ABSTRACT

THE PERFORMANCE OF INDONESIA's TEXTILE INDUSTRY Bernadette Robiani¹

Textile industry in Indonesia is still known as one of key indutries, eventhough for last five years, it also known as a sunset industry. The implementation of China-AFTA since January 2010, raised some arguments about the survival of this industry. The facts that for last some years imported textile from China showed an increased market share in domestic market. Most of raw materials that are used in this industry are imported from other countries such as China.. In order to have a complete perspektif about textile industry, this paper discusses about its performance. It is believed that a good industry's performance will determine its existence in the market.

Textile Industry performance measured by its Input Cost, labour Productivity and Efficiency. Data used are secondary data taken from Statistics Indonesia. Data showed that for those years, there were increasing in Input Cost because of increased in value of imported material, a relative constant labour productivity and an increasing in indutry efficiency.

¹ Lecturer in Faculty of Economics, Sriwijaya University. Member of Indonesia Economist Association

The Performance of Indonesia's Textile Industry

1, INTRODUCTION

Manufacturing industry in Indonesia shows an important role in the creation of national income, eventhough Indonesia is known as an agricultural country. The contribution of manufacturing industry had overcomed the contribution of agriculture sector during 1980 era. As a comparison in 1983 share of agriculture sector was 30% while manufacturing sector was 15,1% and in 1993, share of agriculture decreased to be 17,9% while manufacturing sector increased to be 22,3%),

SECTORS			S		
	2007	2008	2009	2010*	2011**
(1)	(2)	(3)	(4)	(5)	(6)
Agriculture, livestocks,	13,7	14,5	15,3	15,3	14,7
forestry &fishery					
Mining & quarrying	11,2	10,9	10,6	11,2	11,9
Manufacturing Industry:	27,1	27,8	26,4	24,8	24,3
Oil & Gas	4,6	4,8	3,7	3,3	3,4
Non Oil & Gas	22,4	23	22,6	21,5	20,9
Electricty, Gas and Water	0,9	0,8	0,8	0,8	0,7
Supply					
Construction	7,7	8,5	9,9	10,3	10,2
Trade, hotels and	14,9	14,0	13,3	13,7	13,8
Restaurant					
Transportation and	6,7	6,3	6,3	6,6	6.6
Communication					
Financial, ownership &	7,7	7,4	7,2	7,2	7,2
business services					
Services	10,1	9,7	10,2	10,2	10,5

 Table 1.1 Percentage Distribution of Gross Domestic Product at Current Market

 Prices by Industrial Origin, 2000

Source: National Income Statistic, Statistics Indonesia, 2012

*): preliminary figures

******): very preliminary figures

Table 1.1 above shows us the contribution of economy sectors to National Income / Gross Domestic Product (GDP) during 2007 – 2011. Manufacturing Industry has highest distribution during these years, eventhough it tends to decrease because of increasing role of other sectors such as trade, hotels and restaurant. The world market condition and the world domestic stability influenced the value added that created by manufacturing industry. In terms of labour absorption, in year 2010 agriculture sector absorbed, on the average, 40% of labour force while manufacturing industry absorbed , on the average 12%. As a comparison in year 2006, agriculture sector absorbed 44,4 % and manufacturing industry was 12,1%. This is unexpected condition if we related it to the dominant contribution of manufacturing industry to GDP Using value added per capita , Indonesia 's manufactring industry performed unsastified condition compare to ASEAN countries.

	Year/Period	Indonesia	ASEAN
MVA	2000-2005	5,16	5,85
Average annual growth			
rate (in %)	2005-2010	4,15	3,36
MVA per capita	2000	216,28	353,35
At constant (2000) US\$	2005	258,19	426,44
Price	2010	302,26	488,04

Table 1.2Comparison Manufacturing Value Added (MVA) ofIndonesia and ASEAN

Source: UNIDO, 2012

Table 1.2 above shows the comparison of MVA growth and per capita for ten years.

The MVA per capita of Indonesia is lower than its of ASEAN. It relates to two factors, the wage rate and the unemployment. The oversupply condition in labor market causes the wage rate tends to be stable (there is an increasing in minimum regional wage rate in minimum percentage). However, Indonesia MVA average growth shows a magnificent

growth compare to its of ASEAN. It deliveries a good investment prospect in manufacturing sector in Indonesia

In general, indeed, there are some classics problems in the industrial development in Indonesia such as the weak of industry linkages, undercapacities production, high cost production, uncompetitive prices, government regulation and law enforcement. These problems influence the performance and competitiviness of industrial sector.

