

CHAPTER 8

CONCLUDING REMARKS, SIGNIFICANCE OF THE STUDY, SUGGESTION FOR FUTURE Studies, AND IMPLICATIONS

8.1 Concluding Remark

Empirical studies have found effective and efficient distribution channels were essential to determine export improvement. While comprehending that the characteristic of distribution channels is that when once they are established, they are generally difficult to change, previous findings indicated that firm performance were also governed by how channel members managed coordination, avoided misunderstanding, fulfilled sale volumes and generated significant profitability, shared information, held commitment, and counted on one another. Furthermore, previous findings also strengthened the indications that the arrangements of channel members also were indicated to have impact on channel members' performance.

Since the roles of innovations include innovation in distribution channels on performance were inconclusive, extremely limited empirical studies have been found on how innovation in distribution channel leads to the performance of SMEs. Hence, for the 120 respondents of export oriented SMEs of agriculture based industries in DIY province and the surrounding areas and Java-Indonesia, the findings addressed the relationship.

The quantitative findings provided further evidence on the subject of the effect of distribution channel innovation on distribution effectiveness, which, in turn, would improve firm performance, as addressed in the first objective of the study. As the innovations were applied on a case by case basis by correlation and were asserted by simple regression on

export oriented SMEs for the agriculture based industries, for innovation in information sharing or otherwise, the findings verified that in general, each of the innovations affected significantly the performance with the exception of production and distribution scheduling. On the other hand, when all the innovations were generated on the same population of SMEs by multiple regressions, distribution effectiveness was improved to a point and even this was able to enhance performance.

The research further showed that in terms of efficiency, similar conclusion was derived at as it occurred to effectiveness. When the innovations were examined by correlation analysis , it was found that there was an increase in distribution efficiency with the exception of order handling innovation. Simultaneously, when the innovations were conducted in a group on the SMEs and analysed by multiple regressions, it was shown that certain innovations; innovation in assortment, information sharing and coordination, transportation coordination , and warehousing, and finished good handling, positively contributed towards distribution performance in terms of efficiency.

Aggravated by the miscellaneous results of the past findings of innovation, which was likely to exclude the mediating effect of distribution channel performance between the innovations, including in distribution and firm performance, other objectives of the study were to examine the impacts of the distribution performances on the firm performance and the mediating roles of distribution performances between the relationship of distribution channel innovations and firm performance. This study confirmed the notion that distribution channel effectiveness and efficiency mediated the association between

distribution channel innovation and the SMEs performance. Furthermore, from the theoretical perspective, distribution channel effectiveness and efficiency could be improved extensively by executing innovation in distribution channel activities, particularly in assortment, information sharing, and transportation coordination, in which, would in turn, enhance SME's performance. More importantly, as far as the Indonesian SMEs are concerned, since the government assistance had inadequately facilitated the sector to improve their distribution channel (goods flows from the SMEs to end consumers), they themselves had been obliged to find ways to innovate their own distribution channel, so that the channel would be more effective and efficient at length, as much as the economic firm performance could be enhanced.

8.2 Significances of the studies

It has been acknowledged for years the existence of SMEs in the global economy that is considered essential for economic growth. Since many SMEs have engaged in exports to seek natural growth and sustainable development, the world GDP is significantly contributed to about a quarter by the SMEs (World Bank, 2003). Previous studies had found that distribution channels played positive significances to enhance firm performance of export-oriented SMEs. Moreover, studies on governance and relationship behaviour of distribution channels (suppliers, producers, distributors, agents, and consumers) showed improvement in channel performance.

The impact of innovation on firm performance was positively obvious even though some empirical studies had shown differing results. In general, product and production process

innovations, including innovation in distribution channel, had different effects on firm performance and these also happened in SMEs.

Therefore, it could be referred from the findings of the study that entrepreneurs or stake holders should provide support in understanding how innovation in the distribution channel of export oriented SMEs can lead to firm performance and how the innovation could strengthen their channel members' performance. This, in turn, may become one of the crucial factors in accessing emerging markets.

As practiced in other countries, the roles of SMEs in Indonesia have become important and should be given more consideration. As their numbers are in the highest proportion, their abilities to contribute to employment absorbance are the highest. They also have a deep impact in adding value to goods and services in almost all sectors.

The innovation effect on firm performance has been a subject of significant interest to economists for so long. Even though innovation is normally regarded as a means of competitiveness enhancement of either domestic or international firms, this relationship had been demonstrated diverse by empirical works, including on SMEs. Several studies showed that innovative activities of firms influence directly on their performance, while some indicate that innovation has not necessarily directly influenced firm performance but rather indirectly through the production of useful innovations after increasing productivity. Therefore, the findings show some directions to the government and/or other related institutions in identifying how innovation in distribution channels of the export-oriented agriculture based SMEs in the industrial and manufacturing sectors can enhance firm

performance. Besides, as innovation has become one of the main factors in improving the performance of SMEs, they are, therefore, expected to take part in this responsibility as lack of technology and innovation is still becoming one of the weaknesses that have been holding SMEs back from achieving their competitiveness.

