

An Integrated Structural Equation Model Approach to Assess Export Performance in Thai Rubber Export Industry

Punninon Sirisuwat

Doctoral Student of Doctor of Philosophy Program in Management
Prince of Songkla University
Thailand

Teerasak Jindabot

Director of Master of Business Administration Program
Prince of Songkla University
Thailand

Abstract

Export performance in the industry is the top goal of business operation which concern about export advantage, international experience, readiness of resource, global competitive force, export marketing strategies, and the relationship between buyers and sellers. This study collected data from 218 entrepreneurs who have involved in Thai rubber export industry. The results will benefit entrepreneurs to determine the ability to compete in the future and to realize causal factors that affect export performance in order to develop its ability to compete in the global market and also to assist other industries that share similar features to adapt to become the potential global firms in the industry. However, the study found significant results that export advantage, international experience, readiness of resource, global competitive force, export marketing strategies, and the relationship between buyers and sellers are cause-related with export performance.

Keywords: Export Performance, Export Marketing Strategy, Rubber Export Industry

1. Introduction

The success is something that challenges the ability of managers due to intense competition with the changes in globalization. As world markets globalize, the effect of export performance on a firm's performance has been frequently discussed in the literature. Potential in the international market to become global is determined by the efficiency of export. In particular, the rubber products industry deals with a major export product. It is a source of income at the most competitive level that can bring prosperity to the country. The export of rubber as seen from the situation of the past shows that Thailand has become the world's largest natural rubber producer and exporter to the world. The value of total exports of rubber and rubber products in 2009 was 43,855,998,034 million baht; in 2010 the export value increased respectively to 65,840,571,901 million baht which is up 50.13 percent from the year 2009. In 2011 the export value increased respectively to 82,493,085,912 million baht which is up 25.29 percent from the year 2010 (Department of International Trade Promotion, 2012). Although the rubber industry will generate large revenue for the country, the growth rate of exports is significantly lower than the aim in the last 2-3 years. That might be due to external factors and internal factors. Therefore, it is interesting that the rubber processing industry adapts to survive amidst the need to develop marketing strategies against foreign competition, so it is very important to know which factors that also have cause-related with export performance.

2. Literature Reviews

Several studies address the importance of exports performance. The findings of these studies indicate that significant positive impact on export performance. We can summarize some of these studies that have addressed the issue about causality of export performance as follows:

Export Performance

Exporting is one of the significant preliminary steps of an enterprising organization towards expanding its international business activities. A comprehensive survey of the literature by Katsikeas, et al (2000) revealed that export intensity, export sales, export growth, and export profitability are the four most used measures of economic export performance. Export intensity is the ratio of export sales to a company's total sales and it is the most widely used economic measure of export performance in the literature (Baldauf et al, 2000).

An alternative to an objective measure of export performance would be to measure managers' subjective assessment of satisfaction with export success (Evangelista, 1994). The use of a composite measure of export performance that incorporates financial performance, and managers' subjective assessment of performance of the export market venture has also gained support in recent years (Cavusgil & Zou, 1994; Zou, et al, 1998).

Export Advantage

Organization will have an advantage in a competition when they have resource that is unique and difficult to imitate as well as able to present a more worthwhile offer than the competitor to customers (Barney, 1991). The ability to compete plays a major role in an increasing of the export performance of the organization (Ling-ye & Ogunmokun, 2001). Aulakh, et al. (2000) indicated that the ability to compete of the organization depends on the value of the product and service that offered to customers in the target export market as well as cost to perceive this value. Zou, et al. (2003) stated that competition advantage happened first and then affected the export because it determines the perceived value and purchasing behavior of target customers (Piercy, et al, 1998). The result of this behavior will affect the export as well as export performance of the organization (Albaum & Tse, 2001). Rose & Shoham (2002) stated that talent is necessary for the export of the organization that focus on the market achievement, which have to invest massively on resource especially on the export such as the size of the company, which may affect the receiving of information from overseas. This means that minor exporters cannot access the export information that might be useful. Likewise, human resources, finance and management that comes with the size of the company also influence the export (Armario, et al., 2008).

