

ตัวแบบของปัจจัยที่ส่งผลกระทบต่อผลการดำเนินงานในการส่งออกของ
บริษัทส่งออกสินค้าเกษตรกรรมในประเทศไทย

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THE COMPREHENSIVE MODEL OF THE DETERMINANTS ON
EXPORT PERFORMANCE OF AGRICULTURAL FIRMS
IN THAILAND

Miss Ajchara Kessuvan

A Dissertation Submitted in Partial Fulfillment of the Requirements
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วัตถุประสงค์ของงานวิจัยเรื่องนี้เป็น การพัฒนาตัวแบบที่เหมาะสมกับการศึกษาปัจจัยที่มีผล
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ดังกล่าวได้แก่ ปัจจัยด้านทรัพยากรขององค์กร (การสนับสนุนทรัพยากรในการส่งออก และความรู้
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ในการส่งออก โดยการสร้างตัวแบบได้ใช้กรอบแนวคิดของการศึกษาบนพื้นฐานของทฤษฎี
Resource-Based View, Industrial Organization, Internationalization Process และมุมมองของ
ผู้บริโภคในแง่ของการส่งออกสินค้าเกษตรกรรม

งานวิจัยเรื่องนี้มาจากการวิเคราะห์ข้อมูลจำนวน 369 ตัวอย่าง ซึ่งรวบรวมมาจากการส่ง
แบบสอบถามทางไปรษณีย์ โดยผู้ตอบแบบสอบถามมีตำแหน่งเป็นระดับผู้จัดการ ผู้บริหารฝ่าย
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ใช้การวิเคราะห์ด้วยโมเดลโครงสร้างเชิงสาเหตุ (Structural Equation Modeling) ด้วยโปรแกรมทาง
สถิติ LISREL 8.52 และ การวิเคราะห์ข้อมูลเชิงพรรณนา ด้วยโปรแกรมทางสถิติ SPSS 15.0

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ผลิตภัณฑ์ในการส่งออก ขณะที่ปัจจัยสภาพแวดล้อมภายนอกไม่มีอิทธิพลต่อกลยุทธ์ด้านผลิตภัณฑ์
ในการส่งออก (2) ปัจจัยด้านการสนับสนุนทรัพยากรในการส่งออก ความรู้ทางการตลาดระหว่าง
ประเทศ การรับรู้สถานะการแข่งขัน การกีดกันทางการค้าด้วยมาตรการทางภาษีและไม่ใช่ภาษี การ
สนับสนุนจากภาครัฐ มีอิทธิพลอย่างมีนัยสำคัญทางสถิติต่อผลการดำเนินงานในด้านการส่งออกของ
บริษัส่งออกสินค้าเกษตรกรรมในประเทศไทย และ (3) กลยุทธ์ด้านผลิตภัณฑ์ในการส่งออกไม่มี
อิทธิพลต่อผลการดำเนินงานในการส่งออก โดยผลการศึกษานี้ได้ขยายองค์ความรู้ด้านทฤษฎี เกี่ยวกับ
ปัจจัยที่มีผลกระทบต่อผลการดำเนินงานในการส่งออกของบริษัส่งออกสินค้าเกษตรกรรม ตลอดจน
นำเสนอแนวทางด้านการบริหารจัดการของบริษัท และการวางนโยบายของรัฐบาลในการสนับสนุน
การส่งออกสินค้าเกษตรกรรมของประเทศไทยต่อไปในอนาคต

สาขาวิชา...บริหารธุรกิจ.....ลายมือชื่อนิติติ.....
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KEYWORDS : COMPREHENSIVE MODEL / DETERMINANTS / EXPORT PERFORMANCE / AGRICULTURAL FIRMS / THAILAND

AJCHARA KESSUVAN: THE COMPREHENSIVE MODEL OF THE DETERMINANTS ON EXPORT PERFORMANCE OF AGRICULTURAL FIRMS IN THAILAND. ADVISOR: ASSOC. PROF. GUNTALEE RUENROM, Ph.D., 189 pp.

This study aims to develop a comprehensive model of the determinants on export performance of agricultural firms in Thailand. The empirical data are collected to examine the impacts of factors concerning the firm's resource (export commitment and international market knowledge), external environment (perceived competitive intensity, tariff and non-tariff barriers and government agency support), and export product strategy upon the export performance of agricultural firms. The conceptual framework in this study is based on the resource-based view theory, industrial organization theory, internationalization process theory and consumer perspective on agricultural exporting.

The model is analyzed by using data set of 369 observations that are collected through a mail survey. The respondents are export managers or executives who are responsible for exporting practices from agricultural exporting firms in Thailand including four main product categories: crop and grain, horticulture, fishery, and livestock and daily products. The Structural Equation Model (SEM) is formed and LISREL 8.52 is used for confirmatory factory analysis and structural model assessment to test eleven hypotheses in the model. SPSS 15.0 is used to analyze descriptive statistics.

The results of this study reveals threefold (1) firms' resources are found to have positive impacts on export product strategy, while external environmental factors are not found to have impacts upon export product strategy, (2) export commitment, international market knowledge, perceived competitive intensity, tariff and non-tariff barriers and government agency support are found to have impacts upon the export performance of agricultural firms in Thailand, and (3) export product strategy is not found to have statistically impact on the export performance. The empirical results of this study extend the body of knowledge for the determinants on export performance of agricultural firms in Thailand. In addition, this study provides managerial and policy maker contributions to enhance agricultural export of Thailand in the future.

Field of Study : Business Administration Student's Signature

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Chapter I

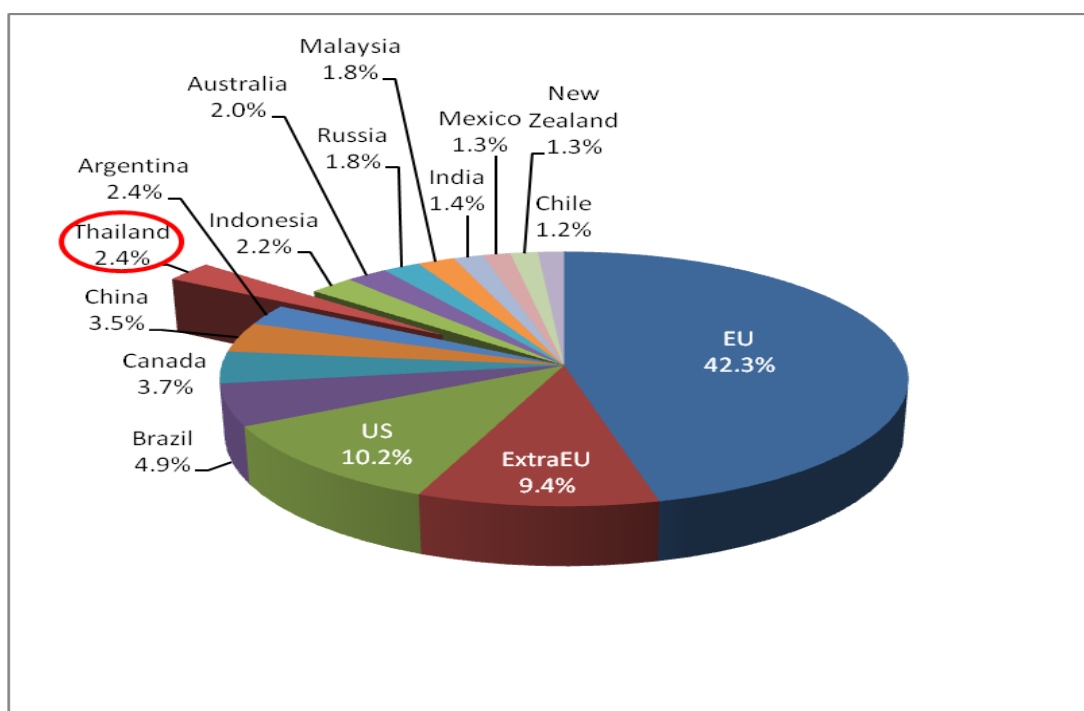
Introduction

1.1 Rationale

Exporting is an important activity from both a national and a company perspectives. It is critical for national economies because of the significant contributions it makes to employment, investment, trade balance, and economic growth (Czinkota, 1994; Gertner, Gertner and Guthery, 2006; Samiee and Walters, 1990). Exporting also helps firms achieve competitive advantage through improved financial position, increased capacity utilization, higher technological standards, and enhanced business performance (Katsikeas, 2003; Lages and Montgomery, 2004; Leonidou and Katsikeas, 1996).

The agricultural sector is regarded as the economic driving force in developing countries. It accounts for over one-third of export earnings for almost 50 developing countries (World Bank, 2009). The agricultural sector has also played an important role in the Thai economy (Zamroni, 2006) and Thailand is one of the world's major agricultural exporters as a result of natural resource abundance (Falvey, 2000). In 2009, Thailand was ranked 7th in the list of the 15 leading exporters and produced 2.4 percent of the world's agricultural exports (Figure 1.1).

Figure 1.1
15 World's Leading Agricultural Exporters in 2009



Source: World Trade Organization, 2010 : online

Agricultural Export Situation in Thailand

Thailand has global leadership in the production and export of a number of agricultural commodities, for example, rice, rubber, pineapples, and prawns. It also leads the Asian region in exporting chicken meat and several other commodities. Thai agricultural exports increased steadily over the 2000s primarily due to the sharp increase in export prices of agricultural products. The slump in exports in 2009 was the most severe since the 1960s because of the global economic recession (Thailand Economic Monitor, World Bank, June 2010). Exports of Thai agriculture and agro-products to the world market from 2002-2011 is shown in Table 1.1

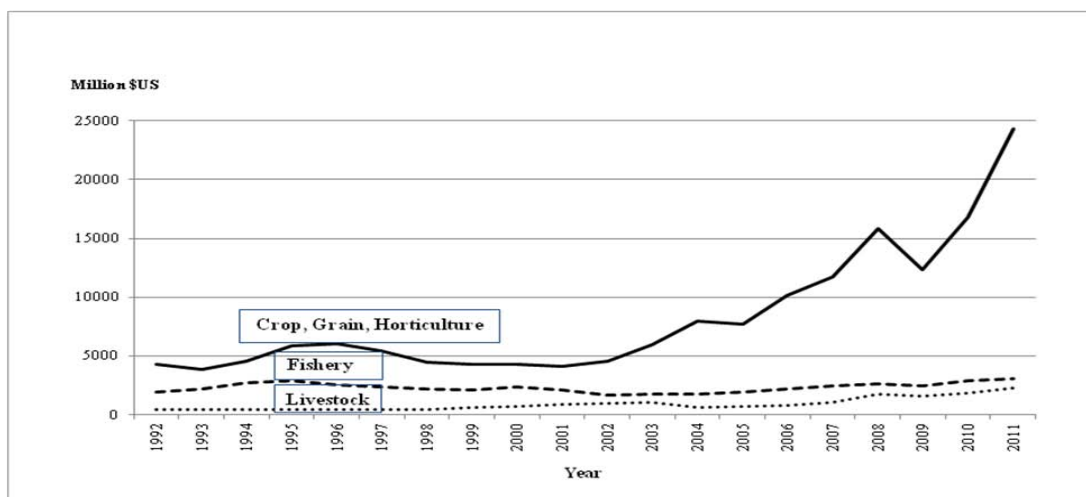
Table 1.1
Export Values of Thai Agriculture and Agro-Products during 2002-2011

Year	Agriculture (mil. \$US.)	Growth (%)	Agro (mil. \$US.)	Growth (%)
2002	7117.8	0.88	5098.9	5.83
2003	8797.1	23.59	5950.1	16.69
2004	10327.2	17.39	6369.9	7.05
2005	10447.3	1.16	7008.8	10.03
2006	13131.2	25.69	7970.6	13.72
2007	15167.7	15.51	9489.5	19.06
2008	20139.4	32.78	11714.0	23.44
2009	16429.9	-18.42	11264.5	-3.84
2010	21526.1	31.02	13222.9	17.39
2011	29601.3	37.51	17475.2	32.16

Source: Ministry of Commerce, 2012 : online

Export of agricultural products by category during 1992-2011 is shown in Figure 1.2.

Figure 1.2
Export of Thai Agricultural Products by Category during 1992 - 2011



Source: Ministry of Commerce, 2012 : online

Rubber and rice account for the most export value, while cassava, poultry, fishery products, and horticulture products are also important. The major destinations for Thai agricultural exports are China, Japan, the U.S, Malaysia and South Korea (Ministry of Commerce, 2012). Mizzi (1993) argued that despite their cost effectiveness, commodity-oriented agricultural firms were undergoing change inspired by a more demanding and differentiated consumer. To compete in the international market, the agricultural sector had to develop some specific competencies as well as strategies to respond to the more demanding foreign market (Aksoy and Kaynak, 1994; Bianchi and Garcia, 2007). As a result, agricultural firms should emphasize customer-orientation rather than focusing solely on price (Higgins and Mordhorst, 2008; Hingley and Lindgreen, 2002; Jiang, 2009; Li and Eadington, 1999).