Textile and Product Textiles (TPT) industry is one that has a potential but dilematic position in Indonesia. Basically, this industry may create high value added and has high linkages to other industries in economy. However, these few years, it is classified as a "sunset industry" and has low competitiviness in world market. Data from Table 1.3 shows the Revealed Comparative Advantage of TPT industry in year 2008. It is shown that Indonesia's TPT still has low competitiviness compare to India and China.

Countries	Product Textiles	Yarn	Textile	Garment
China	8,36	5,73	8,63	8,86
India	12,48	22,37	7,66	6,31
Indonesia	1,56	13,90	4,38	4,97
Thailand	2,62	4,13	3,21	2,24

Revealed Comparative Advantage TPT Industry Year 2008

Table 1.3

Source: UNIDO, Statistics Indonesia, Ministry of Industry, Processed

Some weakness of Indonesia's TPT industry that effect its competitiviness are prices of the product, design product, labour productivity, market penetration.

There are some policies and programs that had been implemented by government to increase the performance of TPT industry such as restructurisation for machines and equipment program, training programs for human resources and others, however she still need some more efforts.

According to Hasibuan (1993) the intermediate input cost will determine value added of one industry. The increase of intermediate input cost bigger than the increase in value of output will decrease its value added. Martin (1984) stated that variable cost will

influence the economies of scale of industry. The lower the average variable cost will increase the economies of scale and further will increase its competitiviness. Tarmidi (1988), Simarmata and Soesastro (1998) did research for some manufacturing industries in Indonesia and found that cost structure strongly influences the performance and competitiviness of industry.

This paper discusses the performance of TPT industry. Performance is defined as the result of structure and conduct of an industry. (Shepherd, 1990). Performance of an industry can be analyzed by its efficiency, labour productivity and profit. (Scherer, 1980). This paper analyzed the TPT industry's performance using variable input cost, labour productivity and efficiency. Data used are secondary data for year 2005 - 2009 that published by Statistics Indonesia. This data focuses on large and medium industry based on International Standard Industrial Classification for All Economic Activities (ISIC) ... Using 2, 3 and 5 digit ISIC code, data is collected and calculated for variables Primary Input Cost, Intermediate Input Cost, Total Cost, Labour Productivity and Efficiency. Using ISIC Code 5 Digit, TPT Industry can be classified into 5 industries: Fiber, Yarn, Textile Fabric, Garment, Other Textile Technical analysis that used is cross tabulation analysis.

II. PERFORMANCE of TPT INDUSTRY: Data and Analysis

This part will explain about the performance of TPT industry using input cost, labour productivity and efficiency. To describe Input cost I used ISIC Code 5 Digit. Input cost will analyze in two kind of cost, first is primary input cost that contains of expenses for labour, rent and depereciation. This expenses later creates value added of am industry. Second is Intermediate input cost that contains of raw and supporting material cost and energy cost.

II.1. Cost of Input

During 2005 – 2009, cost of input of TPT industry shows an increasing pattern Graph 1. below shows us the growth of Total Cost of Input.



Graph 1 Growth of Cost Of Input Textile and Product Textile Industry

On the average, during observation year 2005-2009, the highest total input cost is in garment industry and the lowest is in Other Textile Industry

Industry	Average Total Input Cost
Fiber	16752633396
Yarn	18287797502
Textile Fabric	36970464037
Garment	46539595814
Other Textile	1197737102

Table 2.1Average Total Input Cost of Industry

Source: Statistics Indonesia

Cost of TPT industry can be analyzed into two kind of cost; intermediate cost and primary cost. During 2005 - 2009, intermediate input cost shows an increasing pattern after had a big decreased in 2006 and caused the decreased in total input cost in this year, see Graph 2 below. On the average, 64% of total cost in 2005 came from intermediate input cost and decreased to be 54% in 2009. This percentage tells us that intermediate input cost takes a dominant portion to total cost and means that small portion for primary input.



Graph 2. Intermediate Input Cost of TPT Industry

On the average, the highest intermediate cost was in Other Textile industry and also gives the highest ratio to total input cost. The lowest intermediate cost was in Other Textile Fabric, however the lowest ratio is in Garment industry.



