

Readiness of Indonesian Companies for ASEAN Economic Community (AEC) - Preliminary Findings from Automotive and Garment Industry

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Abstract

Indonesia needs to set up its best effort to prepare for the ASEAN Economic Community (AEC) implementation in 2015. This paper attempts to fill the gaps in the current literature by exploring the readiness and preparation for AEC implementation in automotive and garment industry in Indonesia through literature review and survey. The survey explores the degree of awareness of the companies in both industries regarding the potential benefits and loss of AEC. The paper's contributions are twofold. First, it reveals the fact that some industry players in Indonesia are not yet prepared for the AEC. The automotive companies are mostly small non-authorized workshops that appear to have no understanding of AEC and the potential benefits and loss of AEC, and they see no potential for supply chain redesign. The garment industry appears to be more aware of the potential benefits and loss of AEC and have started preparing for the implementation. The second contribution is to the government of Indonesia. Both industries emphasize the needs for the government to identify the potential scenarios and conditions in order to help them prepare for the implementation of AEC. This is something that the government must really focus on to succeed in the AEC era.

Keywords

ASEAN Economic Community (AEC), Automotive, Garment, readiness, Indonesia

1. Introduction

In 2015, the Association of Southeast Asian Nations (ASEAN) countries proclaim to transform into the next stage of an economic era by having a single market and production base called ASEAN Economic Community (AEC). AEC is an economic integration in ASEAN countries in order to achieve "a stable, prosperous and highly competitive ASEAN economic" (Institute of Southeast Asian Studies, 2012). In short, AEC is a free trade in Southeast Asia region. The principle of AEC itself is based on four pillars: 1) a single market and production base, 2) highly competitive economic region, 3) equitable economic development and 4) full integration in global economy. Additionally, there will be an elimination of tariffs in the sense of having free flow of goods/services/investment capitals among ASEAN countries. Some sophisticated procedures related to customs will also be streamlined.

The implementation of a single market and production base will direct ASEAN countries to the five core elements: a) free flow of goods, b) free flow of services, c) free flow of investment, d) free flow of capital and e) free flow of skilled labor. These will lead to a transformation in the way of doing business in ASEAN region and therefore, there is a need to reconsider the logistics and supply chain system for ASEAN countries in general and in specific, for each ASEAN country (Banomyong, 2011).

Among other ASEAN countries, Indonesia plays a pivotal role in the ASEAN region due to several reasons. First, Indonesia with a population of over than 200 million is a country with the biggest population in ASEAN and thus, offers a huge and potential market for ASEAN countries. Second, the relative increase of Indonesia's GDP from year to year [6.2% to 6.5% in 2011, 6.5% to 6.1% in 2012 and predicted from 6.1% to 6.3% in 2013 (The World Bank, 2012)] contributes to the economic growth in ASEAN region. Third, due to the stability of economy, the abundance number of natural resources and a better deal of workforce in term of quality and salary, Indonesia offers a good opportunity for investment. Thus, Indonesia needs to set up its best effort to prepare for the AEC in order to obtain competitive advantages and at the same time gain the most benefit from AEC integration.

Several studies related to Indonesia's preparation for AEC have been conducted. The Indonesia government has established a blue print for AEC participation (President of Indonesia Instruction No.11, 2011). However, to date there have not any publications on the progress of the blue print implementation. Furthermore, most of the studies focus on Indonesia's general preparation for AEC towards a global competition. None of the studies explores the readiness and preparation for particular industry for the AEC implementation especially the supply chain of the industry. It is important to assess to what extent the players in the industry understands the potential benefits and loss of AEC implementation.

Furthermore, a more specific issue is to understand the potential scenario that the industry must encounter following the implementation such as the potential of supply chain redesign. Previous studies has reported significant impacts of a single market introduction on the companies supply chain (Stock and Lambert, 2001, ch. 14; Bookbinder and Tan, 2003). The impacts of single market introduction include fostering productivity growth (Mahlberg and Url, 2010), imposing costs on third countries (Dür, 2011), serving as an engine for employment (Rueda-Cantuche et al., 2013). The completion of single market implementation should be a rolling program enacted by commission committee and government in order to achieve its potential benefits (Harbour, 2012). Thus, it requires political guidelines to lead the implementation fully engaging all stakeholders, including local governments, and regional committee (Monti, 2010), and as well as regulatory enforcement actions (Danisewicz et. al, 2013).