Thai agricultural exports now face many challenges from other competitors, for example: Vietnam (rice, coffee, and shrimp), Malaysia (rubber), and China and Brazil (poultry). Thailand's Department of Export Promotion (2009) is promoting major agricultural exports such as organic shrimp and horticulture products to strengthen the sustainable competitiveness of the agricultural sector. They believe that if Thai exporters are able to produce good quality products and comply with the standards or demands of the foreign market, it would enhance the competitiveness of agricultural exports.

However, research on the export performance of the agricultural sector is lacking despite the importance of this sector to the world economy (Crick and Chaudhry, 2000). Although there are some studies on the performance of agricultural exporting firms, most of the studies are related to macro-level rather than firm-level behavior. This is because the previous studies were based on the discipline of agricultural economics and focused on national comparative advantage and factor efficiency (Crick and Chaudhry, 2000; Esterhuizen, van Rooyen and D'Haese, 2008; Mili and Zuniga, 2002; Yeung, Hobbs and Kerr, 2007). In addition, most of the studies employed qualitative analysis, using in-depth interviews, case-based analysis,

secondary data, descriptive analysis, and simple statistical methodology (e.g., Aksoy and Kaynak, 1994; Bianchi and Garcia, 2007; Ibeh, 2005; Mili and Zuniga, 2002; Murray, 1997; Selassie, Hill and Tzarev, 2002; Tesfom, 2008; Toften and Hammervoll, 2009).

As a result, there is a lack of firm-level research that would help Thai agricultural exporting firms to develop their own competencies and to export strategically. The consumer perspective of agricultural marketing posits that, since competition in the contemporary global environment is increasingly based on differentiated products and services, agricultural firms have to change from a traditional focus on comparative cost advantage and develop specific competencies and marketing strategies to compete in an increasingly demanding international market (Aksoy and Kaynak, 1994; Bianchi and Garcia, 2007).

The export performance literature has long been characterized by underuse of theoretically well-grounded conceptual models in hypothesis development and testing (Cavusgil and Zou, 1994; Sousa et al., 2008; Zou and Stan, 1998). Much of the literature on agricultural export performance does not specify any theoretical basis used in the study (e.g., Aksoy and Kaynak, 1994; Bianchi and Garcia, 2007; Crick, Chaudhry and Batstone, 2000; Ramaseshan and Souter, 1996; Roy and Thorat, 2008). This may be the reason for diverse and inconsistent results in the literature, which hinders theory advancement in the field (Balabanis et al., 2004).

Within the few theory-based exporting studies, two broad theoretical approaches have been identified. The earlier studies examined the antecedents of export performance using Industrial Organization Theory (IO) (Aaby and Slater, 1989; Cavusgil and Zou, 1994). IO theory contends that internal (i.e. firm and product characteristics) and external (i.e. market and industry characteristics) factors determine the firm's competitive strategy, which in turn determines export performance (Morgan et al., 2004). The logic is that the external environment imposes pressures to which a firm must adapt in order to survive and prosper (Zou and Stan,

1998). In contrast, some studies have relied on a Resource-Based View (RBV), arguing that the principal determinants of a firm's export performance are its internal organizational resources (Barney, 1991), particularly experience (O'Cass and Julian, 2003), financial and physical resources (Okpara, 2009), information (Ural, 2009), relationship building (Legas, Silva and Styles, 2009), and marketing capabilities (Blesa and Ripolles, 2008; Sefnedi, Mohamad and Ibrahim, 2007; Zou et al., 2003). In fact, these two theories can be integrated to establish the interplay between firms' resources and capabilities, competitive strategy, and the export market characteristics in determining performance outcomes (Calatone, Kim, Schmidt and Cavusgil, 2006; Morgan et al., 2003).

This research attempts to fill the gap identified above by developing a comprehensive model which emphasizes on firm-level behavior and explains the determinants of export performance for agricultural exporting firms in Thailand. In the model, export performance is determined by factors concerning the firm's resource and external environmental factors as well as the export product strategy of the firm.

For firm's resources, export commitment and international market knowledge are expected to influence export performance. These two constructs are also supported by Internationalization Process Theory (Johanson and Vahlne, 1977; Yip, Biscarri and Monti, 2000). However, empirical research on the impact of market knowledge on the export performance of agricultural firms is scarce and inconclusive (Chadee, 2002). Perceived competitive intensity, tariff and non-tariff barriers, and government agency support are environmental factors that affect firms to compete in the foreign market. In addition, to compete in the international market, the agricultural sector had to develop some specific competencies as well as strategies that could respond to the more demanding in the foreign market (Akskoy and Kaynak, 1994). Export product strategy has been highlighted in several studies of agricultural export performance (e.g., Mauget and Declerck, 1996; Morgan and Sarris, 1991; Murray, 1997; Rock and Ahmed, 2008; Van Rooyen, Esterhuizen and Doyer, 2001).

In conclusion, this research attempts to develop a comprehensive model to best fit and explain the export performance of agricultural exporting firms in Thailand based on firm-level behavior. Additionally, the international agricultural marketing perspective can be expanded by examining firm's resource and competitive strategic factor, instead of the traditional comparative advantage that has explanatory power at the national level. The validity of a firm-level approach is highlighted by Porter (1990) who argued that countries do not export but firms do, and the competitiveness depends on the capability of the industry.

1.2 Research Questions

The research questions for this study are as follows:

- 1) What is the comprehensive model that best fits and explains the export performance of agricultural exporting firms in Thailand?
- 2) Do the factors in a firm's resource, external environment and export product strategy significantly determine the export performance of agricultural exporting firms in Thailand?

1.3 Research Objectives

The objectives of this study are as follows:

- 1) To develop a comprehensive model that best fits and explains the export performance of agricultural exporting firms in Thailand.
- 2) To empirically examine the impacts of factors in a firm's resource, external environment and export product strategy upon the export performance of agricultural exporting firms in Thailand.

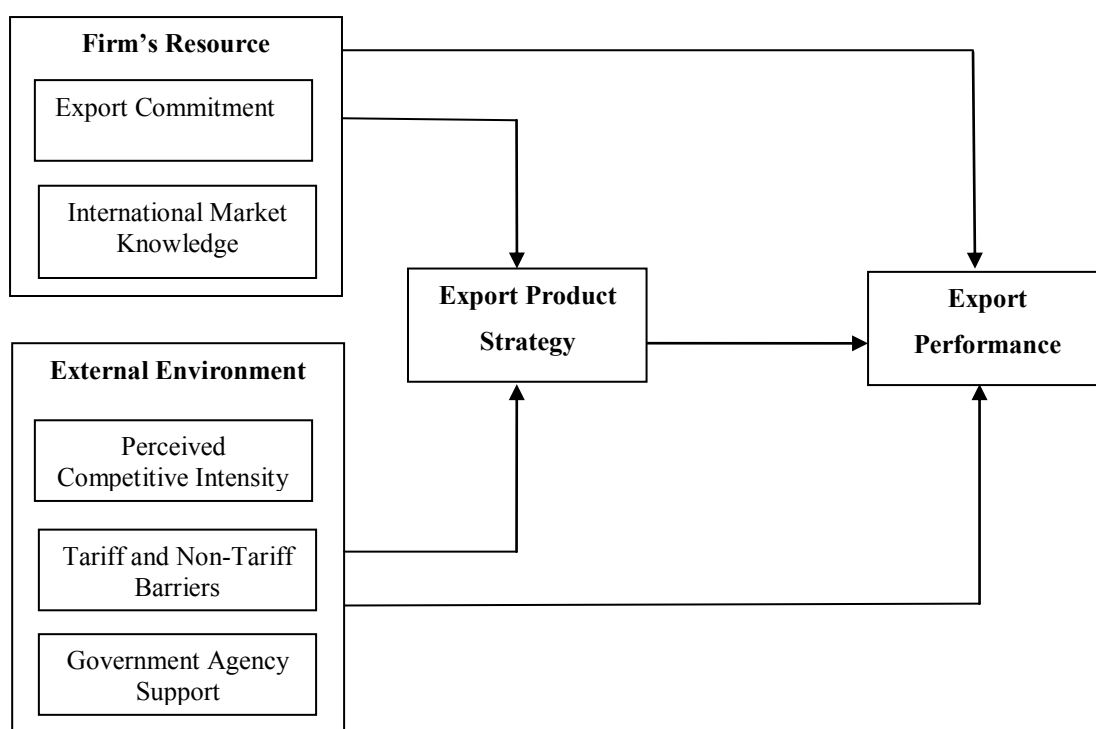
1.4 Scope of the Study

This study is conducted in the context of agricultural exporting firms located in Thailand. The major agricultural products under consideration are categorized by the Harmonize System into four major groups: crop and grain, horticulture, fishery products, and livestock and daily products (HS Code 100000000, Customs Department, 2012).

1.5 Framework of the study

The conceptual framework is presented in Figure 1.3. In the framework, a firm's resource, external environment and export product strategy have direct effects on export performance. In addition, firm's resource and external environment have indirect effects upon export performance through export product strategy.

Figure 1.3
A Conceptual Framework for a Model of the Determinants of Export Performance of Agricultural Firms in Thailand



1.6 Operational Definitions

- 1) Agricultural exporting firm is defined as an agricultural exporting firm located in Thailand which exports agricultural products categorized by the Harmonize System (HS code 100000000, Customs department, 2010) into four major groups: crop and grain, horticulture, fishery products, and livestock and daily products.
- 2) Export commitment is defined as the importance of financial and non-financial resources devoted to export-related activities (Cavusgil and Nevin, 1981: page 115).
- 3) International market knowledge is defined as the firm's knowledge about the foreign market. As Morgan, Zou, Vorhies and Katsikeas (2003) suggest, international market knowledge can be described as either experience-based or information-based knowledge. Experience related to performing exporting activities in the foreign market context has been identified as a particularly important knowledge resource (Cavusgil and Zou, 1994). Information concerning the firm's customers, competitors, channels, and broader environment in the target export market also contribute to international market knowledge (Souchon and Diamantopoulos, 1996).
- 4) Perceived competitive intensity is defined as the firm's perceived uncertainty in the external environment from the extent of foreign competitors in the export market (Ramaseshan and Souter, 1996: page 56).
- 5) Tariff and non-tariff barriers are defined as the complexity in the external environment stemming from policy, institutions, and regulations of governments in foreign export markets (Mavrogiannis, Bourlakis, Dawson and Ness, 2008: page 642).

- 6) Government agency support is defined as government agencies helping and strengthening agricultural exporting firms in ways such as facilitating information exchange, sharing resources, and exercising bargaining power.
- 7) Export product strategy is defined as the means by which a firm responds to market forces to meet its objectives, via all aspects of the product mix strategy in the export market (O’Cass and Julian, 2003, p.373) focusing on product quality (Bianchi and Garcia, 2007), product safety (Roy and Thorat, 2008) and product adaptation (Leonidou, Katsikeas and Samiee, 2002).
- 8) Export performance is defined as the outcome of exporting products and services into foreign markets (Shoham, 1996: page 54). It can be measured in terms of objective and subjective measures (Sousa, 2004). Objective performance is measured by sales growth rate during the past four years. Subjective performance is measured by market-based measures looking at marketing performance relative to original objectives set.

1.7 Contributions

1.7.1 Theoretical Contributions

- 1) The study extends the body of knowledge in export performance by developing a comprehensive model to investigate the determinants that might enhance the export performance of agricultural exporting firms in Thailand.
- 2) The frontier of the consumer perspective on agricultural exporting can be expanded. The study will substantiate the significance of a firm’s resource, external environmental factors and export product strategy in contributing to a firms’ export performance.

3) The study substantiates the theoretical link between export commitment and international market knowledge which lead to export performance of agricultural exporting firms in Thailand.

1.7.2 Managerial Contribution

Export managers of agricultural firms in Thailand can identify the factors that are most significant in helping their firms compete in the international marketplace.

1.7.3 Policy-maker Contribution

Policy makers such as the Ministry of Commerce and Ministry of Agriculture and Cooperatives can utilize the results of this research in order to help formulate policy and strategy to assist Thai agricultural firms to compete in the world market.