Furthermore, theories explain how competitiveness drives firm performance. Transaction cost emphasized on efficiency that is oriented by most of the firms to improve competitiveness, particularly in distribution channels. Here, every transaction produces cost that is the case of export oriented firms, particularly SMEs, innovation in distribution channels will significantly improve efficiency, which, in turn, enhances firm performance. As the depot theory explains goods will tend to flow to the end consumers/users, the result of the study showed that innovation in distribution channel leads to distribution performance, then improves firm performance due to the effectiveness and efficiency during the process of goods' flow towards end consumers. Individual perspectives, diffusion theory, and cultural perspectives are supported by how innovation in distribution channels is conducted by the SMEs in this study.

It has been acknowledged that the major capabilities of SMEs is to attract massive employment that brings positive impacts for alleviating poverty, value added contributions, GDP contributions, and so forth. The results of this study on a sample of 120 export oriented agriculture based SMEs in DIY Java-Indonesia, is more applicable to the more populated countries. On the other hand, the collective distribution channel innovations would be likely to be more appropriate for less populated countries rather than the more populated ones.

8.3 Suggestions for future studies

In order to extend the understanding of the study, based on the current findings, these are several suggestions for further research on the same population categories, suggested as in the following:

8.3.1 Firm characteristics and distribution channel performance

In this current study, the firm characteristics involved were firm size, net asset excluding land and building, industry sector, and the age of the company. Other firm characteristics, such as the number of employees, export experience, and education level of top manager or owner would be interesting to be examined further in order to understand how their impact is on the distribution channel performance on SMEs.

8.3.2 Firm characteristics and distribution channel innovativeness

It would be interesting to see how firm characteristics would explain distribution innovativeness on SMEs, which are export oriented.

8.3.3 Competitive environment and distribution channel performance

The competitive environment is extensive. It is interesting to view other external competitive environments and government regulations and so forth, and understand how they affect distribution and firm performance on SMEs export activities.

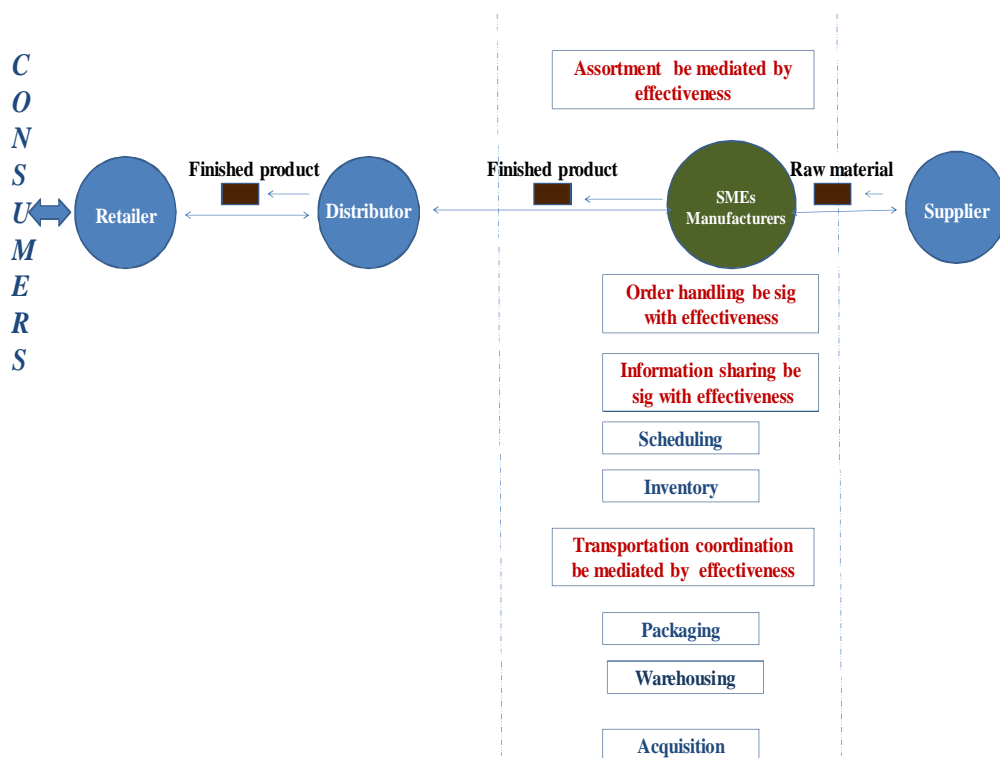
8.3.4 Other control variables

Based on the findings in this study, other control variables, such as entrepreneurial and organizational factors can be included in the model so that the theoretical perspective of SMEs' performance could be understood better.

