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Characteristics of Small Medium Manufacturing Industries In the Era of ACFTA : case study from West Java

Gandhi Pawitana*

*Business Administration Study Program, Faculty of Social and Political Science, Parahyangan Catholic University, Bandung, Indonesia

Abstract

Market liberalization have created tight competition, including within ASEAN and China market, as represented in ASEAN China Free Trade Area – ACFTA agreement. The agreement implies that China’s products are freely distributed into Indonesian market. Hence, domestic products will lose competitiveness, particularly in the product price compare with the China’s. This article aims to explore characteristics of the small and medium manufacturing industry -- SMMI in the Province of West Java in era of ACFTA. Factor analysis was employed and resulted eight characteristics factors. Three main characteristics are comprised of competitiveness, production process, and business growth.

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Keywords: small and medium manufacturing industry, ACFTA, exploratory factor analysis, performance.

* Corresponding author. Tel.: +62-22-2032655; fax:+62-22-2035755
E-mail address: gandhi_p@unpar.ac.id.
1. Introduction

The progresses of manufacturing industry sectors are high enough following the trade, building construction, transportation, and electricity. Figure 1 shows statistics of percentage growth for each economics sectors, and the industry sectors indicates 11% of growth during 2008 (Statistik, 2008). Hence a small and medium manufacturing industry—SMMI sector is considered as a major contribution in a better employment opportunities, family income, and also domestic economic driver.

In 1998 a small and medium enterprises—SME have succeeded the economic crisis and provided a better employment opportunities for the peoples. The most contribution of the Indonesian SME was come from an agriculture sector rather than an industry sector as occurred in a new industrialize countries (NIC). Beside a potential contribution of SME, it needs to be understood that the SME also facing several constraint, such as limitation on capital, difficulties on market access, raw material with good quality and lower price, limitation of technology adoption, and labor skills.

Globalization and liberalisation of national market from the international business players have created a tight competitive condition. Free Trade Area (FTA) has become a regional trade model, including the ASEAN Free Trade Area (AFTA). Ariyasajjakorn, Gander, Ratanakomut, and Reynolds (2009) stated that ASEAN is one of strategic regional economics model which have been studied extensively.

Small medium manufacturing industries have been attract a serious attention from many parties, particularly the government. They have proven a surviving power even in the global economic conditions. The global economic crises have caused a closure many big, but on the other hand the SMMI have shown a substantial growth. One of the reason is business diversification or shifting into a different business. The following Figure 1 (b) shows that the SMMI are a major contributor of the GDP.

The ACFTA agreement commence in 2010, then the China’s product will be freely entering the domestic market. The China’s industries are recognized as having an efficiently operations and high productivity. These conditions provide them a power of competitiveness and motivation to expand into external international market with the lower prices. On the other hand, Indonesian domestic industries is loosing their competitiveness, specially in term of selling price compare with the China product. This matter subsequently
affect the SMMI, which demanding a competitiveness power.

Generally this paper aims to explore performance factors of the SMMI at West Java province in the era of ACFTA. The output will indicate some characteristics of SMMI which be considered importance by the ventures in facing the ACFTA agreement.

1.1. Literature study

Government give a serious attention on the SME sector. Indonesian Statistics Office (Badan Pusat Statistik – BPS) provides information that this sector has absorbed a fairly large labor force (41% per 2008). This sector also has a major contribution into national export value after oil and gas sector. The SME is defined by three main characteristics, which is asset value, sales volume, and number of employee.

Small businesses are defined such as they have annual sales volume below one billion IDR, assets below 200 million IDR. Meanwhile, for the medium businesses have assets between IDR 200 million up to IDR 10 billion. Other definition of the SME is based on number of employee, such as micro industries have 1-4 employees, small industries have 5-19 employees, and medium industries will have 20-99 number of employees (Statistik, 2008). Regardless of this categorization, it has been recognized a potential role of SME as economic driven of the national economics.