1.8 The Structure of the Study

Chapter 2 is the literature review. Here the researcher presents information from the literature about the agricultural exporting situation in Thailand and reviews previous research on export performance measurement and determinants. This chapter also includes a summary of previous studies related to the export performance of agricultural firms, the theoretical background related to this study, and the conceptual framework for the study.

Chapter 3 presents the proposed model and research hypotheses. There are eleven hypotheses which are proposed to be empirically tested in the model.

Chapter 4 presents the research methodology. The researcher explains the target population, unit of analysis, sampling methodology, instrument and

operationalization, and the data collection and data analysis techniques used in this study.

Chapter 5 is data analysis. Here the a researcher presents the data collection process and the data analysis process, which includes data preparation, business profile, descriptive analysis, the quality assessment of the research instruments, structural model assessment, the testing of the eleven hypotheses in the study, and the supplementary findings of in-depth interview with exporting executives.

Chapter 6 is the final chapter. It presents the conclusions, discussions and theoretical, management, and policy-maker contributions of the study. In addition, the limitations and suggestions for future research are identified.

1.9 Summary

This chapter describes the rationale of this study. The study originates from recognition of the lack of a comprehensive model based on firm-level behavior that can explain the export performance of agricultural exporting firms in Thailand. In addition, the previous export performance literature has largely ignored the agricultural sector, has been qualitatively oriented, and has largely lacked a rigorous theoretical basis. Research questions as well as research objectives are identified. The scope of the study is indicated, and the research framework is defined. The research framework focuses on how a firm's resource and external environmental factors, as well as export product strategy, determine the export performance of agricultural firms in Thailand. Finally, operational definitions of all constructs and the expected contributions of the study from the theoretical, managerial, and policy-maker perspectives are presented.

Chapter II

Literature Review

This chapter is organized into four sections. The first reviews the literature on agricultural exports in Thailand. The second section covers literature related to the theoretical background for this study. The third section addresses the literature on export performance, its measurement and determinants, as well as providing a summary of the previous studies on agricultural exporting firms. The final section presents an overview of the conceptual framework for the study

2.1 Agricultural Exporting in Thailand

Exporting is a crucial business activity for a national economy since it significantly contributes to employment, investment, trade balance, and economic growth (Czinkota, 1994; Gertner, Gertner and Guthery, 2006; Samiee and Walters, 1990). In the globalization era, exporting also plays a key role in enabling firms to achieve sustainable competitive advantage because it facilitates improved financial position, increased capacity utilization, higher technological standards, and enhanced business performance (Katsikeas, 2003; Lages and Montgomery, 2004; Leonidou and Katsikeas, 1996).

According to International Trade Statistics (WTO, 2010), the annual average growth by product group for world exports in 2008 was 33 percent for fuel and mining products, 19 percent for agriculture, and a relatively low 10 percent for manufactured goods. Table 2.1 shows the annual average growth of world exports by product group. The agricultural sector is regarded as the economic driving force in developing countries and it accounts for over one-third of export earnings for almost 50 developing countries (World Bank, 2009).

Table 2.1
World Export Annual Average Growth by Product Group in 2009

Unit: Billion US Dollars and percentage

	Agricultural products	Fuel and Mining	Manufacturers
Value	1169	2263	8355
Share in world merchandise trade	9.6	18.6	68.6
Annual percentage change			
1980-1985	-2	-5	2
1985-1990	9	3	15
1990-1995	7	2	9
1995-2000	-1	10	5
2000-2009	9	11	7
2007	20	15	15
2008	18	33	10
2009	-13	-36	-20

Source: World Trade Organization, 2010 : online

Encouraging exports is one of the most important policies for the Thai government. Export earnings can help to reduce the trade deficit and help the Thai economy to recover from economic crisis. The successful performance of exporting firms is therefore essential to the Thai economy. Exports have remained the engine of growth for Thailand over time (WTO, 2009). In 2009, Thailand ranked 26th among the leading exporters in world merchandise trade with exports valued at 177,844 million dollars or about 1.1 percent of total world exports, compared with 54,456 million dollars in 1998.

The agricultural sector has played an important role in developing the Thai economy and the Thai government has opened up the sector to international competition (Zamroni, 2006). Thailand is one of the world's major agricultural exporters as a result of natural resource abundance (Falvey, 2000). Thailand was ranked 7th among the 15 leading exporters of agricultural products in 2009 and

exported around 2.4 percent of the world's agricultural exports, as shown in Table 2.2.

Table 2.2
15 World Leading Agricultural Exporters

Unit: Billion US Dollars and percentage

Country	Value			Share in world exports			Annual percentage change		
	2009	1980	1990	2000	2009	2000-2009	2007	2008	2009
1. EU (27)	495	-	-	41.8	42.3	9	20	16	-13
Extra EU	110	-	-	10.1	9.4	8	16	17	-14
2. United States	120	17	14.3	12.9	10.2	6	23	23	-15
3. Brazil	58	3.4	2.4	2.8	4.9	16	22	27	-6
4. Canada	44	5	5.4	6.3	3.7	3	10	11	-19
5. China	41	1.5	2.4	3	3.5	11	19	9	-3
6. Argentina	28	1.9	1.8	2.2	2.4	10	35	30	-25
7. Thailand	28	1.2	1.9	2.2	2.4	10	16	27	-12
8. Indonesia	25	1.6	1	1.4	2.2	14	33	38	-23
9. Australia	23	3.3	2.9	3	2.0	4	1	17	-10
10. Russian	21	-	-	1.4	1.8	12	36	1	-12
11. Malaysia	21	2	1.8	1.5	1.8	11	32	35	-25
12. India	17	1	0.8	1.1	1.4	12	34	30	-23
13. Mexico	16	0.8	0.8	1.6	1.3	6	8	9	-9
14. New Zealand	15	1.3	1.4	1.4	1.3	8	21	12	-14
15. Chile	15	0.4	0.7	1.2	1.2	10	23	6	-2
Above 15	966	-	-	83.7	82.6	-	-	-	-

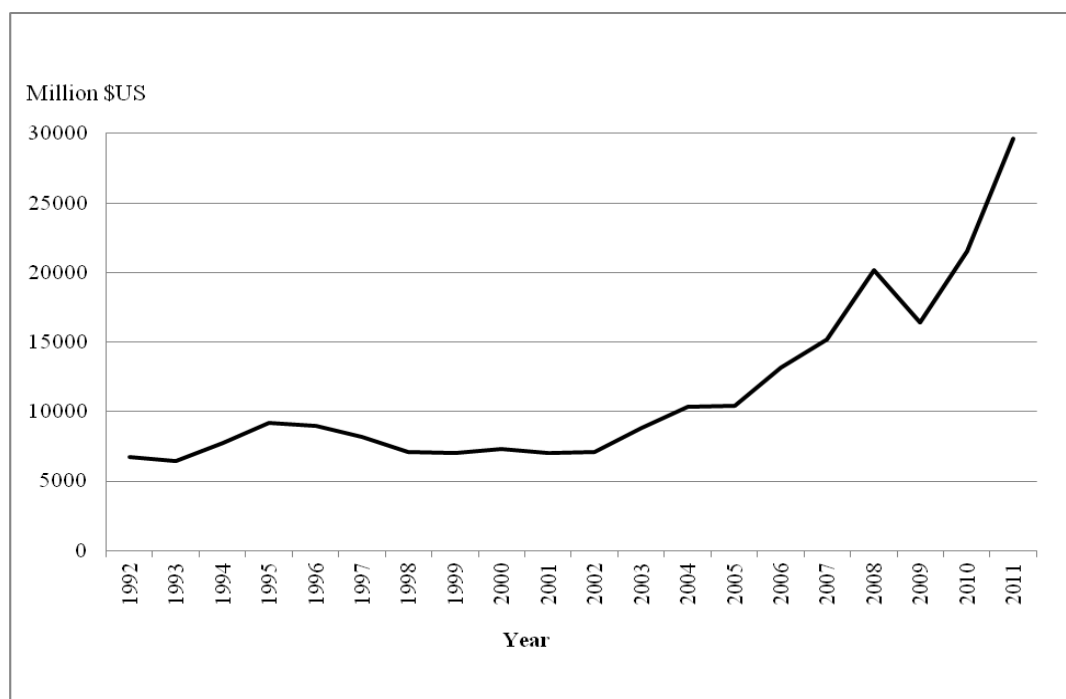
Source: World Trade Organization, 2010 : online

On the basis of comparative advantage, Thailand's leading sectors should be agricultural and related process industries. The agricultural sector declined in relative financial importance in terms of income with the rising industrialization of Thailand from the 1960s, but its importance in terms of employment, self-sufficiency, rural social support, and cultural preservation continues. Thailand has global leadership in the production and export of a number of agricultural commodities, for example: rice,

rubber, pineapples, and black tiger prawns. It also leads the Asian region in exporting chicken meat and several other commodities.

Thai agricultural exports have grown steadily over the past decade primarily due to the sharp increase in export prices of agricultural products in two main categories: traditional products, mainly rubber, rice, and tapioca, as well as modern agricultural products such as fresh, chilled, and frozen prawns. The slump in export growth in 2009 was the most severe since the 1960s because of global economic recession (Thailand Economic Monitor, World Bank, June 2010). The export value of Thai agricultural products from 1992-2011 is shown in Figure 2.1. Thai agricultural products can be categorized by product groups according to the Harmonize System (HS Code 10000000) into crop and grain, horticulture, fishery products, and livestock and daily products.

Figure 2.1
Export of Thai Agricultural Products during 1992-2011



Source : Ministry of Commerce, 2012 : online

The top 10 agricultural export product values for Thailand and the major destination countries for Thai agricultural exports are shown in Table 2.3 and Table 2.4, respectively. Rubber and rice generate the highest export values, followed by fishery products, cassava, horticulture, and poultry. The major destinations of Thai agricultural export are China, Japan, the U.S, ASEAN, and the EU (Ministry of Commerce, 2012).

Table 2.3
Top 10 Export Values of Thai Agricultural Products

(Unit: Million \$US.)

Products	2009	2010	2011	Percentage Change
Natural rubber	4,305.85	7,896.03	13,176.35	66.87
Rice	5,046.46	5,341.08	6,507.47	21.84
Cassava	1,519.58	2,161.37	2,643.81	22.32
Poultry	1,385.53	1,593.79	1,892.17	18.72
Shrimp	1,353.72	1,679.98	1,727.94	2.85
Fruits	525.55	543.89	962.63	76.99
Fish	373.06	396.01	410.98	3.78
Squid	327.68	351.58	407.26	15.84
Vegetables	195.85	207.22	242.64	17.09
Fish	216.07	214.53	236.83	10.39
Others	137,177.18	174,921.21	20,0617.20	14.69
Total	152,426.53	195,306.69	228,825.28	17.16

Source: Ministry of Commerce, 2012 : online

Table 2.4
Exports of Thai Agricultural Products by Principle Destination Countries

(Unit: Million \$U.S.)

Country	2009	2010	2011	Percentage Change
China	2,879.93	4,188.37	7301.11	74.32
Japan	2,301.94	3,244.90	4,268.48	31.54
U.S.A.	1,520.24	2,031.86	2,482.83	22.19
Malaysia	1,130.95	1,656.13	2,027.13	22.40
South Korea	419.74	763.42	1,190.81	55.98
Indonesia	308.53	414.28	938.19	126.46
Nigeria	577.56	640.10	776.57	21.32
United Kingdom	560.80	665.43	752.52	13.09
Hong Kong	491.06	472.62	538.80	14.00
Taiwan	270.02	351.47	475.13	35.18
Others	5,969.14	7,097.54	8,849.69	24.68
Total	16,429.91	21,526.12	29,601.26	37.51

Source: Ministry of Commerce, 2012 : online

Thai agricultural exports face many challenges from other competitors including Vietnam (rice, coffee, and shrimp), Malaysia (rubber), and China and Brazil (poultry). Thailand's Department of Export Promotion (2009) promotes the major agricultural exports such as organic shrimp and horticulture in order to strengthen the sustainable competitiveness of the agricultural sector. They believe that if Thai exporters were able to produce good quality products and comply with the standards and demands of foreign markets, it would enhance the competitiveness of agricultural exports.