Hypothesis 1: Export advantage is cause-related with export performance.

International Experience

International experience is the experience of ability and knowledge of the organization which came from the operation in overseas market under various environments for a long time. The international experience is measured by the number of years that the organization has been exported. Nakos et al. (1998) stated that the number of years and international experience determines the success of exporting organizations with export business. The longer the international experience of organizations, the better the export performance than the shorter international experience organizations. White et al., (1998) stated that the manager with longer international experience will open the export opportunity of the organization. If international managers have high export experience, most of them are not reluctant to do international business to increase the export performance of the organization. Nakos (1998) has noted that organizations with high experience in international markets will have knowledge and familiarity with the export growth because knowledge is gained from experiences. Companies that do not have enough experiences, it is likely that employees in the organization will lack of sufficient knowledge of complicated detail related to export. If employees in the organization do not have sufficient knowledge of the detailed information of export, a disruption in communication for export will occur. Therefore, resources of experience and information are extremely important for export. Organizations should consider the increasing of export coordination efficiency to enhance the operation potential in international markets of the organization (Cadogan et al., 2009).

Hypothesis 2: International experience is cause-related with export performance.

Readiness of resources

Firms should optimally allocate their resources if they are to achieve superior export performance because the availability of favorable resources allows firms to exploit opportunities and neutralize threats in competitive environments (Leonidou et al., 2002). The influence of firm resources and export intermediary resources on export performance using the resource-based view (RBV) which is very important for firms in order to run business with foreign countries or export marketing (Theingi & Sharon, 2010). The RBV advantage is driven by intangible resources, such as knowledge and experience, the acquisition of market information, technological know-how and business relationships, as these resources are difficult to imitate (Michalisin et al., 1997)

Hypothesis 3: Readiness resource is cause-related with export performance.

Global Competitive Force

Global competitive force is the global competition for product and market in globalization. Most international organizations were developed from successful national organizations in those businesses or when the product was saturated and the market expansion is required for the growth of the organization (Porter, 1990; Bilkey & Tesar, 1977).

Many organizations want to expand their market to international market to increase the ability to compete with competitor in the country (Chailom & Kaiwinit, 2010). Because of the importance of the ability to compete can reflect the ability of the business in terms of achievement and various capabilities, someone has defined various characteristics of the ability to compete. The potential to compete of the business in terms of market must consider of how to achieve the objectives, survive and prosper in the future. The executive must dedicate intelligence, effort, patience and existing experience to fully manage every aspect, and prepare for events or problems so the business can run smoothly and securely as well as grow continuously by planning. Planning is the definition of objectives in the future and planning of activities in order to achieve the objectives. This planning will help to stimulate the operation to meet the future needs (Nilsson & Rapp, 2005). Since the working environment is changing all the time, businesses need to focus on the possibility and the change of the environment in order to be able to estimate the future and choose the most beneficial alternative to the business, which is to create a competitive advantageous in the operation (Porter, 1990).

Hypothesis 4: Global competitive force is cause-related with export performance.

The relationship between buyer and seller

Management of customer relationship marketing means acting on the customer. This may be the consumers, or intermediaries in the distribution of each continuous aims to provide customers with an understanding of perception and feeling good about the company, the company's products or services to increase the customers' credentials, or marketing to build customer loyalty (Ma, 2006). Relationships and cooperation is an important resource within emerging economies, and is particularly important in Thailand (Itthiopassagul & Blois, 2000; Theingi et al., 2008). Consequently, commitment of the export intermediary towards improving sales of the export manufacturer's products significantly improves export performance (Peng & Ilinitch, 1998; Peng and York, 2001; Wilkinson and Nguyen, 2003).

Hypothesis 5: Relationship between buyer and seller is cause-related with export performance.