8.4 Managerial implications

8.4.1 Managerial implications for SMEs: Innovation in distribution channels, effectiveness and firm performance

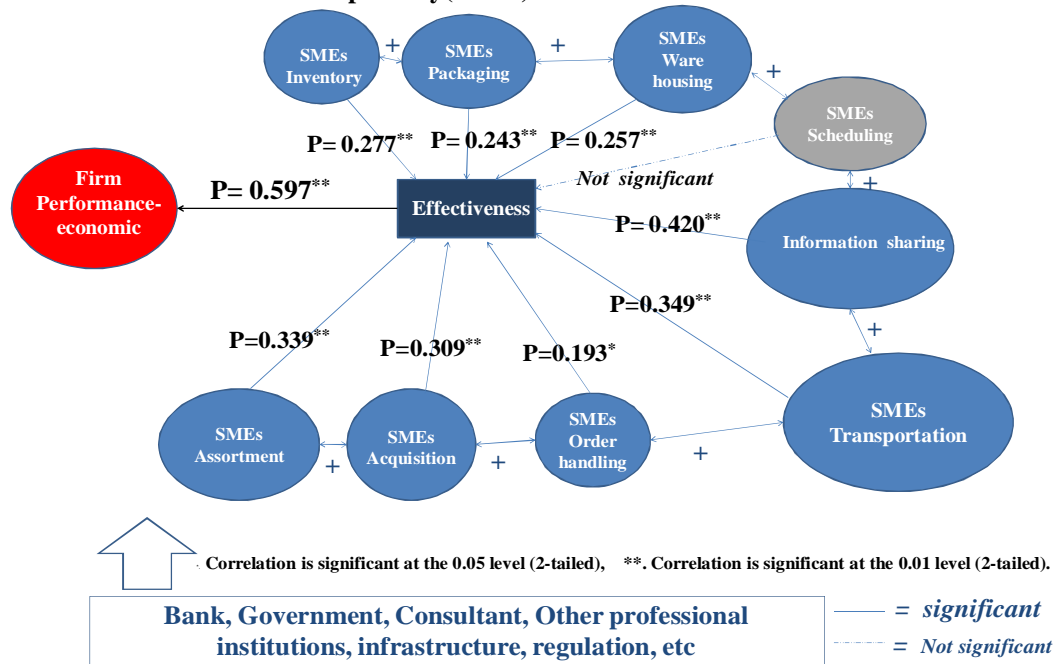
Illustration 8.1 Effectiveness



The case of export oriented SMEs in the agriculture based industry category, focusing on a sample of 120 export oriented SMEs in DIY surroundings-Java-Indonesia, the empirical findings demonstrated that if the innovations were executed simultaneously; as seen in illustration 8.1 above, the innovations implied were not supposed to be implemented fully

integrated. Besides, among the four innovations (As seen at illustration 8.1), it was found that assortment innovation was mediated by effectiveness and order handling innovation was positively significant with effectiveness, and transportation innovation was mediated by effectiveness.

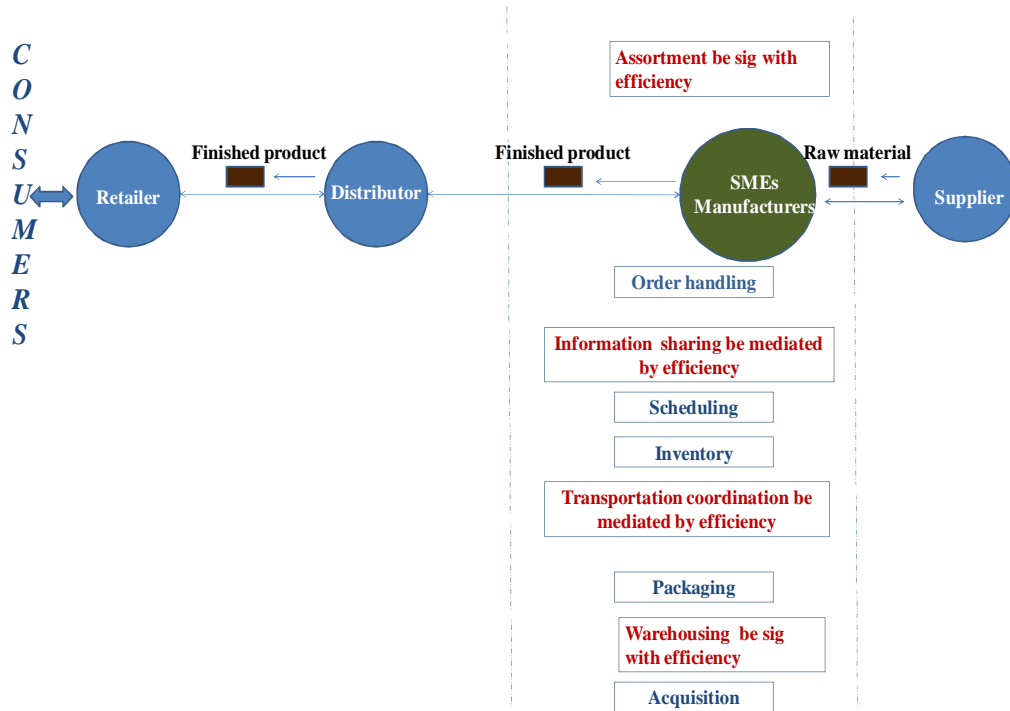
Illustration 8.2.
innovation in DC conducted separately(SMEs)-Effectiveness