Studies on the export performance of the agricultural sector are limited (Bianchi and Garcia, 2007; Crick and Chaudhry, 2000) and many of the studies are related to macro-level, rather than firm-level behavior. This is because many previous

studies have been based on the discipline of agricultural economics and focused on national comparative advantage and factor efficiency (Crick and Chaudhry, 2000; Esterhuizen, van Rooyen and D’Haese, 2008; Mili and Zuniga, 2002; Yeung, Hobbs and Kerr, 2007). In addition, most of the previous studies on agricultural exports have employed qualitative analysis using in-depth interviews, case based analysis, secondary data, descriptive analysis and simple statistical methodology (e.g., Aksoy and Kaynak, 1994; Bianchi and Garcia, 2007; Ibeh, 2005; Mili and Zuniga, 2002; Murray, 1997; Selassie, Hill and Tzarev, 2002; Tesfom, 2008; Toften and Hammervoll, 2009). As a result, there is a lack of research that would help agricultural exporting firms to develop their own competencies and export strategically. A comprehensive model is needed to fill this gap in the literature.

2.2 Export Performance

Cavusgil and Nevin (1981: page 114) provided a comprehensive definition of exporting as “*the marketing-related decisions and activities of firms which are engaged in international business*”.

Shoham (1996: page 54) offered a simple conceptual definition that “*export performance refers to the outcome of exporting products and services into foreign markets*”. Since the term “export performance” has been used in different ways according to the particular objectives of researchers, there is no uniform operational definition of export performance in the literature (Cavusgil and Zou, 1994). The measure of export performance is explained as follows.

2.2.1 Measures of Export Performance

The measure of export performance has been discussed widely in previous research (Diamantopoulos, 1999; Katsikeas, Leonidou and Morgan, 2000; Shoham, 1998; Sousa, 2004), but there is still no agreement on how to capture the construct adequately. Most researchers have agreed that export performance is a complex

construct and it is best conceptualized as a multifaceted concept, thus the use of single item measure is insufficient to capture it (Katsikeas et al., 2000; Shoham, 1998; Rose and Shoham, 2002). As a result, several studies developed multi-item measures of export performance (e.g., Shoham, 1998; Styles, 1998; Zou, Taylor and Osland, 1998).

Shoham (1998) developed a conceptualization of export performance empirically using data from 93 Israeli exporters. He defined export performance as a composite outcome of firms' international sales, and its operational definition included three sub-dimensions: export sales volume, export profitability, and changes in export sales or profitability.

A distinguished attempt to deal with the multidimensional nature of the export performance construct was the EXPERF scale developed by Zou et al. (1998). This scale was a composite measure combining both economic and strategic dimensions as well as objective and subjective measures in the operational definition of export performance.

Leonidou, Katsikeas and Samiee (2002) conducted a meta-analysis and found the most frequently used measures in the reviewed studies were export intensity, export sales growth, export profit level, export sales volume, export market share, and export profit contribution. They pointed out that since firms did not report the financial details of their export activities, it was difficult or even impossible to access reliable financial data.

Recently, Sousa (2004) reviewed 43 empirical studies relating to the measurement of export performance published between 1998 and 2004, and identified 50 different operational aspects of export performance. He classified them into objective (quantitative or economic) and subjective (attitudes, perceptions, or non-economic) indicators. This was supported in studies by Carneiro, Rocha and Silva (2007) and Ratanasithi and Hemphill (2006).

To summarize from previous literature, export performance measurement can be broadly categorized by objective and subjective measures. Objective measures consist of financial data on sales, profit, and market share, while subjective measures focus on attitude or perception toward figures, general, and other miscellaneous items. A summary of export performance measures used in previous studies is shown in Table 2.5.

Table 2.5
Summary of Export Performance Measures Used in Previous Studies

Performance Measures	Studies
<i>Objective measures</i>	
<u>Sales-related</u> Export intensity, Export intensity growth, Export sales growth, Export sales volume, Export sales efficiency	Aulakh, Kotabe and Teegen (2000), Cadogan, Cui and Li (2003), Cavusgil and Zou (1994), Gomez and Valenzuela (2005), Lee and Yang (1990), Shoham (1998),
<u>Profit-related</u> Export profitability, Export profit margin, Export profit margin growth	Aulakh, Kotabe and Teegen (2000), Lee and Yang (1990), Rose and Shoham (2002), Shoham (1998)
<u>Market-related</u> Export market share, Export market share growth, Market diversification	Aulakh, Kotabe and Teegen (2000), Rose and Shoham (2002), Shoham (1998)
<i>Subjective measures</i>	
<u>Sales-related</u> Export intensity growth compared to competitors, Export sales volume/growth compared to competitors, Perceived sales, Sales expectation	Altintas, Tokol and Harcar (2007), Cadogan, Cui and Li (2003), Julian (2003), Leonidou, Katsikeas and Samiee (2002), Piercy, Kaleka and Katsikeas (1998), Raymond, Kim and Shao (2001), Shoham (1998), Zou, Fang and Zhao (2003)

Table 2.5 (Cont.)
Summary of Export Performance Measures Used in Previous Studies

Performance Measures	Studies
<u>Profit-related</u> Export profitability compared to competitors, Perceived profitability, Profit expectation	Blesa and Ripolles (2008), Cadogan, Cui and Li (2003), Julian (2003) Leonidou, Katsikeas and Samiee (2002), Piercy, Kaleka and Katsikeas (1998), Raymond, Kim and Shao (2001), Shoham (1998), Zou, Fang and Zhao (2003)
<u>Market-related</u> Export market share compared to competitors, Export market share growth compared to competitors, Rate of new market entry compared to competitors	Altintas, Tokol and Harcar (2007), Blesa and Ripolles (2008), Leonidou, Katsikeas and Samiee (2002), Piercy, Kaleka and Katsikeas (1998)
<u>General</u> Overall export performance, Overall export performance compared to competitors, Export success, Meeting expectations, Strategic export performance	Calantone, Kim, Schmidt and Cavusgil (2006), Gertner, Gertner and Guthery (2006), Julian (2004), Lee and Griffith (2004), O'Casey and Julian (2003), Prasad, Ramamurthy and Naidu (2001), Shoham, Ecangelista and Albaum (2002)
<u>Miscellaneous</u> (Customer satisfaction, Quality of distribution relationship, Product/service quality compared to competitors, Reputation of the firm compared to competitors)	Legas, Silva and Styles (2009), Morgan, Kaleka and Katsikeas (2004), Morgan, Zou, Vorhies and Katsikeas (2003), Prasad, Ramamurthy and Naidu (2001), Ural (2009)

Source: Adapted from Sousa (2004).

Considering the problems of export performance measurement, Shoham (1998: page 61) suggested that “*studies of performance may differ in definitions to the extent that they address different problems.*” This implies that export performance

measurement may depend on contextual factors that are research-method-specific, related to the ability of research design to overcome measurement problems, or export-business specific (Katsikeas *et al.*, 2000). Therefore, this study will measure export performance in terms of both objective and subjective measures to overcome measurement problems.

2.2.2 The Determinants of Export Performance

As exporting has been the most popular mode of international market entry, investigation of the determinants of export performance has been an important topic of international marketing research (Aaby and Slater, 1989; Leonidou *et al.*, 2002). Therefore, several review and meta-analysis studies synthesizing the determinants of export performance are available (Aaby and Slater, 1989; Chetty and Hamilton, 1993; Leonidou *et al.*, 2002; Sousa, Martinez-Lopez and Cohelo, 2008; Zou and Stan, 1998).

One of the earlier attempts to review the research on export performance was conducted by Aaby and Slater (1989). They reviewed 55 empirical studies from 1978 to 1988, and proposed that the determinants of export performance were based on management influences, which were grouped into firm characteristics, firm competence, and export strategy. They also argued that organizational competencies were probably more important than firm characteristics. Chetty and Hamilton (1993) conducted a meta-analysis of 100 studies published from 1978 to 1991. They supported the significance of management variables (commitment, perception, and competencies) in Aaby and Slater's (1989) framework, and agreed that firm competencies were more important than firm characteristics.

Cavusgil and Zou (1994) developed one of the earlier export performance frameworks based on industrial organization theory using a survey of 202 export ventures. They contended that export performance was determined mainly by export marketing strategy and some internal organizational factors such as managerial

commitment and international competence. The external factors and other internal factors had only indirect effects on export performance through export marketing strategy.

Zou and Stan (1998) examined 50 export performance studies published between 1987 and 1997. They suggested that the determinants of export performance were internal and external factors. Internal factors included export marketing strategy (the 4Ps) and factors related to management attitudes and perceptions. The internal factors also included uncontrollable factors such as management characteristics and firm characteristics and competencies. They also proposed three categories of external uncontrollable determinants: industry characteristics, foreign market characteristics, and domestic market characteristics.

Leonidou et al. (2002) conducted a meta-analysis of the marketing strategy determinants of export performance in studies published from the 1970s to 1990s. They reviewed 36 studies and suggested that although many marketing strategy variables demonstrated positive effects on overall export performance, the relationship was not always significant. They suggested more research be conducted on the role of managerial, organizational, and environmental elements that influence export marketing strategy and export performance.

Recently, Sousa et al. (2008) reviewed 52 articles published between 1998 and 2005 to assess the determinants of export performance. They identified that two broad theoretical approaches, the resource-based paradigm and the contingency paradigm, which is rooted in industrial organization theory, provided the basis for classifying the determinants of export performance into internal and external factors. They concluded that internal factors are firm and management characteristics and export marketing strategy, while external factors are foreign market and domestic market characteristics.

A general conclusion derived from these studies was a lack of consensus among researchers on what exactly the determinants of export performance were, and to what extent they affected export performance. The previous studies had different and sometimes conflicting findings due to the lack of a robust theoretical framework, inconsistent conceptualization and operationalization of key constructs, failure to incorporate theories established in other disciplines, and using relatively simple methodology and statistical tools for data analysis (Balabanis, Theodosiou and Katsikea, 2004; Katsikeas et al., 2000; Morgan et al., 2004).

Another important issue is most previous studies focused on multiple export industries (Karelakis, Mattas and Chrysochoidis, 2008). The inconclusive results showed that exporters in different industries were likely to emphasize different factors as being important in affecting export performance (Sohail and Alashban, 2009). Many of the empirical studies were also conducted in industrialized countries and reported data from manufacturing firms rather than from other sectors (Crick and Chaudhry, 2000). Sousa et al. (2008) suggested that future research should focus on single- and related-industry studies. The appropriate variables that related to the specific characteristics of the particular exporting industry might then be found.

2.2.3 Previous Literature on Export Performance of Agricultural Firms

Crick and Chaudhry (2000) pointed out that empirical studies undertaken in developed and highly industrialized countries tended to report data from the sectors that produced manufactured goods rather than from other trade sectors. Therefore, little was known about the key influences on export behavior of agricultural sector (Ibeh, 2005). The limited amount of research that has focused on agricultural-related products is discussed as follow:

Aksoy and Kaynak (1994) investigated successful export behavior for firms exporting fresh produce using interviews and case studies based on seven exporters of fresh fruit and vegetables to the UK market. External factors, including geographic

location, natural resource endowments, physical and non-physical distance to recipient markets, and government involvement, and internal factors such as organizational structure and ownership of firms, objective and motivations to export, and marketing management components, were identified as major influential factors for the operation and performance of exporters of fresh produce.

This study was one of the earlier studies in which the findings indicated that the success of agricultural sector was determined primarily by firms rather than by nations, and firms' export behavior and performance were determined jointly by influential background factors and by the firm's marketing management activities. There were a few more qualitative-oriented studies trying to describe the possible drivers of firms' export success. Ates and Sen (1998), based on a study of 72 agro-SMEs in Turkey, agreed with Aksoy and Kaynak (1994) that managerial characteristics such as knowledge, language capability, experience, and motivation as well as marketing management were key factors for exporting firms.

Ibeh (2005) studied the international market success of five UK agribusiness SMEs through interviews, the case-based approach, and content analysis. They recognized the importance of management international orientation, experiential knowledge, physical resources and know-how, product and service competencies, and relationship with business partners. Bianchi and Garcia (2007) studied export marketing strategies as success factors for 12 Chilean food exporters (salmon, wine, fruit), and concluded that the food industry in developing countries had to avoid excessive dependence on traditional comparative advantage through the development of specific competencies that could meet the demands of the international market. High quality and value-added products, marketing research, country image, and management were the main factors for successful exporters in developing countries.

More research during the past decade has employed quantitative techniques to examine the relationships between influencing factors and export performance. Boughanmi, Al-Mandheri, Al-Oufi and Omezzine (2007) identified the key variables

affecting export performance at the firm level of 30 Oman fish processing exporters. They suggested that four sets of firm-level specific factors affected the export performance measured by export intensity: 1) firm size and competencies, 2) management characteristics, 3) management perceptions and attitude, and 4) marketing strategy. They found manager's education, work experience, export commitment, diversification, and information on foreign markets were all significant variables, positively affecting export performance.