This paper describes the finding obtained from the initial part of our research. First, literatures are perused in order to obtain insights on the impact of previous single market introduction i.e. NAFTA and the European Union. According to these literatures, lesson learned from the single market introduction is highlighted. Then we conduct surveys to companies to understand the degree of awareness of the Indonesian automotive and garment industry regarding the potential benefits and loss of AEC. Based on these findings, we can identify the potential issues that need to be addressed further by the different stakeholders including the company, industrial organization and government. At the same time, further areas that need to be investigated are highlighted.

2. A Single Market Implementation

This chapter provides a literature review that covers the blueprint of AEC, the implication of one of AEC pillars and the role of government to support the success of AEC implementation.

2.1 The Need of Awareness

The success of AEC implementation involves the integration of various stakeholders including government, business communities and people of ASEAN (ASEAN, 2008). However, the issue of AEC implementation is not yet widely known in Indonesia. According to the opinions of Ministry and Leading Industries, Indonesia is not fully ready for the implementation of AEC (Liputan 6 News., 2013; Investor Daily Indonesia., 2013). In addition, most of Indonesian people including small and medium enterprises are unaware about AEC and its implication. Considering that awareness is one of the drivers for the success of AEC, we include the awareness of AEC as one of our constructs. Since AEC could bring positive and negative impacts for a business, we elaborate the construct into several questions that purposely figure out the opinion of players in the industry regarding the potential benefit or loss the AEC will bring to them.

2.2 Supply Chain Redesign following a Single Market Implementation

According to the AEC Blueprint, the pillars that drive the ultimate goal of AEC consist of four pillars, as described in

Figure 1. These pillars represent milestones and accomplishment for realizing the goal of ASEAN as a strong and integrated economic region. Since the implementation of AEC will bring many transformations in term of social, economic and politics, each ASEAN member is stipulated to undertake strategic actions following these pillars.

However, the first pillar—a single market and production base—is a pillar that will directly influence many industries both manufactures and services. Learning from the implementation of a single market in European Union (EU) in 1992, the Single Market has brought substantial changes in the European economy such as increasing competition between companies, a wider range of products and services available at lower prices even though in national markets, cheaper and faster delivery of goods and greater mobility for workers. In addition, the European economy has also experienced restructuring in its market by an increasing number of mergers and acquisitions. All

of those changes are actually the result of microeconomic effects and the redesign of production and trade structure in the European (Community, European., 1996). In other words, the flows of goods or services from production until the delivery process or called the supply chain should be redesigned following the implementation of a single market.

In addition, Stock and Lambert (2001) stated that following the creation of a NAFTA and European Union there has been a trend for relocation of production and operation facilities. They described that prominent North American manufacturers, retailers and logistics service providers adjusted their strategies to capitalize the opportunities of NAFTA. Sourcing strategies are those that are mostly revised with the tendency to move away from offshore vendors to suppliers in North America. Similarly, post EU implementation a lot of manufacturing companies have relocated and the Netherlands is where half of the DC in EU is located. Again, there is a significant change in the design of supply chain.