Export Marketing Strategy

Export marketing strategy implies a dynamic system of decisions concerning product development, pricing, promotion, and distribution that are originated and implemented over time. As Katsikeas, et al (2000) claim that export marketing strategy variables refer essentially to the company export product, pricing, distribution and promotion strategy and are key to exporting success. In the international marketing context, a number of studies (Lee & Griffith, 2004) have suggested that export performance is influenced by export marketing strategy. However, there are effects of export marketing strategy that have led to significant results on performance of export businesses in Thailand (Lee & Griffith, 2004). For more instances, export marketing strategy has directly and indirectly significant positive influences on export performance via export advantage as the mediator.

Hypothesis 6: Export marketing strategy is cause-related with export performance.

However, there are many studies about export performance, but most of those studies are about commodity products. In addition, there are very few studies of export performance on agriculture products, so researcher has been studied on Thai rubber export industry to fulfill the gap on this field.

3. Conceptual Model

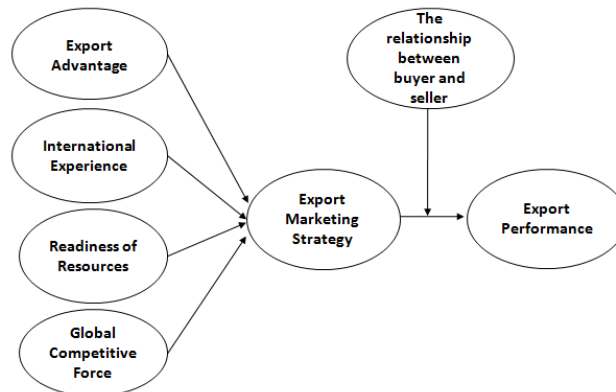


Figure (1): Conceptual Model

4. Research Methodology

4.1 Data Collection

The present study employed questionnaires as the instruments for collecting data about the business operations of rubber exporters to overseas markets. The main respondents were composed of business owners or high-ranking executives involved in the export side of the rubber industry. The sample group in this study comprised a total of 302 entrepreneurs in the rubber industry and data was collected from the 218 sets of questionnaires returned (72.19%) by analyzing structural equation model analysis (SEM) to analysis causal model of the relationship between buyers and sellers, the relationship between buyers and sellers, export advantage, international experience, readiness of resources, and global competitive force affecting export performance.

5. Results

The consideration of causal relationship model between buyers and sellers, marketing strategies for export, export advantages, international experience, readiness resource and global competitive force that affect the export performance in Thai rubber export industry in terms of causal by Structural Equation Model Analysis (SEM) is as follows:

Causal relationship showed that 1) Export advantage (EA), international experience (IE), readiness resource (RR), global competitive force (GCF) have indirect toward export performance (EP) by export marketing strategy (EMS) at the statistical significance of 0.05 ($P < 0.05$) that gave the path coefficient of 0.262, 0.282, 0.158 and 0.184, respectively. This means if the organization has higher export advantage, international experience, readiness resource or global competitive force, export performance of the rubber export organization is also higher. 2) Export marketing strategy (EMS) was directly related with export performance (EP) at the statistical significance of 0.05 ($P < 0.05$) that gave the path coefficient of 0.682; DE of 0.682. This means if the organization has higher export marketing strategy, export performance of the rubber export organization is also higher. 3) Relationship between buyer and seller was directly and indirectly related with export performance (EP) by export marketing strategy (EMS) at the statistical significance of 0.05 ($P < 0.05$) that gave the path coefficient of 0.623; DE of 0.212 + IE of 0.411. This means if the organization has higher relationship between buyer and seller, export performance of the rubber export organization is also higher.

Table (1): Result analysis of causal influence of the model of relationship between buyer and seller, export marketing strategy, export advantage, international experience, readiness resource and global competitive force that affect the export performance of rubber export organization.