Rock and Ahmed (2008) studied the export performance of 133 Chilean exporters of natural-based products including both primary and processed foods, and suggested the internal factors affecting export sales growth were R&D, cooperation and alliance, long-term commitment to export, securing of financing, and timely assessment of foreign needs. On the other hand, Matanda and Freeman (2009) studied the effect of external factors, including perceived environmental uncertainty, on the export performance improvement of 262 Zimbabwean horticulture exporters, and suggested that market turbulence and competitive intensity had negative effects on the export performance improvement of fresh produce exporters.

In Thailand, there have been few studies conducted on the export performance of agro-based manufacturing firms. Tooksoon and Mohamad (2008; 2010) studied the export performance of agro-based manufacturers in Thailand. The first study in 2008 concentrated on the marketing capabilities, including product, price, channel and promotion capabilities, which positively affected the export performance of firms. The second study in 2010 confirmed the impact of networking resources based on relational behavior on a firm's perceived financial export performance. Kantipipat (2009) studied 324 firms exporting Thai processed agricultural products using quantitative analysis and found that firm characteristics and managerial characteristics were significant to the export marketing strategy (product adaptation), and export performance.

A summary of the previous literature on the firm's exporting of agricultural products is shown in Table 2.6

Table 2.6
Summary of previous literature on firm's exporting of agricultural products

Authors	Sample	Methodology	Theoretical Basis	Main focus	Factors of interest		Results
					Internal	External	
Grisrud (1990)	114 Norwegian fishery exports to Japan	Quantitative analysis (discriminant and regression)	Not specified	Export decisions and attitudes	<ul style="list-style-type: none"> Export experience Product categories Firm's size Perceived barriers/opportunities 		<ul style="list-style-type: none"> Size impacts exp. decision Product categories influence experience Perceived barriers differ with. experience
Torok and Schroeder (1992)	79 Small US agribusiness and non-agribusiness	Quantitative analysis (chi-square test)	Not specified	Export problems and assistance needs	<ul style="list-style-type: none"> Domestic sales Product safety and labeling Construction and Zoning regulations Obtaining loans Financing new tech. 		<ul style="list-style-type: none"> Agribusinesses have significantly different perceived technical assistance needs than non-agribusinesses.
Aksoy and Kaynak (1994)	7 fresh fruit and vegetable firms exporting to UK market	Qualitative analysis (interview and case studies)	Not specified	Export marketing success (trend of export profits, trend of sale volumes, export prices achieved, overall reputation)	<ul style="list-style-type: none"> Organization & Motivation Product, R&D, Quality control, Pricing, Branding, Distribution and Promotion 	<ul style="list-style-type: none"> Location, Resources and Overseas support 	Descriptive
Barringer, Wortman and Macy (1994)	119 Small US agribusiness firms	Qualitative analysis (frequency, correlation tests)	Organizational Process	<ul style="list-style-type: none"> - Export barriers (export desirability, export risk and export complexity) - Export intensity 	<ul style="list-style-type: none"> Export planning Export specific information search Firm planning horizon 		Association between export barriers and export intensity <ul style="list-style-type: none"> Desirability-positive Risk, Complexity-negative

Table 2.6 (Cont.)
Summary of previous literature on firm's exporting of agricultural products

Authors	Sample	Methodology	Theoretical Basis	Main focus	Factors of interest		Results
					Internal	External	
Mauget and Declerck (1996)	27 agricultural cooperatives from Germany, Spain, Denmark, UK, Ireland and The Netherlands	Qualitative analysis (interviews and secondary data)	Not specified	Strategies, structures and performance of agricultural cooperatives (economic performance)	<ul style="list-style-type: none"> • Financial resources • Differentiation vs. Cost leadership • Concentration and Partnership • Export vs. Internationalization 	<ul style="list-style-type: none"> • Level of competition 	Descriptive
Ramaseshan and Souter (1996)	231 Small Australian horticultural exporters and non-exporters	Quantitative analysis (factor analysis, logistic regression analysis)	Not specified	Export incentives and barriers to decisions to export	<ul style="list-style-type: none"> • Market familiarity • Market demand • Transport concerns • Domestic competition • Financial concerns 	<ul style="list-style-type: none"> • Foreign competition • Trade restriction 	Variables associated with exp: <ul style="list-style-type: none"> • Intense domestic competition • Transport concerns • Foreign competition
Murray (1997)	26 Small Chilean grape growers in the rural	Qualitative analysis (interviews and secondary data)	Not specified	Global fruit export markets		<ul style="list-style-type: none"> • Increased competition • Stagnation in the growth of exports 	4 problems for growers are finance, information, organization, education/training
Crick and Chaudhry (2000)	101 UK SMEs (agri-, fishing, and machinery)	Qualitative (questionnaire and simple stats)	Not specified	Perceived export barriers and government assistance requirement	<ul style="list-style-type: none"> • Collection of payments • Inability to offer competitive prices 	<ul style="list-style-type: none"> • Unfavorable exchange rate/currency 	Descriptive

Table 2.6 (Cont.)
Summary of previous literature on firm's exporting of agricultural products

Authors	Sample	Methodology	Theoretical Basis	Main focus	Factors of interest		Results
					Internal	External	
Crick, Chaudhry and Batstone (2000)	101 UK SMEs exporting agricultural-related products	Qualitative and Quantitative (questionnaire and Interview, MANCOVA)	Not specified	- Export success - Export expansion strategy (concentration vs. spreading)	<ul style="list-style-type: none"> • Firm size • Firm experience • Export commitment 		Commitment plays major role for differences in strategy and perceived performance
van-Voorthuizen, Duval and O'Rourke (2001)	155 US High-value agricultural product exporters	Quantitative analysis (classification tree technique)	Not specified	Export behavior and sales pattern	<ul style="list-style-type: none"> • Firm characteristics (size, category, experience, commodity, market) 		Obstacle to exporting: <ul style="list-style-type: none"> • Appropriate marketing mix • Safety and health restrictions
Mili and Zuniga (2002)	EU Olive oil exports (bulk and branded)	Qualitative analysis (secondary data)	Not specified	International olive oil trade	<ul style="list-style-type: none"> • Business factors and organization (food consumption trend, changing retail distribution) 	<ul style="list-style-type: none"> • Micro-factors (regulatory, worldwide supply and demand) 	<ul style="list-style-type: none"> • Positioning in high quality oils • Relationship with distribution
Cetin, Akpınar and Ozsayin (2004)	610 Turkish agri-food SMEs	Qualitative analysis (questionnaire and frequency)	Not specified	Critical success factor for marketing to world market	<ul style="list-style-type: none"> • Product characteristics • Market • Export turnover • Mgt. (leadership) • Internet (level of use) 	<ul style="list-style-type: none"> • Competition • Technological complexity 	Descriptive

Table 2.6 (Cont.)
Summary of previous literature on firm's exporting of agricultural products

Authors	Sample	Methodology	Theoretical Basis	Main focus	Factors of interest		Results
					Internal	External	
Ibeh (2005)	7 UK agribusiness SMEs	Qualitative analysis (case-based approach, telephone interview, content analysis)	RBV	International market success	<ul style="list-style-type: none"> • Managerial resources • Physical resources • Organizational resources • Network-based or relational resources 		Factors affected success: <ul style="list-style-type: none"> • Mgt. int'l. orientation • Experiential knowledge • Physical resources and know-how • Product competencies • Relationship wt. partners
Epperson (2006)	66 U.S. agri-business exporters (poultry; fruits, vegetables and nuts; timber; bulk commodity)	Quantitative analysis (frequency, simple stats and regression)	Economic rationale (imperfect competition)	Profile of successful exporters (total export sales)	<ul style="list-style-type: none"> • Total annual sales • Promotion expenditures • Export experiences 		<ul style="list-style-type: none"> • Smaller exporters conduct more promotion expenditure • Market knowledge is needed for competition
Bianchi and Garcia (2007)	12 Chilean food exporters (salmon, wine, fruit)	Qualitative analysis (interviews and secondary data)	Not specified	Main factors for export success	<ul style="list-style-type: none"> • Product quality and value-added • Market research • Country image • Management 		Descriptive
Boughanmi, Al-Mandheri, Al-Ouf & Omezzine (2007)	30 Oman fish processing exporters	Quantitative analysis (regression analysis)	The stage theory of internationalization and RBV	Export performance (export intensity)	<ul style="list-style-type: none"> • Firm age & size • Training & experience • Perceived barriers • Information • Product strategy 		<ul style="list-style-type: none"> • Firm's age and size do not significantly affect performance • All other variables positively significant

Table 2.6 (Cont.)
Summary of previous literature on firm's exporting of agricultural products

Authors	Sample	Methodology	Theoretical Basis	Main focus	Factors of interest		Results
					Internal	External	
Esterhuizen, van Rooyen and D'Haese (2008)	Primary products in agri-business in South Africa	Quantitative and Qualitative (secondary data, index calculation, questionnaire)	Comparative advantage & Porter's competitiveness model	Competitiveness of agribusiness sector in global environment	<ul style="list-style-type: none"> • Factor conditions • Supporting industries • Structure of sector • Firm strategy • Government • Chance 	<ul style="list-style-type: none"> • Demand conditions • Rivalry 	Determinants of competitiveness: <ul style="list-style-type: none"> • High quality product • Intense competition • Innovation
Rock and Ahmed (2008)	133 Chilean exporters (primary and canned products)	Quantitative analysis (regression analysis)	RBV	Export performance (annual rate of export sales growth)	<ul style="list-style-type: none"> • Foreign competitive advantage (5 measures) • Marketing strategies (3 measures) • Capabilities (6 measures) • Cooperation and foreign network (2 measures) • Long-term commitment • Marketing orientation (3 measures) • Firm experience 	<ul style="list-style-type: none"> • Barriers to export (4 measures) 	The factors significantly affecting export performance: <ul style="list-style-type: none"> • R&D • Cooperation • Long-term commitment • Securing of financing • Timely assessment of foreign needs
Roy and Thorat (2008)	184 Grape farmers in India (members of Mahagrapes and independent)	Quantitative analysis (Questionnaire based-interview, t-test and probit)	Not specified	Success of Mahagrapes cooperative for high value horticultural exports	<ul style="list-style-type: none"> • Collective bargaining • Information procurement and processing • Branding value • Quality and safety standard 		Cooperative model in the horticulture sector with scale economies in information procurement

Table 2.6 (Cont.)

Summary of previous literature on firm's exporting of agricultural products

Authors	Sample	Methodology	Theoretical Basis	Main focus	Factors of interest		Results
					Internal	External	
Stanton and Burkink (2008)	108 US fresh fruit and vegetable importers	Quantitative analysis (factor analysis, t-test)	Not specified	Importer perceptions of small fresh producers success	<ul style="list-style-type: none"> • Preferred quality • Attributes and ease of transaction 	<ul style="list-style-type: none"> • External markets and government factors 	Importers not concerned about price and quantity.
Matanda and Freeman (2009)	262 Zimbabwean horticultural exporters	Quantitative analysis (SEM)	RBV	Export performance improvement (subjective measures on return on assets, profit margins and growth in operating profits in current year compared to the previous 2 years)	<ul style="list-style-type: none"> • Commitment • Cooperation • Power 	<ul style="list-style-type: none"> • Environmental volatility • Market turbulence • Competitive intensity 	<ul style="list-style-type: none"> • Environmental volatility, cooperation, and commitment do not significantly affect export performance improvement

2.2.4 Limitations on Studies of Export Performance of Agricultural Firms

The first limitation is that research on the export performance of the agricultural sector is very lacking despite the importance of this sector to the world economy (Crick and Chaudhry, 2000). The agricultural sector is regarded as the economic driving force in developing countries. WTO statistics show that agriculture accounts for over one-third of export earnings for almost 50 developing countries, and for about 40 of them this sector accounts for over half of export earnings (World Bank, 2009). In addition, international organizations have suggested an equal potential for the development of the agricultural sector, as against the conventional emphasis on industrialization through the manufacturing sector because of its ability to create forward and backward linkages (World Bank, 2008).

Second, firms from developing countries traditionally have comparative cost advantages in factors of production, especially for commodity and other agricultural products. Therefore, many studies of agricultural exporting are related to macro-level rather than firm-level behavior. This is probably because the previous studies were based on the discipline of agricultural economics and focused on national comparative advantage and factor efficiency more than firm-level behavior (Crick and Chaudhry, 2000; Esterhuizen, van Rooyen and D'Haese, 2008; Mili and Zuniga, 2002; Yeung, Hobbs and Kerr, 2007).