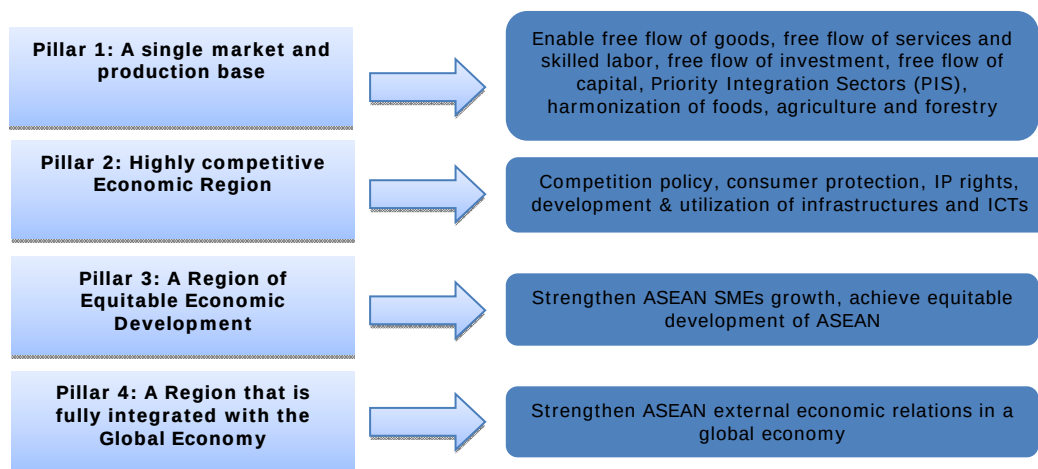


Figure 1 AEC Pillars (ASEAN, 2012)

Considering the above explanation, supply chain redesign is one of our constructs in this research. This construct is then expanded into several questions following Chopra and Meindl (2007) view on supply chain design. They stated that supply chain design covers the issues from location, role of facilities and the use of outsourcing.

2.3 Why Government Involvement Matters

As explained earlier, a single market implementation can bring positive consequences as a result of eliminating barriers in trading. However, there is also a threat where the elimination of barriers could result in a “re-segmentation of national markets via anti-competitive behavior” (Community, European., 1996). Learning from the implementation of single market in EU, competition policy set up by government is required in order to lessen the danger of cartels, the misuse of dominant position, and other anti-competitive behaviors. In addition to that, the blue print of AEC also emphasizes to the role of government to take strategic actions for the accomplishment of the four pillars of AEC.

As for Indonesia case, the President of Republic of Indonesia also responded to the AEC blueprint by issuing the Instruction of President No. 11 in 2011. This instruction stated that each concerned Ministries should take necessary actions based on its functional areas and authorities following the AEC Blueprint (President of Indonesia Instruction No.11, 2011). In relation to the critical role of government to succeed the AEC implementation, we also include government’s role for AEC as one of our constructs in this research. This construct is elaborated into a question that is aimed to figure out the expected role of government from industry’s point of view.

3. Methodology

In order to achieve the objective of this study, an exploratory study using survey instrument is employed.

3.1 Sample Selection

Ideally, the supply chain of all key industrial sectors in Indonesia needs to be explored. However, considering the research scope and time, the industry is chosen by taking into account these considerations: 1) the contribution of the industry to export and 2) the importance of industry in relation to the sustainability of other industry. The Indonesia automotive industry with over 20,000 companies ranging from assembly, component maker, authorized non-authorized dealers and workshops that employs over 200,000 people (Frost and Sullivan, 2011) is an important sector for Indonesia. Garment industry is part of textiles industry which accounts for 7% of total exports in 2010 (OECD, 2012). Those considerations lead us to choose garment and automotive industry as pilot industrial sectors in this research.

The number of sample used in this study is 18 respondents for garment industry. Most of the respondents are the owner of small-to-medium size of garment companies that are mostly located in East Java and Bali. As for automotive industry, there are 7 respondents who are typically the owner of non-authorized automotive component manufacturers located in East Java areas.

3.2 Survey Instrument

As suggested previously there are several main constructs to be investigated in the preliminary study: the awareness of AEC, the role of the government, and the potential for supply chain redesign. These constructs are detailed further into the following questions.

- a) Awareness of AEC
 - Potential benefit: *When AEC is fully established, what benefits will it bring to your organization?*
 - Potential loss: *When AEC is fully established, what loss will it bring to your company?*
- a) Government's role for AEC: *What would your suggestion(s) for your local government regarding the AEC integration?*
- b) Potential supply chain redesign
 - Company's role: *When AEC is fully established, what are the possible roles that your organization will undertake?*
 - Company relocation: *When AEC is fully established, how realistic will the relocation or expansion of your organization?*

All of the 25 respondents were given a questionnaire in relation to the above questions.

3.3 Reliability and Validity Test

Before analyzing the finding, a reliability and validity test are conducted using SPSS. Reliability is used to check the consistency of our test or survey while validity test is used to ensure that our test or survey correctly measures what we aim to measure. For reliability test, we rely on Cronbach's Alpha to check internal consistency, that is, the measure of how close the relation between items. We use KMO (Kaiser-Meyer Olkin) to test the validity in term of the sufficiency of sample. A sample is called acceptable if it has a value more than 0.5; mediocre when the KMO is between 0.5 and 0.7; good when the KMO is between 0.7 and 0.8; great when the value of KMO is between 0.8 and 0.9 and superb when the value of KMO is above 0.9 (Kaiser, 1974).