There are four free trade area (FTA) which are currently discussed and studied mostly, those are East Asian FTA (including ASEAN), ASEAN-China, ASEAN-Japan, and ASEAN-Korea. Kitwiwattanachai, Nelson, and Reed (2010) discussed that East Asian FTA has a great potential to contribute in boosting a welfare of the regional economy. Others also mention about the ASEAN-China as another potential market, such as Zhang, Cooper, Deng, Parker, and Ruefli (2010), Batra (2007), Tongzon (2005), Devadason (2011), Park, Park, and Estrada (2009), and Wattanapruttipaisan (2003).

Zhang et al. (2010) stated that a rapid growth of the China economic was driven by a success of entrepreneurship. The authors have mentioned three factors that promote the advancement of China industries, which is a shifting of farmers into entrepreneur, government official into entrepreenur, and an overseas engineers into entrepreneurs. Although the China industries are initially considered as follower or a late comer, but some internal factors stimulate the rapid growth, such as inovation and marketing ability (Eng & Spickett-Jones, 2009; Guan, Yam, Tang, & Lau, 2009).

Distribution of product and services, peoples mobilization, overseas investment are some factors those stimulate a regionalism among countries. This is a symptoms within the ASEAN-China Free Trade Area agreement. An agreement which is pushed to create a trading region in the Asia-Pacific. A trading agreement between ASEAN and China were actually effective since 1996, as acceptance of China in the 20th ASEAN Ministrial Meeting – AMM at Jakarta (Oratmangun, 2000). One of the agreement was set in the area of economic, politic, and telecommunications.

Keh, Nguyen, and Ng (2007) conducted a study an effect of entrepreneur orientation and marketing information toward financial and non financial performance of the Singaporean SME. The result indicated a role of entrepreneur orientation about acquiring market information and direct effect toward company’s performance in general. Meanwhile, Wilkinson and Brouthers (2006) focused into the SME which have export orientation, which involved in trade exhibition. An empirical study indicated that export promotion services provides a positive contribution into export performance. On the other hand, Wincent, Anokhin, and Örtqvist (2010) have done a study that networking factor gives a positive contribution towards a better inovation performance of the SME. Similarly, Zeng, Xie, & Tam (2010) also indicated an importance of networking in increasing the performance. A networking is defined vertically or horizontally, such as with a customer, supplier, other companies, research institution, university, or government.
1.2. Methods

Performance indicators are defined accordingly in mapping SMMI performance. Tambunan (2002) listed a few factors of competitiveness advantages, such as technology, human resources advantages, efficiency and effectiveness, product quality, promotion, economic scale, business network, capital, and infrastructure. Vickery, Droge, and Markland (1993) also indicated some operational performance indicators, which can be used to evaluate the companies performances. The indicators are mentioned as well in Vanany (2002). Pawitan, Chandra, and Munthe (2011) defined some indicators such as ventures performance, ventures competitiveness, capital and financial, raw material, production and operation, marketing, and distribution. Each indicator was broken down into several sub indicators and totally into 69 items.

This research would explore some factors which have contribution toward the SMMI performance in the era of ACFTA. Exploration was done by classifying a set of indicators into factors, using exploratory factor analysis.

1.3. Data

Data were collected from a prominent SMMI cluster area, such as within a region of Bogor, Bekasi, Purwakarta, Cikampek, Cianjur, Sukabumi, Garut, Ciamis, and Tasikmalaya (Figure 2). The sample was taken using purposive sampling and proportionally for each region. Sample size and geographical region were shown in Table 1 and Figure 2, respectively.