Another point of view as the innovations were conducted partially or one by one, as seen in illustration 8.2 above, each of them was on the whole; positively significant with effectiveness performance, excluding innovation in product and distribution scheduling. Further findings also showed that the interaction among them was positive. With export oriented SMEs focused on inventory innovation industry only, packaging innovation industry only and so forth, the implication that could be derived was that the innovations would bring them to high positive significant impact upon firm performance. Nonetheless, the cooperation among them also revealed the advantage positively.

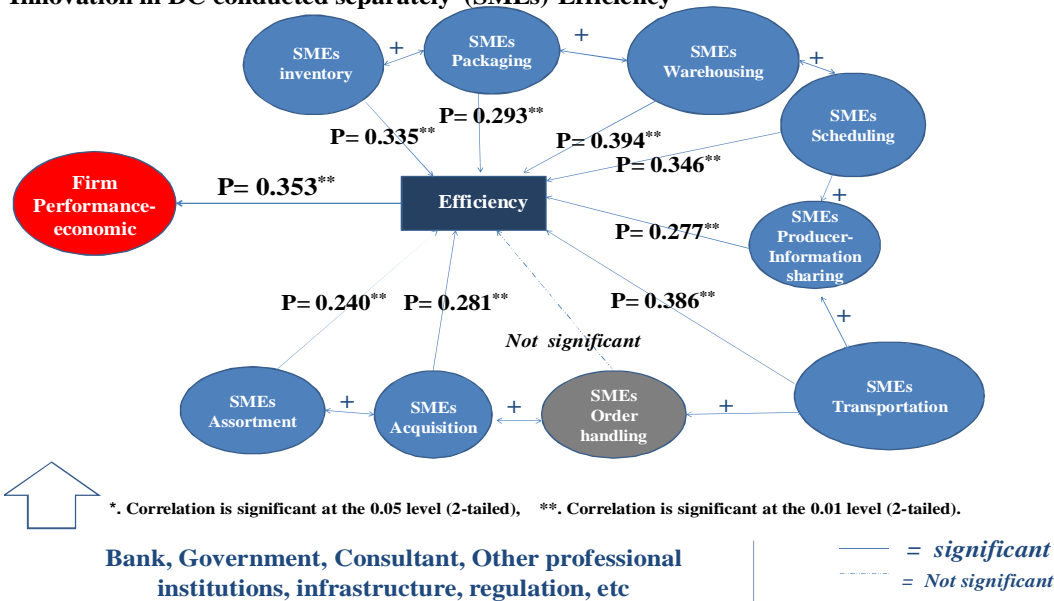
8.4.2 Managerial implications for SMEs: Innovation in distribution channels, efficiency, and firm performance

Illustration 8.3 -Efficiency



In terms of efficiency, in the context of export oriented SMEs in the agriculture based industry category, once the innovations were conducted, as shown in illustration 8.3 above, the innovations were implicitly not supposed to be implemented fully integrated either as only some of them could attain efficiency performance. The four innovations (as seen in illustration 8.3) showed that innovation in assortment and warehousing & material handling were significantly positive with efficiency, whilst information sharing and transportation coordination innovation were mediated positively by efficiency.