Reliability Statistics		KMO and Bartlett's Test	
Cronbach's Alpha	N of Items	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.513
.896	18	Bartlett's Test of Sphericity	Approx. Chi-Square
			422.772
			df
			153
			Sig.
			.000

Figure 2 Reliability and validity check for garment industry

Figure 2 depicts the result of reliability and validity tests for garment industry. Considering that the satisfactory quality of measurements occurs when Cronbach's Alpha has a value higher than 0.5 (SPSS, 1998), we conclude that the garment's data is reliable since the Cronbach's Alpha is 0.896. This value explains that the correlation between items in Garment's data is quite satisfactory. As for the validity, the above figure shows that KMO has a value more than 0.5 which indicates that the sample is adequate.

Reliability Statistics		KMO and Bartlett's Test		
Cronbach's Alpha	N of Items	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		
.913	7			
		Bartlett's Test of Sphericity	Approx. Chi-Square	293.520
			df	21
			Sig.	.000

Figure 3 Reliability and validity tests for automotive industry

According to Figure 3, the correlation between items in automotive industry's data is also sufficient. In other words, the data is reliable enough based on the value of its Cronbach's Alpha (i.e. more than 0.5). In term of validity, the KMO has a value between 0.6 and 0.7, which indicates that the sample is mediocre. Since the reliability and validity tests of both industries show positive result, we continue our research by conducting the statistical analysis.

4. Findings

Data collection is done by surveying companies in automotive and garment industry in Indonesia. In the automotive industry we obtained results from 7 companies where 43% of this is auto assembler and 57% produces auto components. Most of these companies are located in East Java (57%), 29% is from West Java and 14% is from DKI Jakarta. In terms of annual sales, 29% of the respondent has annual sales less than IDR 2,000,000,000, 14% has an annual sale between IDR 2,000,000,000-IDR 8,000,000,000, while 14% has an annual sale over IDR 8.000.000.000. Three respondents prefer not to mention their annual sale due to company policy.

For garment industry, we conducted surveys over 18 companies out of which 89% of the total companies produce finished goods. Respondent mostly come from East Java (56%), while the rest comes from Bali (28%) and West Java, Sumatra, and DKI Jakarta. Most of these companies have an annual sale less than IDR 2,000,000,000 (72%); while only 11 % of all respondents have an annual sale more than IDR 8,000,000,000, and two respondents from this industry did not state their annual revenue during data gathering.

4.1 Awareness of AEC in Indonesia Automotive and Garment Sectors

The first aspect explored in the survey is the role of government in AEC integration. Comparing both sectors as seen in Figure 4 and Figure 5 in relation to the role of government, the automotive and garment companies emphasised that the government should take all possible efforts to expedite the implementation of AEC by evaluating possible situations or scenarios after the AEC integration and establishing an expert team to assist its implementation. Unlike the automotive industry that expect more the government to promote low interest loan for organization to improve competitive potential (see Figure 5Error! Reference source not found.), only one respondent from the garment manufacturer expects low interest loan mechanism.

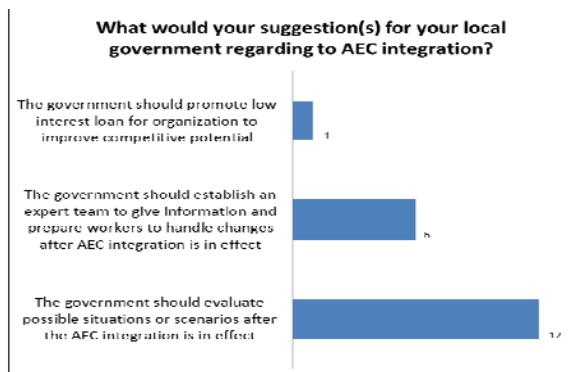


Figure 4 The role of government expecting by garment companies in preparing for AEC implementation