Third, the previous literature concerning the export performance of the agricultural sector is exploratory in nature. Most studies were conducted through qualitative analysis using in-depth interviews, case-based analysis, secondary data, descriptive analysis, and simple statistical methodology (e.g., Aksoy and Kaynak, 1994; Bianchi and Garcia, 2007; Ibeh, 2005; Mili and Zuniga, 2002; Murray, 1997; Selassie, Hill and Tzarev, 2002; Tesfom, 2008; Toften and Hammervoll, 2009). As a result, empirical research providing evidence on variable relationships is very limited.

Finally, there exist critical limitations stemming from the theoretical background of many previous studies. Many of the studies of agricultural exporting have not demonstrated any theoretical basis (e.g., Bianchi and Garcia, 2007; Crick and Chaudhry, 2000; Mauget and Declerck, 1996; Roy and Thorat, 2008). However, more recently, international marketing and export performance researchers have been encouraged to be theoretically driven (Lages and Montgomery, 2004; Styles, Patterson and Ahmed, 2008). Among the few theory-based exporting studies, two broad theoretical approaches have been identified, one based on Industrial Organization Theory (IO), and one on the Resource-Based View (RBV). Some studies of agricultural export performance have also adopted the RBV (Ibeh, 2005; Matanda and Freeman, 2009; Rock and Ahmed, 2008). In fact, these two theories can be integrated to establish the interplay between firm's resource and external factors and export marketing strategy in determining performance outcome (Calatone, Kim, Schmidt and Cavusgil, 2006; Morgan et al., 2004). However, there is no prior study on agricultural export performance that enables these two viewpoints to be synthesized into a more robust theoretical model.

To sum up, despite the importance of agricultural exports in the world economy, there is limited research into the determinants of export performance in this sector. Next, the theoretical background of the study is described in detail.

2.3 Theoretical Background of the Study

2.3.1 Industrial Organization Theory

The initial export performance literature adopted an economic perspective using Industrial Organization (IO) theory or Structure-Conduct-Performance framework (SCP). Such a framework suggests that competitive advantage and superior export performance are derived from a firm's ability to respond successfully to the interplay of internal and external forces to meet the firm's objectives, by developing and implementing an appropriate marketing strategy (Aaby and Slater,

1989; Cavusgil and Zou, 1994; Robertson and Chetty, 2000; Yeoh and Jeong, 1995; Zou and Stan, 1998).

The major application of IO theory to exporting is Cavusgil and Zou's (1994) framework explaining that export performance is determined by the co-alignment between export marketing strategy and the internal and external environments of the firm. In their model, export performance was determined mainly by export marketing strategy and some internal organizational factors such as managerial commitment and the firm's international competence. The external factors (industry and export market characteristics) and other internal factors (firm and product characteristics) had only indirect effects on export performance through their influences on export marketing strategy.

In conclusion, IO theory emphasized market and industry environmental factors, with external factors largely determining the firm's marketing strategy, which in turn determined export performance (Zou and Stan, 1998). The logic was that the external environment imposed pressures to which a firm must adapt in order to survive and prosper. Thus, the IO framework focused on the impact of a firm's strategy and external environment on its competitive position.

Previous research has identified several internal and external factors determining export performance including: management commitment (Lages and Montgomery, 2004; Maurel, 2009), management characteristics (Doole, Grimes and Demack, 2006), firm experience (Karelakis, Mattas and Chrysochoidis, 2008), firm competencies (Piercy, Kaleka and Katsikeas, 1998), firm size (Haahti, Yavas and Babakus, 2005; Lee and Griffith, 2004), industry characteristics (Cavusgil and Zou, 1994), export market characteristics (Altintas, Tokol and Harcar, 2007; Cadogan, Cui and Lee, 2003; Morgan, Kaleka and Katsikeas, 2004), and domestic market characteristics (Robertson and Chetty, 2000).

In terms of export marketing strategy, several studies have investigated the impact of various marketing strategies on export performance including: product

(Dolle, Grimes and Demack, 2006), pricing (Gomez and Valenzuela, 2005), distribution (Lee and Griffith, 2004), promotion (Leonidou et al., 2002), and general marketing mix strategy (O'Cass and Julian, 2003). In fact, this theory is rooted in contingency theory (Robertson and Chetty, 2000; Yeoh and Jeong, 1995).

2.3.2 Resource-Based View

There has also been export performance research relying on a resource-based view (RBV), arguing that firms gain competitive advantage by leveraging internal resources and capabilities (Piercy, Kaleka and Katsikeas, 1998; Morgan, Vorhies and Schlegelmilch, 2006).

According to the RBV, resources are key determinants of competitive advantage and performance (Barney, 1991; Wenerfelt, 1984). The RBV focuses on the idiosyncratic characteristics of firms that contribute to competitive advantage and value creation. Four criteria were proposed by Barney (1991) to assess the performance implications of resources including: value, rareness, inimitability, and non-substitutability, which contributed to competitive advantage.

Although the RBV was developed in a domestic market context, it had been posited that the framework also applies in export markets (Zou, Fang and Zhao, 2003). The RBV paradigm posits that a firm's export performance is based on a unique bundle of resources including all firm assets, capabilities, organizational processes, attributes, information, experience, knowledge, and technology (Morgan et al., 2004; Zou et al., 2003).

To summarize, the RBV argues that the bundle of a firm's resources is the principal source of the firm's competitive advantage. Previous studies examined the contribution of various resources and capabilities to the achievement of competitive advantage in export markets. These included: experience (O'Cass and Julian, 2003), learning (Johnson, Yin and Tsai, 2009), financial and physical resources (Okpara,

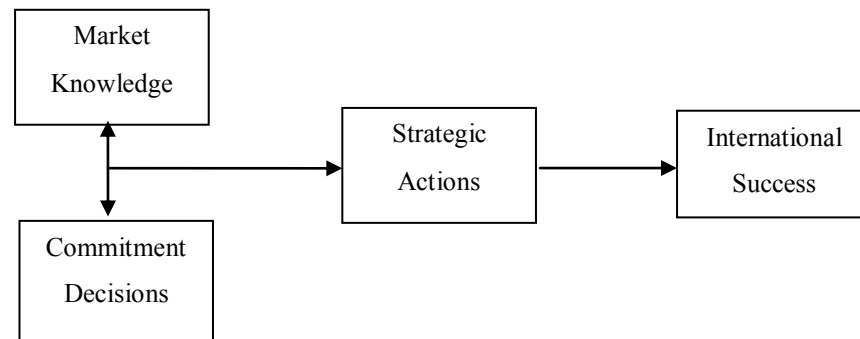
2009), information (Ural, 2009), relationship building (Legas, Silva and Styles, 2009; Ural, 2009), marketing capability (Blesa and Ripolles, 2008), market orientation (Rose and Shoham, 2002), pricing (Sefnedi, Mohamad and Ibrahim, 2007), distribution (Blesa and Ripolles, 2008), communication (Tooksoon and Mohamad, 2008), and product development capabilities (Zou, Fang and Zhao, 2003).

2.3.3 Internationalization Process Theory

Johanson and Weidersheim-Paul (1975) and Johanson and Vahlne (1977) developed a theory about the continuous process that takes place in firms that enter foreign markets. The two key terms in their theory are “knowledge” and “commitment”. Knowledge obtained in and about foreign markets, driving the decision to commit more resources to those markets. These decisions are implemented, and the increased commitment enables the company to continue gathering improved knowledge that drives the commitment. After these two logical steps that feed back into each other, companies increase their international operations consistently. In addition, Bilkey and Tesar (1977) proposed that the shift from a less to a more advanced stage is driven by market knowledge and commitment, leading to competitive advantage in the market.

International activities require both general knowledge and market-specific knowledge. Market-specific knowledge is assumed to be gained mainly through experience in the market, whereas knowledge of the operations could be transferred from one country to another. A direct relation between market knowledge and market commitment was postulated (Anderson, 1993). Consequently, the better the knowledge about a market, the more valuable were the resources and the stronger the commitment to the market. The mechanism is shown in Figure 2.2

Figure 2.2
Internationalization Process Theory



Source: Adapted from Yip, Biscarri and Monti (2000).

2.3.4 Customer Perspective on Agricultural Marketing

Regarding international agricultural marketing, the comparative advantage from being resource abundant may not be sufficient in a globalized context since competition is increasingly based on differentiated products and services (Bianchi and Garcia, 2007). To compete in the international market, the agricultural sector had to develop some specific competencies as well as strategies that could respond to the more demanding in the foreign market (Aksoy and Kaynak, 1994).

In terms of international competition, innovation to develop products with added-value, targeting specific and differentiated market segments, understanding customer demand, and improving productivity as well as quality, have become increasingly important for agricultural businesses seeking to maintain their competitive advantage (Hawkins, 2009; Jongwanich, 2009; Offiongodon, 1985; Ritossa and Bulgacov, 2009; Ubilava, 2006).

Singh (1996: page 102) suggested that the “factors that are likely to play a very crucial role in international marketing for agribusiness firms are

biotechnology and informational technology”. His argument was supported by several researchers (Epperson, 2006; Hampton, Fromm and Nyhodo, 2007; Oyewumi, 2006). Iizuka (2004) studied the export performance of the salmon industry in Chile and also contended that the technology involved in this sector is no longer simple but complex, involving biotechnology as well as informatics.

Mizzi (1993) suggested that, despite their cost-effectiveness, commodity-oriented agricultural firms were undergoing change inspired by a more demanding and differentiated food consumer. As a result, agricultural firms should emphasize the discovery of consumer preferences and the adaptation of product attributes in response to consumer demand rather than relying solely on price considerations. This was supported by various researchers (Higgins and Mordhorst, 2008; Hingley and Lindgreen, 2002; Jiang, 2009; Li and Eadington, 1999)

To summarize, agricultural marketing had changed perspective on international competitiveness from the traditional concept that firms from developing countries had comparative cost advantages in terms of resource abundance and low cost labor, especially for commodity and other agricultural products (Akskoy and Kaynak, 1994). Since marketing strategies revolve around the customer, firms need to emphasize customer orientation to attain their marketing objectives. The changing environment should eventually force firms to be more customer-oriented (Okoroafo and Russow, 1993). Competition in the contemporary global environment is increasingly based on differentiated products and services, thus the agricultural sector has to develop specific competencies that can meet the increasingly demanding international market (Bianchi and Garcia, 2007; Esterhuizen, van Rooyen and D’Haese, 2008). A comparison of the traditional and modern perspectives is shown in Table 2.7

Table 2.7
Consumer Perspective on Agricultural Marketing

	Traditional perspective	Consumer Perspective	Sources
Orientation	Product/Farmer-oriented	Consumer-oriented	Mizzi (1993)
Competitiveness	Comparative cost advantage (National level)	Competitive advantage (Sector/Industry/ Firm/ level)	Aksoy and Kaynak (1994)
Strategic Marketing	Low cost strategy Complete isolation of marketing from production	Differentiation/ focus strategy Production is guided by marketing strategy	Bianchi and Garcia (2007); Esterhuizen et al. (2008)
Product	Standardization	Degree of adaptation	Bianchi and Garcia (2007)
Postharvest Management	Lack of both knowledge and application	Utilization of biotechnology and information technology	Singh (1996); Iizuka (2004)

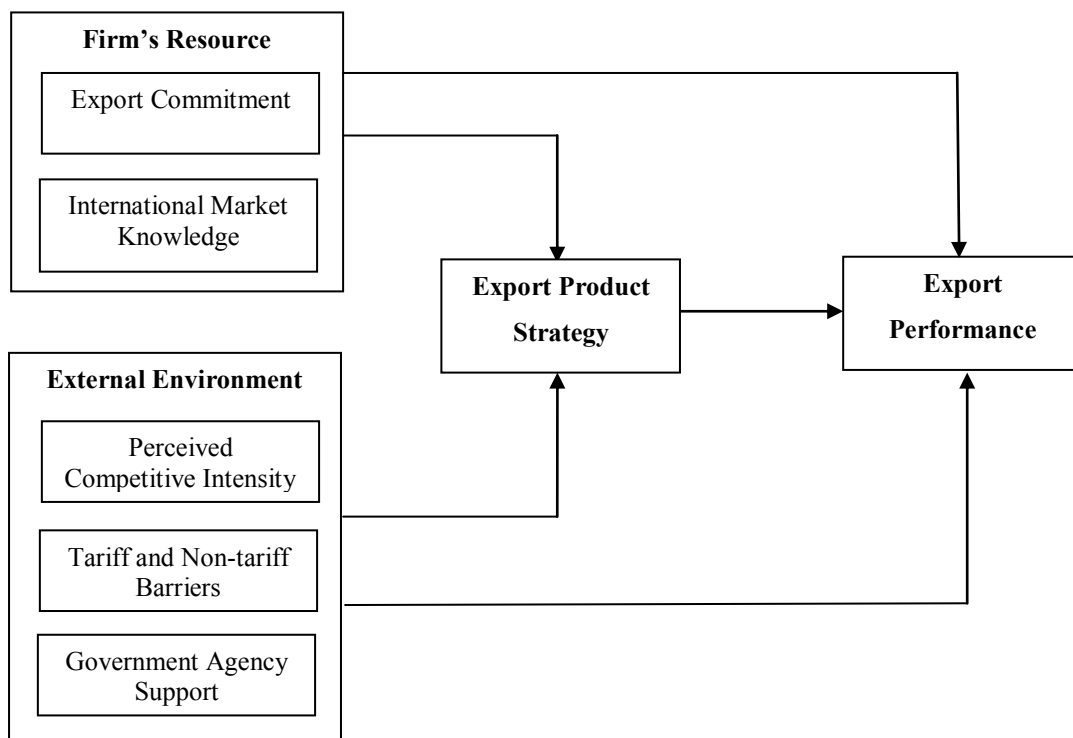
2.4 Conceptual Framework

The conceptual framework for the determinants of export performance of agricultural exporting firms in Thailand is developed based on an integration of Industrial Organization (IO) theory, the resource-based view (RBV), internationalization process theory, and the consumer perspective on agricultural marketing. Export performance is commonly determined by internal and external factors (Cavusgil and Zou, 1994; Sousa et al., 2008), where the former are firms' resources and export product strategies, and the latter are external environmental factors.