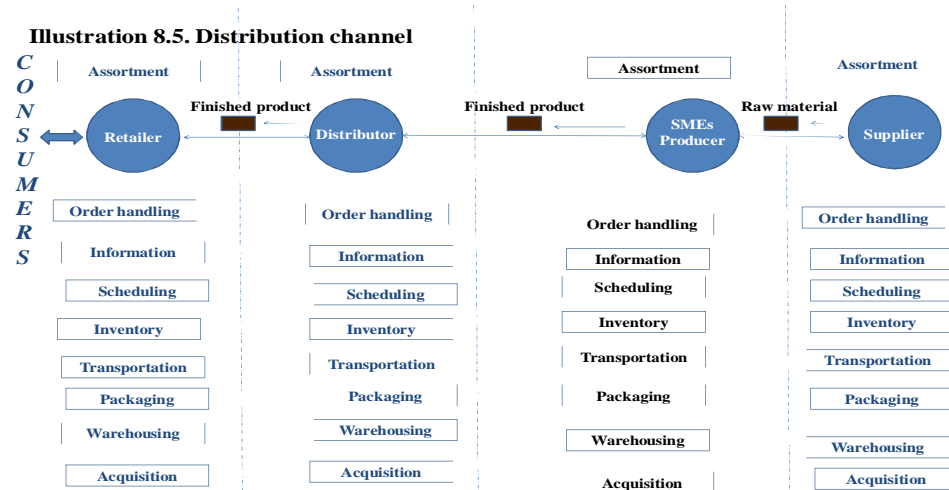
Illustration 8.4.
Innovation in DC conducted separately (SMEs)-Efficiency



However, if the innovation was conducted partially, as in illustration 8.4 above, most of them contributed highly and significantly to the efficiency performance (only order handling innovation was insignificant). Furthermore, interaction among them appeared mutually beneficial as well. The implication of these findings is similar to the case of distribution effectiveness.

8.4.3 Managerial implications for manufacturers, distributors, agents and retailers- How do innovation in distribution channels enhance channel members' performance?

It has been noticed that each of the channel members shared the same activities with each other, as seen in illustration 8.5.



Hence, from illustration 8.5 above, it could be concluded how the innovations could assist channel members' performance (Export oriented SMEs), as follows:

- a. The case of export oriented SMEs manufacturing, as seen in illustrations 8.1 and 8.3, indicate that five innovations can be adopted for them to enhance performance; innovation in assortment which was mediated by effectiveness, innovation in order handling which results in effectiveness, innovation in information sharing which was mediated by efficiency, innovation in transportation coordination which was mediated by both effectiveness and efficiency, and innovation in warehousing and material handling which promotes efficiency.

- b. On the other hand, in the case of distributors, agents, or retailers, the result indicated at least one innovation in the distribution channels that can enhance their performance in combination of the following: assortment, order handling, information sharing, product and distribution scheduling, inventory, transportation, packaging, warehousing and material handling or acquisitions.

8.5 External factor implications: The role of external distribution channels' innovations in enhancing product distribution performance of SMEs export oriented

