Capacity Increase Ratio	114.316
3	Profit Margin Rate	114.088
4	Rate of Manpower Increase	114.058
5	Investment Effect on Performance	114.058
6	Profit Ratio to Wage/Salary	114.054
7	Competitiveness Ratio	114.058
8	Reputation Effect	114.052
9	Investment Delay	114.050
10	Supporting and Related Industry Rate	114.041
11	Trust Ratio on Demand	114.030
12	Competitiveness Ratio on Demand	114.029
13	Investment Ratio	113.806
14	Business Barriers	113.776
15	Production Capacity Decrease Rate	113.707
16	Time for Support Adjustment	113.090
17	Historical Relationship Delay	109.541

Source: Researcher's finding

From sensitivity test results there are 5 (five) out of 17 sub-system which have the most influence in the dynamics apparel industry competitiveness system, namely: sub-system capacity of manpower increase, and sub-system production capacity development. Two strategies to increase the competitiveness of apparel industry in the next five years are : (1) increase manpower capacity; (2) increase production capacity. The enhancement of supporting and related industries and the improvement of business environment do not change behavior over time (BOT) of the system, although it enlarges the profit for the entrepreneurs as the result of decrease additional cost. Even though the enhancement of supporting and related industries and the improvement of business environment do not change behavior over time (BOT) of the system, it is important to be done, because if the profit is larger, the interest of the entrepreneurs to invest will increase. These two activities are necessary, but not sufficient to increase competitiveness. It makes the two strategies, increase manpower capacity and increase production equipment capacity, more effective.

The increase of worker and professional depends on the availability of workers determined by interest and capabilities of the people to work in the sector. Interest of someone depends on the wages, while the wages are very significant to affect the production costs. Considering the market potential is very large, if

the labor regulation is improved to reduce the risk for entrepreneurs, then the entrepreneurs will have the interest to increase to the capacity of workers. Moreover, the interest of entrepreneurs can also be enhanced by giving incentives to those who do it. The size and kind of the incentives could be determined by conducting the survey to the entrepreneurs, so that the most optimum the incentives can be determined.

The Ministry of Industry had former program, called revitalization program. In this revitalization program, incentives are awarded to the companies, that invest, either to rejuvenate machinery/equipment or to increase the production capacity. The size of the incentive given is approximately equal to the value of the interest they had to pay if the company finances investment by the loan from a bank for 5 year installment with a lump sum system. The program had been very successful not only to encourage the entrepreneurs, but also to increase the trust of banking sector toward apparel industries.

E. CONCLUSIONS

There are eight factors out of nine factors from Cho's model influencing the competitiveness of Indonesian apparel industry, namely: (1) historical relationship based on trust; (2) business environment; (3) supporting and related industries; (4) workers; (5) entrepreneurs; (6) politicians and bureaucrats; (7) professionals (managers and engineers); (8) chance. At first, only two out of nine of factors function as competitiveness driver. But as a result of product upgrading to medium-up, there are another two factors become competitiveness driver. The success of product upgrading is caused by the existence of historical relationship based on trust which enables Indonesia apparel industry from buyers. This factor becomes the fifth factor driving competitiveness. In Indonesian apparel industry case, domestic demand regardless of its great potential is not competitiveness driver.

The competitiveness model differs from one country to another. There are also differences between sector competitiveness and national competitiveness and even for the same sector, for example industry sector, it differs from one kind of industry to another. There is no 'one size fits all' in the competitiveness model. This study is valid for Indonesian apparel industry. For example, Indonesian apparel industry is unique, because even though domestic demand has great potential, it cannot become competitiveness driver. In addition, the competitiveness leverage of Indonesian apparel industry, so that it can survive in global market even hit by lot of problems, is historical relationship based on trust. An apparel industry cannot be sufficiently developed simply by the availability of reliable human resources and good physical factors.

The value chain of governance pattern is relational, and the level of involvement is OEM. Since the value added of OEM is less than ODM and OBM, the stagnation of Indonesian apparel industry export is caused by the low value added besides the limitation of manpower and production capacity.

The development strategies of Indonesian apparel industry are to increase the capacity of manpower and the capacity of production equipment. Since demand is still larger than production, it is needed to encourage the entrepreneurs to enhance their production capacity. It can be done either by providing incentives for the entrepreneurs who increase their capacity or to enlarge their profit by reducing additional cost borne by the entrepreneurs.

The results of this study recommend for both the government and the apparel industries. First, since the former revitalization program of the Ministry of Industry was very successful, both to encourage

entrepreneurs to invest and to increase the trust from banking sector, it had better that government resumes it. In the implementation of the program, some modification is necessary, adjusted to the present situation. This kind of program could be extended to manpower in order to increase the interest of the entrepreneurs to invest for enhancement the capacity of manpower, both quantity and quality. In the context of apparel industries, since the competition gets tighter, in order to avoid being obsolete, apparel industries have to leave their comfort zone and start to plan to enter ODM and should discuss with the government to solve the barriers they face.

NOTES

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