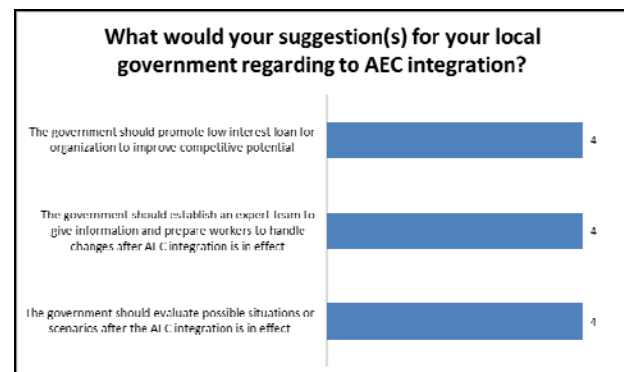


Figure 5 The role of government expecting by automotive companies in preparing for AEC implementation

The next aspect explored in the survey is Indonesian companies' awareness of AEC, including the potential benefits and loss of AEC implementation. It is surprising that most of our respondents from the automotive companies see no potential benefits from AEC implementation. Furthermore, according to the survey result, all of the respondents

think that AEC will bring greater competition, and thus reduction of market share. For these companies, the implementation of AEC will eventually pose a threat to the automotive industry rather than strategic opportunities for increasing market and obtaining highly skilled labor force. They did not see options for expansion, and they did not expect any role change in the organization. These companies have not prepared anything for the upcoming AEC integration.

In term of potential benefits and losses of the AEC implementation, slightly different results were obtained from the garment industry compared to automotive industry (see Figure 6 and Figure 7). Respondents from garment industry appear to have more awareness of the potential benefits and loss of the AEC. Figure 6 shows the benefits respondents in garment industry expect to see after AEC is fully implemented. Most of respondents (13 out of 18 respondents) think that they will take the advantage of the free of flow of goods, which means that their products can freely penetrate other ASEAN market. However, this is also perceived as a threat because at the same time other manufacturers from ASEAN countries can also sell their product freely to the Indonesian market.

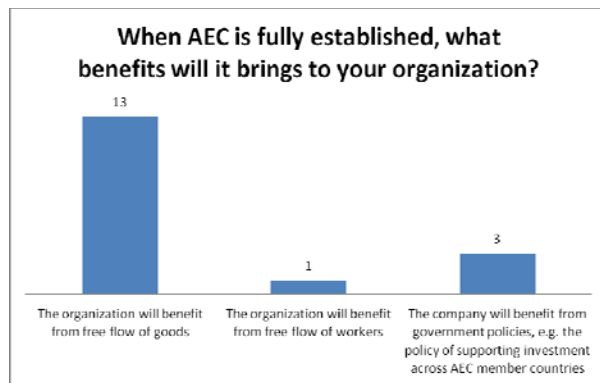


Figure 6 Benefits of AEC implementation according to the garment industry

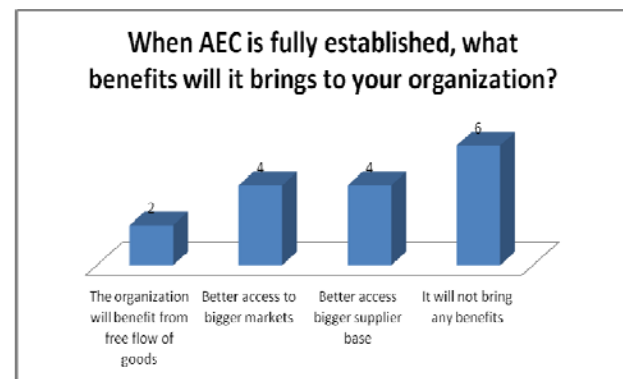


Figure 7 Benefits of AEC implementation according to the automotive industry

In term of the impact of AEC to industries, there is still quite big hesitancy toward the implementation of single market and production base pillar. Based on Figure 8 for garment industry, most of respondents (71%) think that this poses threat to their industry, which are highly competitive in nature, and single market means greater competition and this may cause reduction of market share. There are also 23% of the respondents think that there is a potential loss due to currency exchange following AEC implementation. All of the automotive companies see the threat of reduction of market share after AEC implementation (see Figure 9).