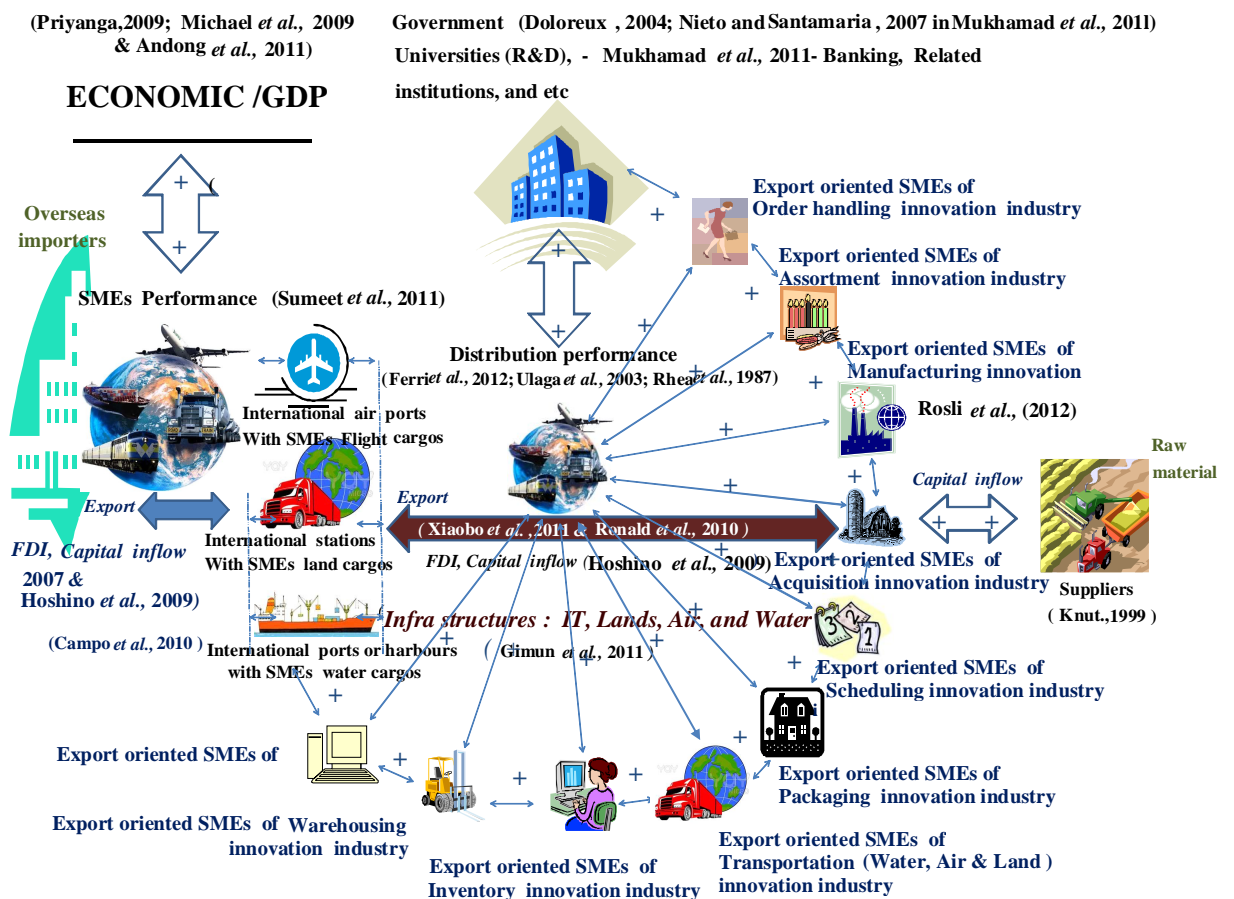


Figure 8.1 The relationship of innovation in distribution channel- internal and external factors of SMEs export oriented agriculture based industries in global economy.

Figure 8.1 indicates the importance of external and internal factors that lead to the performance improvement. Doloreux (2004), Nieto, and Santamaria (2007) in Mukhamad *et al.*, (2011) found the important role of external institutions' assistance to support SMEs' innovation. Besides, Mukhamad *et al.*, (2011) emphasized that universities could make available sufficient information by means of training, information sharing, and coordination with reference to innovation implementation. Another aspect further asserted by Rosli *et al.*, (2012) was that innovation and global orientation were presented positively to improve performance. In such cases, global market allowed the SMEs to face new opportunities and in new environment that supported them to expand production capacity due to the new market demand. In respect of the suppliers, Knut Koschatzky (1999) interestingly pointed out that distance apparently did not play a major role with regards to the cooperation between supplier and customers (buyers) in Germany. Knut Koschatzky (1999) assured further that the relations with business partners were major knowledge resource of innovation; hence, innovations would intensify firms to do more in interregional networking to enhance their performance. The interaction also enabled firms to provide the coordination capability for them with reference to competitiveness and economic performance improvement.

However, a proper available infrastructure is essential to improve SMEs productivity. As many of them are established in remote areas, Xiaobo *et al.*, (2011) pointed out that advanced infrastructure can further heighten workforce efficiency. The establishment of SMEs with electricity would let them work longer hours, and in turn, improve their efficiency. In another aspect, Ronald *et al.*, (2010) assured that IT infrastructure would lead to performance improvement as well. He suggested that by redesigning in an update IT

hardware and software, particularly on supporting the speed flow of information sharing, would boost competitiveness and performance.

Recent findings by Kim Gimun *et al.*, (2011) indicated that by enhancing the flexibility of IT infrastructure, a firm's IT management capabilities indirectly contributed to the competence in managing business processes. As IT management capabilities have become the counterpart of business function (McKeen, & Smith, 2008; Peppard, 2007, in Kim Gimun *et al.*, 2011), IT personnel expertise and IT infrastructure flexibility are able to assist better information sharing/communication to render operational processes more effectively to improve business intelligence and analytical strength in order to face bigger challenges and improve efficiency.

However, as seen in illustrations 8.1 and 8.3, when the innovations were executed simultaneously by multiple regression on the export oriented SMEs manufacturing processes, only a certain extent of innovations lead to SMEs improved performance, whilst illustrations 8.2, 8.4, and 8.6 found that as they were conducted one by one or separately, all the nine innovations significantly led to SMEs performance. The illustrations indicate that the interaction among them was found to be significantly positive. Nonetheless, the outcome of this study also indicated the firm size, age, industry sector, and hostile environment, which did not explain the SMEs performance (as seen in Tables 7.4 and 7.5). Furthermore, illustrations 8.2, 8.4, and 8.6 were also relevant with the transaction cost theory, depot theory, individual perspectives, and cultural perspectives of innovation, as well as resource based view, as addressed in Chapter 4.