The framework consists of four groups of these constructs including: firm's resources, external environment, export product strategy, and export performance (Figure 2.3). It is argued that firms respond to changes in their internal

and external environment by formulating deliberate export marketing strategies in order to minimize the adverse impact of environmental changes or to maximize the benefits from such changes on their overall performance (Calantone, Kim, Schmidt and Cavusgil, 2006; Chadee, 2002). Firms' resources and external environment directly affect a firm's export performance, and also do so indirectly through its export product strategy. In this study, export product strategy is referred to as a mediating variable. The firms' resources considered are export commitment and international market knowledge. The external environment includes perceived competitive intensity, legislation barrier, and government agency support. Conceptualization and a literature review for all constructs are presented below.

Figure 2.3
A Conceptual Framework



2.4.1 Firm' s Resource

Recently, export researchers have recognized the RBV, which was derived from an internal analysis of the firm and the distinctive hard-to-duplicate resources the firm had developed (Barney, 1991; Wenerfelt, 1984). In line with the RBV, recent studies have examined the contribution of various capabilities and resources to the achievement of competitive advantage in export markets, including: experiential scale, financial, physical and informational resources, relationship building, pricing, distribution, communication, and product development capabilities (Balabanis et al., 2004; Lages, Silva and Styles, 2009, Morgan et al., 2004; Zou et al., 2003).

Most agricultural exporting firms are relatively small or medium-sized, compared with the manufacturing sector. Although agricultural firms may lack the resources and capabilities to deal properly with potential problems in the export market, application of the RBV to the export performance of agricultural products is still possible (i.e. Boughanmi et al., 2007; Ibeh, 2005; Matanda and Freeman, 2009).

In this study, export commitment and international market knowledge are identified as the resources of the agricultural exporting firms.

2.4.1.1 Export Commitment

Export commitment is defined as the level of financial and non-financial resources devoted to export-related activities (Cavusgil and Nevin, 1981: page 115). Researchers have indicated that export commitment is critical to the study of export behavior (Cavusgil and Zou, 1994; Madsen, 1994).

Research has suggested that export performance is positively influenced by the commitment of management towards the export activity (Aaby and Slater, 1989; Cavusgil and Zou, 1994). Crick, Chaudhry and Batstone (2000) confirmed that export commitment positively contributed to the export performance

of UK agricultural-related products SMEs. In a study of agro-based manufacturing exports, Maurel (2009) examined the export performance of 158 French wine exporting SMEs. He defined export commitment as the general willingness to allocate the required resources to export development, including participating in public export promotion programs and trade activities to be competent about the export market.

In addition, when managers were committed to exporting, they carefully planned marketing strategies and allocated sufficient managerial and financial resources. Thus marketing strategy could be implemented effectively (Chadee, 2002). Crick et al. (2000) and Kantipipat (2009) agreed that export commitment contributed to the success of the export marketing strategy of agricultural-related firms.

2.4.2.2 International Market Knowledge

International market knowledge is the firm's knowledge about foreign markets (Morgan, Zou, Vorhies and Katsikeas, 2003). Knowledge is increasingly regarded as a critical resource of firms and economies as reflected by Nonaka (2007: page 162), who noted that "*in an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge*". Since the concept of knowledge meets the resource-based view of being rare and inimitable, many scholars have focused on the importance of knowledge for sustaining firms' competitiveness (Grant, 1996; Hall, 1993; Lam, 2000).

Previous studies identified market knowledge as one of the most valuable assets in an organization (Glazer, 1991; Li and Cavusgil, 2000; Sinkula, 1994; Tsai and Shih, 2004). From an international marketing perspective, acquiring knowledge about foreign markets is particularly relevant in the context of internationalization process theory (Johanson and Vahlne, 1977). According to Johanson and Vahlne (1977), when a firm is considering jumping into international markets, it first must gather knowledge about foreign markets and operations and then

must make a commitment of resources. The findings of Sullivan and Bauerschmidt (1989) supported this theory.

International market knowledge can be described as either experience-based or information-based knowledge (Morgan et al., 2003; Toften and Olsen, 2003). Information-based knowledge can be expressed in words and numbers and can easily be communicated and shared with others. Experience-based knowledge, on the other hand, is deeply rooted in individuals' actions and experience. Morgan et al. (2003) indicated that these two types of knowledge are interrelated.

Souchon and Diamantopoulos (1996), and Wang and Olsen (2002) supported the idea that the more knowledge the exporter possessed, the higher profitability related to the firm's competitive advantage. Several empirical studies have mentioned that marketing research, one source of information-based knowledge, is an important element in a firm's foreign success (Hart and Tzokas, 1999; Ling-yee, 2004; Yeoh, 2000).

Empirical research into the impact of market knowledge on exporting by agricultural-related firms is scarce and inconclusive (Chadee, 2002). A few studies report a positive relationship between international market knowledge and export performance (Rock and Ahmed, 2008), while others identify a non-significant result (Chadee, 2002). Chadee (2002) studied food and beverage firms in New Zealand and found that market knowledge measured by the experiential knowledge (familiarity) about the targeted market, did not affect export performance directly but indirectly through distribution and promotion strategies which, in turn, had positive influences on the firm's performance.

Crick et al. (2000) investigated the behavior of UK SMEs that exported agricultural-related products. They suggested that export experience was a potential influence since a firm's knowledge obtained from a number of years engaged in export activities may affect its ability to compete overseas due to a learning curve. Kantipipat (2009) suggested that experiential knowledge is a critical

determinant of export success. His empirical study of 324 Thai processed agricultural firms found experiential knowledge measured by years of a firm's operation was positively related to successful export marketing strategy.

The major factor making the result of many studies into the impact of market knowledge on exporting by agricultural-related firms inconclusive was the conceptual measurement of international market knowledge. Some studies identify export experience as being a firm's knowledge obtained from a number of years engaged in export activities (Crick et al., 2000; Gripsrud, 1990). The association between export performance and export experience was also unclear (Raymond, Kim and Shao, 2001).

Leonidou and Katsikeas (1996) identified two types of knowledge; experience-based knowledge and information based-knowledge, where the latter is acquired from marketing research, export assistance, and market intelligence. Studies of the export performance of agricultural-related products most often identified marketing research as the source of international market knowledge (Aksoy and Kaynak, 1994; Ates and Sen, 1998; Bianchi and Garcia, 2007), but the results are inconsistent. Given the paucity and inconsistency of results, development of international market knowledge measurement should be carried out to overcome these limitations.

The conclusion that can be drawn from the previous literature is that international market knowledge, including both experience-based and information-based knowledge, is regarded as a firm's valuable resource and is critical to the competitiveness and export performance of agricultural exporters.

2.4.2 External Environmental Factor

External environment refers to those factors over which firms have no control. They included macroeconomic, political, cultural, legal, social, financial, and physical elements in both home and host countries in which firms operate (Cavusgil

and Zou, 1994). Consideration of the impact of external factors on export performance has become important with increased uncertainty and complexity in the external environment (Yeoh, 2000).

Yeoh (2000) distinguished between perceived environmental uncertainty and environmental complexity. Environmental uncertainty involves factors that affect a firm's ability to be competitive in its marketplace, such as uncertainties in product market and demand, competition, and technology in the industry. Environmental complexity includes aspects of the macro-environment or remote marketplace that could severely hinder export opportunities, such as tariff/nontariff barriers, exchange rate fluctuations, and differences in legal, political, and economic environments.

O'Cass and Julian (2003) examined firm and environmental influences on the export performance of Australian exporters from multiple industries including agricultural products. The results confirmed the findings of Cavusgil and Zou (1994) that environmental characteristics including competitive intensity and legal and regulatory policies of host country government affected the export performance of firms. In addition, encouraging exports is the most important policy by which the Thai government aims to reduce the trade deficit and to recover from the economic crisis (Cuyvers, 2004). Therefore, the Thai government supports and promotes major agricultural exports such as organic shrimp and horticulture products to strengthen the sustainable competitiveness of the agricultural sector (Department of Export Promotion of Thailand, 2009).

In this study, perceived competitive intensity, tariff and non-tariff barriers, and government agency support are identified as the environmental factors affecting the export performance of agricultural firms.

2.4.2.1 Perceived Competitive Intensity

Perceived Competitive intensity is defined as uncertainty in the external environment from the extent of foreign competitors in the export market (Ramaseshan and Souter, 1996: page 56). Several studies have confirmed that high competitive intensity in export markets results in increased price competition which can reduce profitability (Cadogan, Cui and Li, 2003; Slater and Narver, 1994). Morgan, Kaleka and Katsikeas (2004) studied the antecedents of export venture performance of manufacturing sectors in the US. They concluded that competitive intensity in the export market affected export venture performance since it affected the likelihood of price competition, the cost of achieving positional advantages, and customer choices. Thus, competitive intensity also directly and negatively affected export venture performance.

Ramaseshan and Soutar (1996) studied barriers to horticultural firms' export decisions, and concluded that foreign competition was negatively associated with exporting. In agricultural exporting, most of the exporters competed with similar products based on natural resources. As a result, competitive pressure in the host countries affect the export performance of agricultural firms.

2.4.2.2 Tariff and Non-Tariff Barriers

Tariff and Non-tariff barriers are defined as complexity in the external environment including policy, institutions, and regulations of target market country governments (Mavrogiannis, Bourlakis, Dawson and Ness, 2008: page 642).

Fliess and Kim (2008) studied the incidence of non-tariff measures that are perceived as barriers to international trade. There were various problems associated with certification requirements, custom procedures, regulations on payment, intellectual property protection, government procurement procedures, and technical regulations and standards. Morgan and Katsikeas (1997) found similar

results where a product's international standard requirements were an obstacle to export expansion strategy.

Gripsrud (1990) described a list of ten external factors that were barriers for Norwegian fisheries to export to Japan. Tariff and non-tariff barriers were also regarded as external determinants of export behavior. His result confirmed Sullivan and Bauerschmidt's (1989) as to the negative effect of enforcement of national legal codes regulating exports as a common factor underlying barriers to export for the European and U.S. paper industries.

In conclusion, there is evidence that trade barriers including discriminatory legal requirements can pose threats to foreign exporters, and negatively affect the export performance of agricultural firms.

2.4.2.3 Government Agency Support

Although trade promotion and assistance from the Thai government has increased in the export sector (Polsaram, 1998), previous research that examined the impact of government agency support on the export performance of agricultural exporting firms is scarce. Stanton and Burkink (2008) studied the improvement of small farmers' participation in export marketing channels using Mexican fresh fruit and vegetable exporters to the U.S. as an example, and noted the agricultural support programs in the developing countries.

Moreover, Seringhaus and Rosson (1990) explained the government's initiatives and implementation activities to promote exports. Information sharing on the procedures in export markets as well as help for exporters to advertise and exhibit their products in the international marketplace was required to improve exporters' performance. Thus, government agency support helped to improve the exporters' competitiveness and performance at both industry and firm levels.

2.4.3 Export Product Strategy

A significant number of studies have focused on factors relating to export marketing strategy. Madsen (1994) concluded that the group of export marketing strategy variables was the most important explanatory group of variables in relation to overall export performance. This was supported by Cavusgil and Zou (1994), Zou and Stan (1998), Lee and Griffith (2004), Toften and Hammervoll (2009). They all provided empirical support for the importance of marketing strategy variables and identified strong links between the strategy of a firm and its performance in foreign markets.