Graph 3. Ratio of Intermediate Input Cost to Total Input Cost

As mentioned before, intermediate input cost consists of raw material cost, supporting material cost and energy cost. There is an increasing ratio cost of raw and supporting material to intermediate cost during the observation year. In year 2005 the ratio is 0,90 increased to be 0,93 in year 2009. This graph 4 below shows the allocation of intermediate input cost among TPT industry



Graph 4.

Ratio of Raw and Supporting Material Cost to Intermediate Input Cost

There is a stable pattern for the ratio of raw and supporting material cost and also from energy cost among these five industries. The highest ratio cost of raw and supporting materials as much as 92% was in Garment and Fibre industry and it has lowest energy cost (10%). On the other hand, Yarn has the lowest raw and supporting material cost (88%) and highest cost energy (13%). Basically, the value of intermediate cost depends on the amount and the price of input th has been used. The amount of input used can be determined by firms's production decision, as mentioned in production theory. Number of firms in industry will also determines the demand of input. The price of input will influence the demand for the input. Using Satistics Indonesia data for years 2006 – 2010 and ISIC Code 17 and 18, the number of firms decreased as much as 14,93 percent from 4095 unit firms decreased to be 3563 units. The dominant decreased came from Textile Industry (ISIC 17) that consist of from 1286 unit firms down to 978 unit firms.

During the observation years, it is known that about 45% of raw and supporting material cost came from imported cost. The pattern of imported raw and supporting cost tends to be fluctuated. In 2005, average imported material cost was 47% and in 2009 was 46%. There was a small decreased during those years, however there is a big decreased in year 2006 - 2007 from 46% down to 40%.



Graph 5

Ratio of imported raw and supporting material cost to raw and supporting material cost

On the average, highest imported material cost is in Fibre industry as much as 56%, and the lowest was in Textile fabric industry as much as 39%.

The primary input cost for TPT industry is the differences between total input cost and intermediate input cost. The high portion of intermediate cost results to small portion of primary input cost. As mentioned before, primary input cost consists of expenses for labour, rent, depereciation and other expenses. Table 2.2 shows the ratio of Primary input cost to total input cost. On the average, there is an increasing ratio primary input cost during observation years from 36% in 2005 to 46% in 2009. The highest ratio is in Garment industry and the lowest is in Other Textile industry

	2005	2006	2007	2008	2009	Average
Fiber	0,23	0,34	0,68	0,24	0,59	0,42
Yarn	0,39	0,49	0,44	0,38	0,35	0,41
Textile	0.40	0.40			0.00	
Fabric	0,43	0,48	0,38	0,38	0,38	0,41
Garment	0,42	0,54	0,50	0,61	0,63	0,54
Other						
Textille	0,32	0,52	0,39	0,41	0,33	0,40
Average	0,36	0,47	0,48	0,40	0,46	

Table 2.2Ratio Primary Input Cost to Total Input Cost

The allocation of primary cost to labour expenses in TPT industry is not as high as expected. Table 2.3 shows us the ratio of labour expenses (wages) to primary input cost. On the average, during 2005-2009, Garment industry spent highest portion of labour expenses as much as 23%, while Fibre industry only spend 9%. On the overall, there is a decreasing ratio of labour expenses, whereas 21% in year 2005 down to be 15% in year 2009. The smaller portion of labour expense may indicates two things, first, the decreasing number of labour and second, low wage rate. The fact that there is a decreasing number of worker in TPT industry may explain this condition,

Source: Statistic Indonesia, Processed

	2005	2006	2007	2008	2009	Average
Fiber	0,13	0,09	0,09	0,12	0,04	0,09
Yarn	0,14	0,08	0,12	0,12	0,14	0,12
Textile						
Fabric	0,15	0,16	0,17	0,16	0,16	0,16
Garment	0,29	0,24	0,28	0,25	0,22	0,26
Other						
Textile	0,34	0,22	0,20	0,20	0,19	0,23
Average	0,21	0,16	0,17	0,17	0,15	

Table 2.3 **Ratio Labor Expenses to Primary Input Cost**

Source: Statistics Indonesia

As mentioned in table 1.2 before, the MVA per capita Indonesia is lower than it of ASEAN and it may be related to the condition that labour expenses is still not high enough.

II. 2. Labour Productivity

Labour productivity is defined as the ratio of value added to the number of paid workers. It indicates the employments capability producing goods. Table 2.3 shows labour productivity for TPT industry using 3 digit ISIC Code.