Effect Variable	Influence	Causal Variable					
		EA	IE	RR	GCF	BSR	EMS
EMS	DE	0.384*	0.413*	0.231*	0.270*	0.603*	
	IE	-	-	-	-	-	
	TE	0.384*	0.413*	0.231*	0.270*	0.603*	
	R2	0.794					
EP	DE	-	-	-	-	0.212*	0.682*
	IE	0.262*	0.282*	0.158*	0.184*	0.411*	-
	TE	0.262*	0.282*	0.158*	0.184*	0.623*	0.682*
	R2	0.564					

* $P < 0.05$

In addition, the result analysis of the model of EP can be written in terms of Structural Equation Model: SEM as below.

$$\text{EMS} = 0.384* \text{EA} + 0.413* \text{IE} + 0.231* \text{RR} + 0.270* \text{GCF} + 0.603* \text{BSR}; \quad \text{R2} = 0.794$$

$$\text{EP} = 0.212* \text{BSR} + 0.682* \text{EMS}; \quad \text{R2} = 0.564$$

In this research, the researcher has hypothesized 6 hypotheses as follows.

Table (2): Result of hypothesis testing

Research Hypothesis	Result of Hypothesis Testing	
	Influence	Accept/Reject
Hypothesis 1 Export advantage is cause-related with export performance.	INDIRECT	ACCEPT
Hypothesis 2 International experience is cause-related with export performance.	INDIRECT	ACCEPT
Hypothesis 3 Readiness resource is cause-related with export performance.	INDIRECT	ACCEPT
Hypothesis 4 Global competitive force is cause-related with export performance.	INDIRECT	ACCEPT
Hypothesis 5 Relationship between buyer and seller is cause-related with export performance.	DIRECT AND INDIRECT	ACCEPT
Hypothesis 6 Export marketing strategy is cause-related with export performance.	DIRECT	ACCEPT

6. Conclusion

Rubber processing industry need to adapt to survive amidst the need to develop marketing strategies against foreign competition, so it is very important to know which factors that also have cause-related with export performance. In addition, the findings of this study have revealed the correlation models of the factors influencing the efficiency of the Thai rubber export industry. The research findings are expected to be able to promote the formation of a pool of knowledge in terms of analyzing the factors affecting export business performance. According to the research findings, the main variable with direct influence on export business performance in the Thai rubber industry are the variables of marketing strategy for exports and the relationships between buyers and sellers indicating that organizations with marketing strategies for exports and good buyer-seller relationships will be able to improve the organization's export business performance. Therefore, entrepreneurs in organizations dealing in exports in the Thai rubber industry should be mindful of these factors and apply them to the management process in order to build strengths for their export marketing strategies, namely, products, prices, distribution and promotions as well as building relationships between buyers and sellers, namely, forming and maintaining those relationships, etc. However, the analysis model and pool of knowledge obtained can also be applied by many sectors.

7. Recommendations for Future Research

7.1 Models should be developed for comparison between models with good buyer-seller relationships and models with poor buyer-seller relationships, or other variable outcomes such as human resources management, personnel expertise, information technology systems, product distribution or products costs in order to analyzed and compare models in terms of size and direction of influence over each various and how each of the models are similar or different.

7.2 Additional studies should be conducted by using this conceptual framework on companies with business dealings in similar industries, such as companies operating businesses in the palm oil, textile, food and petroleum industries, etc. in order to affirm the research findings.