In terms of macroeconomics' perspectives, exports have been a major source of economic growth for they are considered part of production and imports of goods. It is also part of capital and services, as well as a source of new ideas, knowledge, and technology. By supporting the comparative advantage, exports can enhance active efficiency and effectiveness leading to competitiveness and improving economic growth (Gylfason, 1999). Many empirical studies confirmed the existence of export activities to encourage economic growth in many countries. Andong Zhu, and Kotz (2011) showed that the rapid economic growth in China had been supported by exports since 1978. Further evidence can also be found in Sri Lanka. Dunisinghe (2010), in his regression analyses, demonstrated that the exporting sector extension had positively and significantly influenced GDP development for the higher productivity levels in Sri Lanka. The study also showed that export classification had played an important part in enhancing the growth. Furthermore, Michael *et al.*, (2009) confirmed that the international trade is associated with economic growth, while past studies by Gylfason (1999) again confirmed that export enhanced competitive inflation rates in the countries.

Furthermore, according to Sumeet *et al.*, (2011), the North American Free Trade Area is an evidence of generating a free flow of goods, services, investment, and capital, equality economic growth, and poverty reduction. Lloyd *et al.*, (2004), in Suumet *et al.*, (2011) identified several critical barriers among ASEAN borders that hindered the trade friendliness in logistic services. In respect to custom, for instance, in general, he found that there were too many document requirements with unclear information and coordination and these consumed a lot of time (Suumet *et al.*, 2011).

According to his study, even though WTO standards only required that around 1% of the goods need to be inspected throughout their distribution, the complex inspection itself frequently caused bottlenecks and was time consuming. Though the coordinated system code in ASEAN has already been set up, misclassification in coding goods in some countries still occurred. This further delayed the process. Furthermore, the existence of duplication of documents often occurred due to the lack of coordination between one another and these increased the length of time and generating physical bottlenecks with high trade volumes. In ASEAN, inefficiency of inbound clearance process (except for Singapore and Brunei) was still prevalent. Transparent regulation becomes crucial for some countries. An objective transparent regulation could improve coordination among the parties for goods flow (Suumet *et al.*, 2011).

Other obstacles were the traffic jam in the check point that still existed in some countries. There was even a large number of trucks queuing all night long at the border that wastes too much time. An application of different regulations also existed for some countries, especially those who had many ports. This was due to the lack of coordination in terms of customs rules. The unclear regulation from one port to another causes confusion that wasted time. There were also cases where some improper penalties were imposed by the customs officials without good reasons. Those improper penalties hinder free trade by increasing additional burdens in terms of cost and time (Suumet *et al.*, 2011).

Furthermore, discriminatory licensing requirements from one country to another have become ineffective. Examples of these licenses are office license, brand license, export-import license, and so on. Limitations of fleet size, equipment usage, hours of operation,

and aviation sabotage regulation have also become factors in improving the flow of goods effectively and efficiently (Sumeet *et al.*, 2011). The following lists the significances of the factors that affect the trade friendliness of logistic services in ASEAN:

Table 8.1 The factors that affect the trade friendliness of logistic services in ASEAN

Barriers	Significance
Time consuming documentation requirements	<i>Critically significant</i>
Burdensome inspection requirements	<i>Critically significant</i>
Different classification of goods in different countries	<i>Critically significant</i>
Lack of border crossing coordination	<i>Very significant</i>
Inefficient inbound clearance process	<i>Very significant</i>
Arbitrary independent rulings	<i>Moderately significant</i>
Volatility in border traffic	<i>Moderately significant</i>
Multiple uncoordinated office	<i>Moderately significant</i>
Improper penalties	<i>Moderately significant</i>
Discriminatory licensing	<i>Moderately significant</i>
Limitation on fleet size, equipment usage and hours of operation	<i>Very significant</i>
Sabotage regulations (Aviation specific)	<i>Moderately significant</i>

Source : Sumeet *et al.*, (2011)

Hence, Sumeet *et al.*, (2011) suggested that to overcome such obstacles, a regular Electronic Data Interchange (EDI) for all ASEAN members would improve the productivity of trade as for the time being. However, EDI is unavailable for all gateways, especially involving payments which causes delays, lack of efficiency, and unfriendly practices. The use of EDI would increase the efficiency of the documentation process. In terms of inspection, Sumeet *et al.*, (2011) mentioned that the tribulations in inspection practices were mostly because of inhospitable and ceremonial practices in trade. They state that ASEAN should take advantage of using a uniform inspection procedure between its borders so that the time consumed for inspection can be reduced. In terms of different category of goods exercised by the ASEAN members, they could use uniform regulations. These regulations also must be transparent and understood by all channels engaged in logistics.

In addition, Summet *et al.*, (2011) suggested that the officers were supposed to be educated on the categories of procedures. This would also make the inbound clearance procedure more productive. In respect to the land transportation, ASEAN could take advantage of a regular ASEAN rule, which allows trucks to cross borders. This would assist in reducing unnecessary bottlenecks and alleviated waiting time at the checkpoints. Concerning the foreign direct investment (FDI), Summet *et al.*, (2011) suggested that what happened in Singapore was a lesson for letting a greater part overseas ownership not only for the sake of infrastructure development, but also requiring all firms both domestic and foreign to be treated wisely and without prejudice. Too many inspections could lead to more barriers and increase obstacles to logistics services in ASEAN due to lack of automation, unnecessary procedures, and unnecessary documentations.