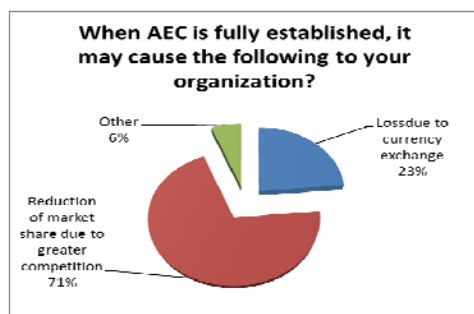


Figure 8 Expected losses due to AEC in the garment industry

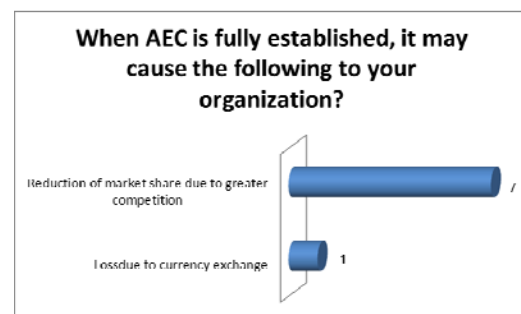


Figure 9 Expected losses due to AEC for the automotive industry

In term of preparation towards AEC implementation, unlike respondents in the automotive sectors that has not prepared anything for the AEC (see Figure 11), Figure 10 shows that over 18% of the garment respondents have prepared a team responsible for planning strategies of logistics and supply chain for AEC integration, while others might have been preparing by following seminars and activities provided to create awareness toward AEC

implementation (35% from total respondents). However, there is still a big portion of the respondents (41%) that have not yet prepared anything for AEC participation.

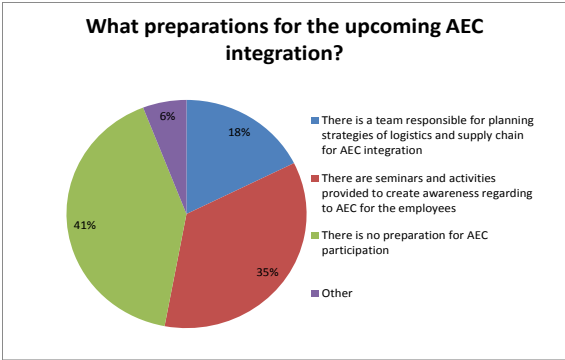


Figure 10 Most of the garment companies have prepared for the AEC integration

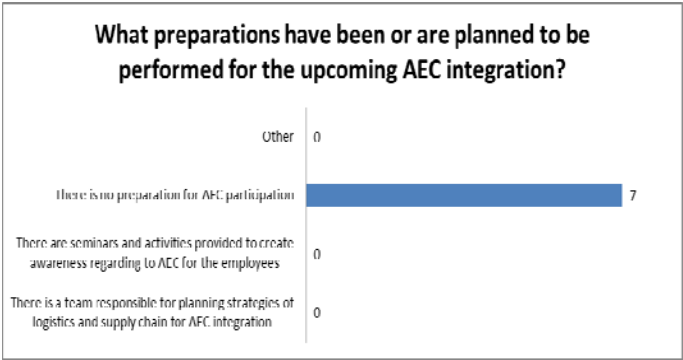


Figure 11 The automotive companies mainly non-authorized manufacturers are not yet prepared for the AEC integration

4.2 Potential Supply Chain Re-design

According to Figure 13, all of the respondents (7 respondents) from the automotive companies expect that their company will remain to be a manufacturer after AEC implementation. The result might be predictable, yet surprising, that the local players in Indonesia still have not seen both opportunities and challenges when markets open up and competition arises. If the local players, both Original Equipment Manufacturers (OEMs) and suppliers, are unable to improve their competitive positions and remain to be manufacturer company as they currently are, then they will find it difficult to survive since new players will enter the market and challenge the dominance of local players. Meanwhile, garment manufacturers appear to be more open to the idea of supply chain redesign. Although, most of the companies (72%) stated that they will remain to be a manufacturing company, there is 22% of the total companies who have consider diverting some portion of production capacity to lower cost countries as depicted in Figure 12.