8. References

- Albaum, G., & D. K. Tse. (2001). Adaptation of International Marketing Strategy Components, Competitive Advantage, and Firm Performance: A Study of Hong Kong Exporters. *Journal of International Marketing* 9 (4), 59-81.
- Armario, Julia M., David M. Ruiz, & Enrique M. Armario, (2008). Market Orientation and Internationalization in Small and Medium-Sized Enterprises. *Journal of Small Business Management*, 46 (4), 485–511.
- Aulakh, P. S., Kotabe, M., & Teegen, H. (2000). Export strategies and performance of firms from emerging economies: Evidence from Brazil, Chile, and Mexico. *Academy of Management Journal*, 43(3), 342–361.
- Baldauf, A., D. W. Cravens & U. Wagner. (2000). Examining Determinants of Export Performance in Small Open Economies. *Journal of World Business* 35 (1), 61-79.
- Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management* 17 (1), 99-120.
- Bilkey, Warren and George Tesar, (1977). The Export Behavior of Smaller-Sized Wisconsin Manufacturing Firms. *Journal of International Business Studies* (Winter), 93- 98.
- Cadogan, J.W., Kuivalainen, O., Sundqvist, S. (2009). Report Market-Oriented Behavior and Export Performance: Quadratic and Moderating Effects under Differing Degree of Market Dynamism and Internationalization. *Journal of International marketing*, 17(4), 71-89
- Cavusgil, S. T., & S. Zou. (1994). Marketing Strategy-Performance Relationship: An Investigation of the Empirical Link in Export Market Ventures. *Journal of Marketing* 58 (1), 1-21.
- Chailom & Kaiwinit (2010). The Effects of International Experience, Organizational Learning for Export Activities, about local Competitive Force on Export Marketing Strategy, Export Advantage, and Performance of Export Firms in Thailand. *International Journal of Business Strategy*, 10, 156-166
- Department of International Trade Promotion, (2012). Export Statistics Commodity: 4001. Bangkok: Information Centre, Department of International Trade Promotion.
- Evangelista, F. U. (1994). Export Performance and Its Determinants: Some Empirical Evidence from Australian Manufacturing Firms. *Advances in International Marketing* 6, 207-229.
- Itthipassagul, P. & K. Blois. (2000). Managing Business Relationships in Thailand. *Journal of Asian Business* 16 (2), 71-85.
- Katsikeas, C. S., L. C. Leonidou & N. A. Morgan. (2000). Firm-Level Export Performance Assessment: Review, Evaluation, and Development. *Journal of the Academy of Marketing Science* 28 (4), 493-511.
- Lee, C. & D. Griffith. (2004). The Marketing Strategy-Performance Relationship in an Export-Driven Developing Economy: A Korean Illustration. *International Marketing Review* 21 (3), 321-334.
- Leonidou, L. C., C. S. Katsikeas & S. Samiee. (2002). Marketing Strategy Determinants of Export Performance: A Meta-Analysis. *Journal of Business Research* 55, 51-67.
- Ling-ye, L., & Ogunmokun, G. O. (2001). Effect of export financing resources and supply-chain skills on export competitive advantages: Implications for superior export performance. *Journal of World Business*, 36(3), 260–279.
- Ma, X., (2006). Beyond Transaction Cost Determinants: An Integrated Framework for Export Intermediary Selection in Emerging Economies. *Advances in International Marketing* 16, 23-48.
- Michalisin, M. D., R. D. Smith & D. M. Kline. (1997). In Search of Strategic Assets. *The International Journal of Organizational Analysis* 5 (4), 360-387.
- Nakos, G., Brouthers, K.D., Brouthers, L.E. (1998). The impact of firm and managerial characteristics on small and medium-sized Greek firms' export performance. *Journal of Global Marketing*, 11(4), 23-47.
- Nilsson, R. and Rapp, L. (2005). Business definition and performance. *Journal of Marketing* (Spring), 59-67.
- Peng, M. W. & A. S. York. (2001). Behind Intermediary Performance in Export Trade: Transactions, Agents, and Resources. *Journal of International Business Studies* 32 (2), 327-346.
- Piercy, N. F., A. Kaleka & C. S. Katsikeas. (1998). Sources of Competitive Advantage in High Performing Exporting Companies. *Journal of World Business* 33 (4), 378-393.
- Porter . (1990). *The Competitive Advantage of Nations*. New York: The Free Press
- Rose, Gregory M. and Aviv Shoham (2002). Export Performance and Market Orientation: Establishing an Empirical Link. *Journal of Business Research*, 55 (3), 217–25.
- Theingi, S. Purchase & Y. Phunghol. (2008). Social Capital in Southeast Asian Business Relationships. *Industrial Marketing Management* 37 (5), 523-530.
- White, S., Griffith, D. A., and Ryans, Jr., J. K. (1998). Measuring Export Performance in Service Industries. *International Marketing Review*, 15(3), 188 – 204.
- Zou, S., C. R. Taylor & G. E. Osland. (1998). The EXPERF Scale: A Cross-National Generalized Export Performance Measure. *Journal of International Marketing* 6 (3), 37-58.