<table>
<thead>
<tr>
<th>Region</th>
<th>Freq</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bekasi</td>
<td>12</td>
<td>2.7</td>
</tr>
<tr>
<td>Bogor</td>
<td>50</td>
<td>11.4</td>
</tr>
<tr>
<td>Ciamis</td>
<td>57</td>
<td>13.0</td>
</tr>
<tr>
<td>Cianjur</td>
<td>50</td>
<td>11.4</td>
</tr>
<tr>
<td>Cikampek</td>
<td>77</td>
<td>17.5</td>
</tr>
<tr>
<td>Garut</td>
<td>60</td>
<td>13.7</td>
</tr>
<tr>
<td>Purwakarta</td>
<td>58</td>
<td>13.2</td>
</tr>
<tr>
<td>Sukabumi</td>
<td>50</td>
<td>11.4</td>
</tr>
<tr>
<td>TasikMalaya</td>
<td>25</td>
<td>5.7</td>
</tr>
<tr>
<td>Total</td>
<td>439</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 1. Sample size per region.

![Figure 2. Research area the West Java Province](image)

Table 2. Description of the data

<table>
<thead>
<tr>
<th>Industry sectors</th>
<th>Count and Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Textiles ind., leather and soles</td>
<td>95 (21.6%)</td>
</tr>
<tr>
<td>woods and others forest prd</td>
<td>78 (17.8%)</td>
</tr>
<tr>
<td>papers and printed stuff</td>
<td>29 (6.6%)</td>
</tr>
<tr>
<td>steel industries</td>
<td>61 (13.9%)</td>
</tr>
<tr>
<td>building and non steels</td>
<td>36 (8.2%)</td>
</tr>
<tr>
<td>transprt., machinery, and tools</td>
<td>30 (6.8%)</td>
</tr>
<tr>
<td>handcraft</td>
<td>64 (14.6%)</td>
</tr>
<tr>
<td>others</td>
<td>44 (10.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>437 (99.5%)</td>
</tr>
</tbody>
</table>
2. Result

The SMMI of the West Java Province has a venture mostly in the sector of textiles, leather, and soles industries, follow by wood product, handcraft, and steel product. They covered almost 80% of the SMMI. These sectors are also mostly affected by the product from China, such as in textiles industries. In the following session, it will be presented some figures of SMMI profiles and then their characteristics.

![Figure 3. Omzet and number of employee.](image)

2.1. Profil of Small and Medium Enterprise

![Figure 4. Number of employee and length of business](image)
Figure 4 and 5 shows a profile of the SMMI in West Java province, it is shown that the ventures have a small number of employee, and have no legal status with more than 5 years old in running the business. The ventures were setted up cause of family needs. These profiles have advantages and disadvantages. In one side, the peoples can take advantages in creating businesses easily, without any complicated prerequisite. The peoples can do business with any variation of product type, quality, place. But on the other hand, the disadvantages occurs when the businesses are growing and needs more capital or financial support. The bank sectors are not possible to give support because of lack of legal status. Moreover, innovation and quality of the product become non competitive.

![Figure 5. Legal status and motivation of business](image)

2.2. Era of ACFTA agreement

Agreement on ASEAN regional trading have been implemented for a while, since the ASEAN free trade area was established in January 1992. Heng and Gayathri (2004) noted that Vietnam, Cambodia, Laos, and Myanmar have shown a potential emerging market within the region. It also a rise of East Asia region as the most preferred free trade area, such as East Asian Free Trade Area (EAFTA) agreement (Kitwiwattanachai et al., 2010). The EAFTA includes ASEAN countries, China, Japan, and Korea. However, in the South East Asian region itself also creating a free trade area with China, which is Asean China Free Trade Area – ACFTA. The agreement intend to remove import tariffs on commodity trade with each other by 2010 (Kitwiwattanachai et al., 2010).