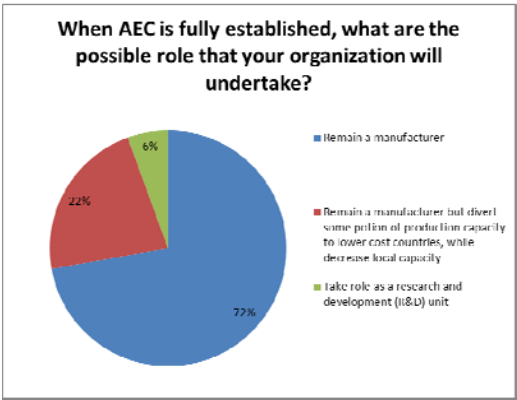


Figure 12 Possible roles after AEC implementation in the garment industry

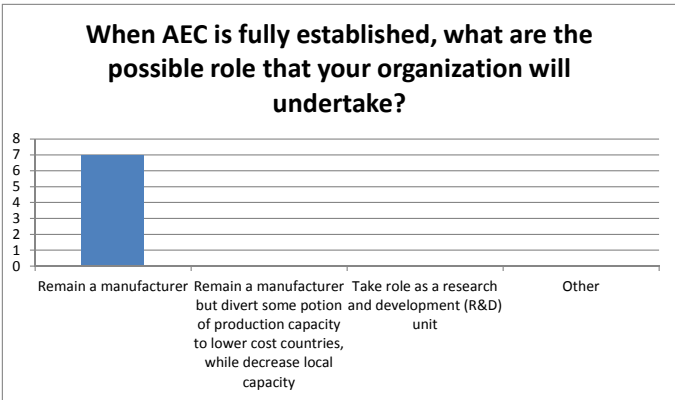


Figure 13 Possible role after AEC implementation for the automotive industry

As discussed before, the implementation of a single market leads to a redesign of supply chain, which mainly relates to relocation of manufacturers. According to Figure 14, most of the respondents in the garment industry (14 out of 18 companies) did not see any possibility to relocate their company to AEC member countries while others (2 out of 18 companies) might want to relocate some portion of their production facility to lower cost country instead of the whole organization. Only one company sees the possibility of moving both the company and factory to another country. However, from past histories, there are 89% of the total respondents that have never been relocated before. A different view is derived from automotive industry since they have not considered the option for relocation. This can be seen in

Figure 15 where all respondents consider relocation as unrealistic option.

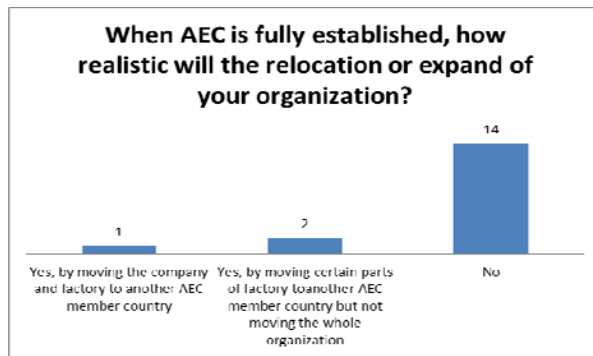


Figure 14 The view on relocation by the garment industry

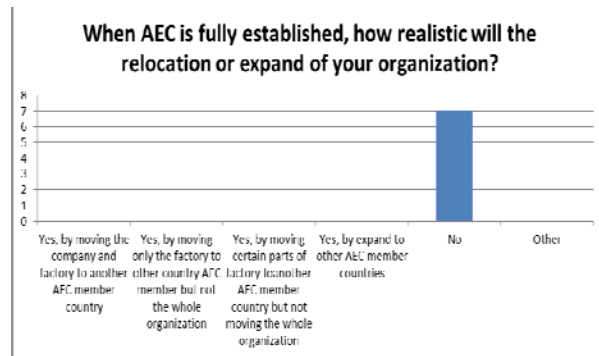


Figure 15 The view on relocation by the automotive industry

5. Discussions

Summary of findings from the automotive and garment sectors are provided in Table 1.