In respect to trade friendliness in logistic services, as recommended above, motivated by sharing experiences and knowledge, the following treatise would endow the implications of the study.

It has been acknowledged that lack of coordination and information sharing system would cause bottleneck that will affect trade friendliness and performance. The malfunction logistic case, such as EDI error, double documents' requirements, uncoordinated inter port (domestic or international), in particular among customs official, and other disorderly consequences are likely due to the non integrated information sharing system applied among relevant parties. As diverse languages among ASEAN members may exist, adopting the use of English or "Nusantara" could become one of the solutions. Such a system is then

expected to support the users to comprehend the available information easier and quicker. The adoption of EDI may be observed in Brunei Darussalam. There, establishing an integrated website data based dynamic website enables the members to have an effective synchronised coordination (Campo *et al.*, 2010).

In spite of the available computerized programming or relevant software, IT infrastructure is also considered an important tool in order to speed up the information process. The quality of hardware itself would affect the information sharing performance, effectiveness, and efficiency. Establishing standardization of the quality on IT infrastructure for ASEAN members need to be confirmed further in order to improve the flow of the information process (Ronald *et al.*, 2010).

Besides, even though the world trade organization (WTO) requires just 1% of product that need to be inspected all through the shipment process from one country to another, apparently, dissimilar policies regarding the inspection among ASEAN members exist. For this reason, to improve the distribution performance, more recruiting and training of the customs' officials are essential (existing or new employment recruitment). This is to be accepted by both parties (government and customers) (Brahma, 2011).

As far as ASEAN is concerned, the synchronized system goods' coding has already been in use effectively, thus, the classification of goods should be in one agreement by ASEAN members. For instance, wooden and plastic goods are considered to be different. Wooden goods can be classified from wooden raw materials and on the other hand, plastic goods are to be made from plastics. When the goods' classification is under a single agreement by

ASEAN members, the coding classifications can be supported by using “Barcode” technology. In such case, the first inspection is then likely to be crucial as the officials would surely verify or attach the correct barcode before letting the goods flow towards further inspections (if necessary). Once the correct barcode is attached upon the goods, the rest of the flow would become much easier.

To add on, congestion in border check point happens in many countries and thus, applying certain certificates for the customs could be effective (Sumeet, *et al.*, 2011). However, border congestion can be reduced, firstly, by reconstructing infrastructures around border check points, including the surrounding highway. Moreover, establishing several gateways has become an effective choice as well.

In terms of investment, the policy of FDI from one country to another is dissimilar. Myanmar and Cambodia allow foreign companies to own up to 100% equity and it depends on the company size, though. Vietnam allows them less than 50% of equity, Malaysia allows more than 50% of equity. Surprisingly, in the case of larger firms in Malaysia, foreigners can have possession of 100% equity (Sumeet *et al.*, 2011). However, despite the various ownership policies in ASEAN, separating into several investments instead of merely putting in one company only (100%) happens to be effective. By having such policy, the risk is likely to be reduced. There are many kinds of choices in existence to put into practice, for example, the FDI in ASEAN member states.

In terms of aviation sabotage regulations, Sumeet *et al.*, (2011) define them as regulations in air transport that arranges the domestic cargo traffic by foreign flight from one airport to

another within the country. In most cases, cargo air plane by and large is huge in size. Hence, it would take a lot more international airports to accommodate such giant cargo planes as the traffic itself is presently heavily populated. However, as illustration 8.5 has addressed earlier, a medium sized SMEs' cargo transportation might grow to be an alternative choice in terms of land, water-river and lake, as well as air. There are many other safer air traffics that can be used as resource based view among ASEAN.

Then, regarding distribution cost, all daily activities involve cost, and innovation in distribution channel, in this study, had been significant in improving efficiency and firm performance. Hence, examining the real cost that occurs for the period of the flow is essential. Subsequently, there is a need to examine further the proper budget which arises from the flow. It is much easier if the activities are routine for the estimation. Once all the activities can be measured in terms of cost, the next estimation gets even easier. Nonetheless, there are two principle types of cost; variable and fixed costs. Thus, in order to identify the activity, cost can be easily estimated by "Cash flow method", based on daily, weekly, or monthly. The principle activity based on costing in this calculation is better if it becomes measurable. In terms of time, it is measured in seconds, minutes, hours, days, weeks, months, and so forth.

Further details related to the friendliness of logistic services, for instance in ASEAN, can be found in Sumeet *et al.*, (2011).