Seriousness of China to in taking an agreement with ASEAN was shown by signing the Treaty of Amity and Cooperation in 2003. Both side agreed in keeping stability of the Asia region. In the November 2002, China and ASEAN established an early agreement to implement free trade in the region (Marcello, 2009). The cooperation agreement was proceeded by signing Framework Agreement on comprehensive Economic Cooperation Between The Association of Southeast Asian Nations and The People’s Republic of China (ACFTA) at Kamboja in 2004 (Direktorat Pemasaran Internasional, 2006). The agreement was aimed to strengthening cooperation between ASEAN dan China, and implemented a free trade by abolishment tariff and duty.
ACFTA market is covered one third of the world market, which is involving 1.9 billions peoples, with the GDP approaching USD 6 billion, and the trading growth on average 30% (Pawitan et al., 2011). Pawitan et al. (2011) stated that for Indonesia, China is a target export country number five, after EU, Japan, USA, and Singapore. A trading value Indonesia-China increasing on average 17%. The Indonesian export growth into China before the ACFTA was 14.15%, meanwhile the import was 21.1. Indonesia export value into China values at 9.8%, but the import is 14.4%. The Indonesian government should take into account this unbalance condition, by giving more attention into development of the SMMI. As shown in Figure 6, the market coverage of the SMMI mostly are for domestic market, and the competitors are mostly come from the same Indonesia product itself.

2.3. Characteristics of SMMI in the era of ACFTA
2.4. Performance factors of the SMMI

Performance factors of the SMMI were defined by a set of indicators of the business performance, competitiveness power, financial and capital aspect, production process, marketing, and distribution. Exploratory factor analysis was done.

Exploratory factor analysis reveal a result of eight (8) principal factors. The eight factors indicates characteristics of the SMMI performances in the era of ACFTA, which is

a) Factor 1 indicates competitiveness aspect, which includes consideration of the China's products are a major competitor in terms of better design, cheaper, bigger volume, easier to access. The respondents have mentioned some obstacle in facing the competition, which is in the aspect of financial and capital, rising of the electricity cost, fuel and oil, distribution cost, machinery, payment system, raw material sources, and infrastructure.

b) Factor 2 indicates a production aspect, which includes availability of human resources in developing information technology, IT implementation, advertisement of the product.

c) Factor 3 indicates valuation of a venture performance, which includes venture growth, profit, number of customer or job order, and also volume of sales.

d) Factor 4 indicates a negative perceptions of the China's products, which includes a consideration as competitor that reduce a profit and sales volume. This condition is occurred because constraints in IT implementation, a lack of raw material provision, and a lack in upgrading or modernization of the machinery.

e) Factor 5 indicates product developments, which includes innovations and product diversity.

f) Factor 6 indicates financial and capital, which includes sources of financial support or loan, rate of the loan, and confidence from the bank sector.

g) Factor 7 indicates a marketing aspects, which includes an opportunities into international markets, and a participation chance in international exhibition.

h) Factor 8 indicates a production aspect, which includes processing technology, and raw material procurement with a low cost.

3. Discussion and conclusion

However, businesses in this global era will always be required to follow or moreover have to precede the changes associated with the external environment. Controlling toward the external environment should be done by a creative manner, hence it produces a product, processes, technology, or even an innovative management. Furthermore, it is also needed a quick and correct response.

The SMMI have some uniqueness with the following strength, (1) absorb a labor force and in micro level would reduce an unemployment; (2) a small capital and in macro level would motivate an investor to put an investment within the SMMI; (3) SMMI would reduce indirect cost or overhead cost, hence it can produce a cheaper product with a competitive advantages in international market; (4) the SMMI is the most supple in selecting a location of the venture operation. These uniqueness and strength would give a benefit at a macro level, which is the venture actors may broaden the distribution network, and also shorten a distance between a producer to the retail market.

Then it may be derived a recommendation which would be strengthening a capacity of the SMMI, such as (1) increasing a motivation for competition; (2) provide a better access to the financial support; (3) provide skill and capacity for IT implementation; (4) provide a capacity in developing new product using innovation and better quality; (5) open an opportunity to access international market; (6) provide a better access to the raw materials.
Acknowledgements

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