Table 1: Comparison of Automotive and Garment Sectors Preparation for AEC

	Automotive	Garment
Expected role of company following AEC implementation	Remain a manufacturer	Remain a manufacturer and some tendency to move some portion of production to lower cost countries
Possibility for relocation following AEC implementation	Unrealistic	Possible to relocate some or all factory to other member countries
Expected benefit from AEC	Highly unlikely to bring any benefit	Benefit from free flow of goods
Expected loss due to AEC	Increase competition, decreasing market share	Reduction of market share, loss due to currency exchange
Company's preparation	No preparation has been done	Participating in seminars, creating a team responsible for planning strategies, some have not done any preparation
Government Role	All possible efforts for AEC integration, including by promoting low interest loan	Evaluate possible scenarios following AEC implementation and establish a research team to provide information and prepare workers for the change

The results regarding AEC awareness in automotive sectors are quite surprising. However, further examination of the background of the companies reveals that this result is valid. The companies that are involved in the survey are mostly small companies producing component and automotive parts located in East Java, Indonesia. They are what Frost and Sullivan (2011) identified as non-authorized workshops. They usually sell their products to domestic authorized workshops or component industry. Their workshop is generally quite traditional and thus it is hardly surprising that they have not fully understood about AEC. This fact needs further attention from the local and the Indonesia Government since these companies have very little knowledge about the AEC and therefore may be vulnerable to the changes that AEC will bring.

All of our automotive respondents agreed that relocation or expansion of their organization to other ASEAN countries are not realistic considering proximity factors from plants to the firms (Bilbao-Ubilos, and Camino-Beldarrain, 2008). One of the reasons might be that the automotive industry in Indonesia serves domestic markets at most, and thus suppliers and vendors are located within the regional area. From the response we obtained during data gathering process, we found that their present supply chain structure in terms of suppliers and vendors, and customers is located in Indonesia, and they expect the same structure after AEC implementation. These companies also never relocate before in their past histories.

For automotive sector, it is evident that the further away the plants from the firms, the more they become vulnerable in terms of productivity and quality of the vehicle product. This is more of organizational and cultural matters rather

than technical issues. They have not seen relocation strategy as a promising option for example by implementing sourcing strategy as suggested by Schmitt and Biesebroeck (2013). This might also indicate that there is still lack of awareness on the current location tendencies in a global automotive industry as suggested by Ludger and Dehnen (2009).

In order to obtain a more balanced insight regarding the automotive sectors' readiness toward the AEC, an interview with a top manager of a leading automotive assembler in Indonesia is conducted. The manager stated that "Our company has a good coordination with around 200 of our suppliers. Together, we already have a strategy to compete and take advantage of the AEC era. However, we need support from the government Indonesia and also a better infrastructure to compete in the AEC". This seemingly contradictory finding from the automotive industry, render us to conclude that there is a big gap between big players and their network of suppliers with smaller companies in the Indonesia automotive supply chain. A lot need to be done by the government to close this gap and get every aspect of the industry ready for AEC.

With a lot more respondents, better insights are obtained from the garment industry. Compared to the automotive companies, garment companies surveyed in this research appear to be more open about the idea of supply chain redesign following AEC. A few companies have considered the option of relocating some parts of their operation to lower cost countries in AEC and some even consider taking role as research development unit. However, most of the garment companies are also aware of that the potential of increasing demand that comes with the implementation of a single market also pose as a threat as competitor can also freely enter their current domestic market. Therefore, these companies highlighted their hope to the government to consider the possible situations and scenarios as well as creating a team that can give more information and help them prepare for the AEC era.

6. Concluding Remarks

Preliminary findings reported in this research suggested that there is still lack of awareness related to AEC in many small companies in Indonesia. This requires great attention from the government to expedite the implementation of AEC blueprint in Indonesia. In particular, most companies surveyed here noted the need for the government to evaluate possible situations and scenarios following the AEC implementation and disseminate these to the companies to help them prepare for the coming era. In terms of our research, there are a lot of things that needs to be investigated further. First, more companies need to be surveyed both in garment and automotive sectors to get a better insight on the current state of readiness for both sectors. We also need to consults more literatures and gain experts opinion on the possible scenarios following the implementation of AEC. Finally, a comparison with other ASEAN countries would be beneficial to map the role that the industry in each country will play in the AEC era.

Acknowledgements

This paper is a part of an International Collaborative Research Grant funded by Institute of Research and Public Services, Institut Teknologi Sepuluh Nopember.

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