		2005	2006	2007	2008	2009
ISIC						
CODE	INDUSTRY					
171	Yarn and Textiles	47,838	75,295	84,04	72,065	104,109
172	Carpets	30,903	45,684	37,64	34,078	40,257
173	Knitting	50,559	43,776	47,884	59,57	60,17
174	Kapok	5,546	6,746	17,941	11,244	12,83
	Wearing apparel					
181	textiles	26,122	33,173	40,596	48,364	59,272
182	Wearing apparels for	18,537	22,03	14,424	59,884	6,111
Source	Statistics Indonesia					

Table 2.3 Labour Productivity in TPT Industry

Source: Statistics Indonesia

During observation years there is an increasing in labour productivity of TPT industry. On the average, the highest productivity came from Yarn and Textiles industry, as much as 76.6694 and the lowest productivity came from Kapok industry, as much as 10,8616. As mentioned in the definition, value added and number of labour will influence the productivity. Changing in both variables will determine productivity. Increasing in value added, assume number of labour constant, will increase labour productivity. Increasing in value added bigger than increasing in number of worker will result to higher productivity and means higher labour performance in one industry. During 2005 – 2009, there is a decreasing in number of labour/workers from 1129 people in year 2005 down to 948 people in year 2009, while value added increased from 38038 in year 2005 rose to 70769 in year 2009. This changing caused the increase in TPT labour productivity.

II. 3. Efficiency

Efficiency is defined as the use of minimum resources to achieve maximum results, or comparing the received input and output. In this paper, efficiency is measured by the ratio of value added to intermediate input cost. Higher ratio means the more efficient an industry.

	Efficiency in 111 muustry					
	2005	2006	2007	2008	2009	Average
Fiber	0,30	0,52	2,17	0,31	1,43	0,95
Yarn	0,63	0,96	0,79	0,61	0,54	0,71
Textile						
Fabric	0,75	0,91	0,60	0,60	0,62	0,70
Garment	0,71	1,20	1,00	1,54	1,69	1,23
Other						
Textile	0,47	1,09	0,64	0,71	0,50	0,68
Average	0,57	0,94	1,04	0,75	0,96	

 Table 2.4

 Efficiency in TPT Industry

Source: Statistics Indonesia, Processed

During observation years, there is an increasing efficiency in TPT industry from 0,57 in year 2005 increase to 0,96 in year 2009. On the average, the highest efficiency is in Garment industry, while the lowest efficiency is in other textile industry, see Table 2.4. This relate to the description of intermediate input above that Garment industry has low intermediate input cost and Other Textile industry has high intermediate cost.

III. Conclusion

The hypothesis of this paper is performance industry will effect the its competitiviness. From Part II, we have description of TPT industry's performance, **first**, there is an increasing cost of input; **second**, intermediate cost has dominant portion in cost of input and tends to decrease; **third**, about 90% of intermediate cost goes to raw and supporting material; **fourth**, about 45% of raw and supporting material is imported; **fifth**, the labour expenses portion is quite low; **sixth**, labour productivity is increasing; **seventh**, efficiency is increasing

The dependency to imported raw material, indeed will influence input sustainability and will effect to industry production. As mentioned before, TPT industry has strong backward and forward linkages, and therefore needs certainty for input. Since China and India country has double role in TPT industry, as the exported country for raw input and also as the producer of TPT product, both of them may have strong power to determine price of raw input. It put Indonesia's TPT in a dilematic situation.

It may conclude that the performance Indonesia 's TPT industry has not good enough to increase its competitiviness as long as dependency to imported input still high.

REFERENCES

- Hasibuan, Nurimansjah. (1993). Ekonomi Industri. Persaingan, Monopoli dan Regulasi. LP3ES. Jakarta
- Martin, Stephen. (1994). Industrial Economics. Economic Analysis and Public Policy. Second Edition. Macmillan Publishing Company.
- Scherer, F.M. 1980, Industrial Market Structure and Economi Performance. Second Edition, Rand Mc Nally, Chicago
- Shepherd, William G. 1990. *The Economics of Industrial Organization*. Third Edition, Prentice Hall, New York.
- Soesastro, Hadi. 1998. Daya Saing Industri Indonesia. Industri Elektronika. Perhimpunan Alumni Jerman.

Statistics Indonesia. Large and Medium Indicator, Some Years Publication

Tarmidi, Lepi. 1998. Daya Saing Industri Indonesia. Industri komponen Otomotif. Perhimpunan Alumni Jerman