However, Chao, Samiee and Yip (2004) argued that in less developed countries, product and pricing strategy were the dominant export marketing mix strategies. Julian (2004) found that support to the distribution channel and promotion adaptation strategy had no effect on export performance of Thai export manufacturing firms. This was supported by Cuyvers (2004) who recommended that Thai exporters adjust their marketing strategies based on product characteristics so that they could compete in the world market.

Zou, Andrus and Norvell (1997) found that product and price were two major export strategies determining the performance of Columbian exporters. Cuyvers (2004) provided support by confirming that most Thai exporters were SMEs and implied that distribution and promotion strategies were not relevant to exporting firms from less developed countries at least until they were able to establish relationships with export networks.

Product strategy including product quality, new product development, and product adaptation are relevant to developing a competitive edge (Okoroafo and Russow, 1993). More specifically, Madsen (1994) pointed out the particular importance of product design, quality and uniqueness as the key aspects of export strategy. Export product strategy has been highlighted in several studies undertaken

among international agricultural-related firms (i.e. Aksoy and Kaynak, 1994; Mauget and Declerck, 1996; Murray, 1997; Rock and Ahmed, 2008).

In this study, product quality and safety as well as product adaptation are emphasized as the export product strategy affecting the export performance of agricultural firms. Product quality refers to the development of products with better appearance and flavor including taste, aroma, color, age, shape, moisture, nutritional value, and chemical composition (Bianchi and Garcia, 2007).

Product quality had long been recognized as one of the most important factors for export success (Kaynak, Ghauri and Olofsson-Bredenlow, 1987). There have been several studies that confirmed a positive relationship between product quality and export performance (Lages, Silva and Styles, 2009; Leonidou, Katsikeas and Samiee, 2002; Maurel, 2009). Product quality was positively associated with performance since it lowered buyer risk by conveying seller credibility and reliability (Leonidou et al., 2002).

The uniqueness of the natural factors influencing the agricultural sector creates some important problems related to product quality and safety (Roy and Thorat, 2008; Torok and Schroeder, 1992), for example, toxins in shrimp exports and Avian Influenza in poultry industries. The agricultural sector has to undertake quality assurance so that products meet regulatory safety standards related to the amount of pesticides, the degree of purity, and the level of additives (Hooker and Caswell, 1996).

Bianchi and Garcia (2007) studied the export marketing strategies of developing countries based on Chilean agricultural firms, and suggested that product quality represented the key to success in foreign markets. Chilean fruit exporters had worked strongly to develop products with better appearance and flavor, and longer shelf life.

Lages, Silva and styles (2009) studied relationship capabilities, product quality, and innovation as determinants of the export performance of Portuguese export ventures. They suggested that product quality was strongly related to export success. The result was consistent with Maurel (2009) who studied the determinants of export performance of French wine exporting SMEs. He found high quality product in foreign markets helped improve the export performance of wine exporting SMEs.

Moreover, Mergenthaler, Weinberger and Qaim (2009) studied the quality assurance programs and access to international markets of horticultural processors in Vietnam. They noted that the trend towards food safety had led to a growing demand for more stringent food safety regulations at the international level. They concluded that quality assurance programs helped fruit and vegetable processing firms to improve access for exporting. The results was similar to Roy and Throat (2008) who found one of the reasons for the success of agricultural cooperatives was stringent standards for size, shape, and color of fruits as well as standards for permissible levels of pesticides and other chemicals.

In addition, product adaptation refers to the degree to which a firm's product elements are adapted for export markets to accommodate differences in environmental forces, consumer behavior, usage patterns, and competitive situations (Leonidou, Katsikeas and Samiee, 2002).

The subject of adaptation/standardization has been discussed for several decades (Jain, 1989; Ryans Jr., Griffith and White, 2003; Shoham, 1996). Proponents of standardization of export marketing strategy have argued that a firm can gain cost efficiencies through economies of scale and attract common cross-national market segments (Buzzel, 1968; Levitt, 1983).

Proponents of adaptation have noted the variations in international markets in terms of cultural and socioeconomic conditions, marketing infrastructure, political and legal systems, and customer values and lifestyles (Zou and Cavusgil,

1996; Zou, Andrus and Norvell, 1997). Studies on the relationship between standardization and adaptation and firm performance had shown mixed results (Leonidou et al., 2002).

However, among the agricultural exporting studies, studies on the relationship between product adaptation strategy and export performance are not available. O’Cass and Julian (2003) argued that exporters of products that were more generic in nature, such as agriculture, mining, and chemical industries could have achieved positive results using product standardization strategies.

Most agricultural exporting firms are relatively small or medium-sized and normally lacked capital and marketing infrastructure. Thus it is difficult for them to market their products directly to consumers. They tend to export indirectly through export agencies and other middlemen (Mili and Zuniga, 2002; Timmor and Zif, 2005). The middlemen may ask for changes in the product features and the packaging to compete better in their local markets or as a part of their private label development.

Morgan and Katsikeas (1997) supported the adaptation of product design, style, packaging, and labeling. For example, many exported food products are packaged to include caloric and nutritional information that is not required when sold in the domestic market (Tantong, Karande, Nair and Singhapakdi, 2010). Thus, modifications to product features, product branding, product packaging, and product labeling may be more critical for firms from the agricultural sector due to sophisticated consumers in competitive markets.

Kantapipat (2009) conducted an exploratory study of Thai processed agricultural products, and concluded that agricultural exporting firms should make efforts to adapt their products to meet the needs of the foreign market to achieve success in marketing performance. However, he studied processed food which is characterized as a manufacturing product rather than a natural agricultural-based product.

From the previous literature, even though there is a lack of empirical evidence for the effect of product adaptation strategy on the export performance of agricultural products, this strategy should be an option for agricultural exporting firms in order to create competitive advantage and achieve superior performance.

2.4.4 Export Performance

Export performance is a multi-dimensional construct as described in the previous section. Export performance measures can be classified into objective and subjective measures. Objective measures are mainly based on the absolute values, while subjective measures are based on perceptual or attitudinal performance. Since it is difficult to clearly segregate export results from corporate results, it has been deemed advisable to use subjective measures (Leonidou et al., 2002). In addition, managers may be unwilling to provide confidential profitability or other information, or be unable to provide objective data (Sousa, 2004). Thus, there are several reasons subjective measures may be suitable: 1) the difficulty of obtaining financial export performance data, 2) managers' unwillingness to provide such information, and 3) the lack of specific export information in financial reports.

Subjective data had been shown to be highly correlated with objective data by Dess and Robinson (1984). They explained that the respondents may in fact provide perceptual (subjective) and relative information even if asked about an absolute figure. This is because the managerial action tended to be driven by perceptions or satisfactions, not by numbers or financial data.

Previous studies on the exporting of agricultural products measured export performance in different ways. Some studies used objective measures (Boughanmi et al., 2007; Rock and Ahmed, 2008), while some used subjective measure (Matanda and Freeman, 2009). Some studies of agro-based manufacturing exports used a composite scale of both objective and subjective measures (Mavrogiannis et al., 2008; Tooksoon and Mohamad, 2008).

In addition, Fiegenbaum, Hart and Schendel (1996) suggested that managers use three subdivisions of reference points: temporal (past, present, and future), internal (sales and profit goals) and external (competitors and customers) that might lead to satisfaction with export performance or to dissatisfaction.

In summary, this study measures export performance by using both objective and subjective measures (self-evaluation by respondents). Objective performance is measured by sales growth rate during the past five years as an approximate percentage. Subjective performance is measured using market-based measures, rather than pre-set goal achievement measures because it is difficult to compare between firms of different sizes, operating in different markets, and differing in accounting practices, as suggested by Carneiro, da Rocha and da Silva (2007) and Fahy et al. (2000).

2.5 Summary

This chapter reviews the literature pertinent to this study. The chapter begins with an overview of world agricultural export market the contribution of agricultural exports, and Thailand's agricultural export situation. The literature review includes export performance measures and determinants, a summary of previous studies of exporting agricultural products and the limitations of those studies. In addition, the theoretical background to the study is identified. It comprises Industrial Organization Theory, the Resource-Based View, Internationalization Process Theory, and the consumer perspective on agricultural marketing. Finally, the conceptual framework is presented with detailed conceptualization along with a review of the literature related to the variables indicated in the framework of the study

Chapter III

The Proposed Model and Research Hypotheses

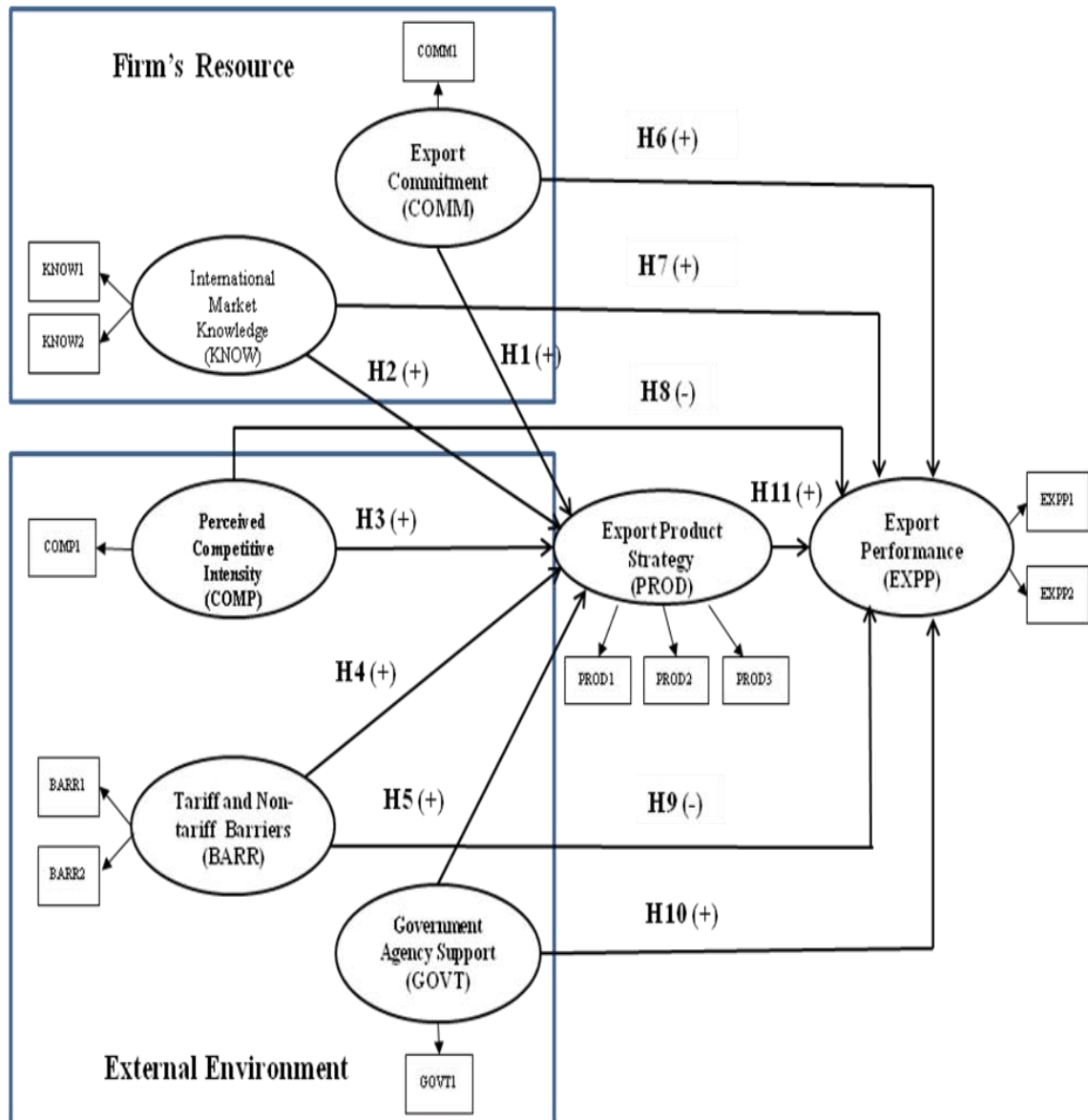
The objective of this chapter is to present the proposed model, and the eleven hypotheses developed in this study.

3.1 An Overview of the Proposed Model

The proposed model is developed based on an integration of Industrial Organization Theory (Cavusgil and Zou, 1994), Resource-Based View (Barney, 1991), Internationalization Process Theory (Johanson and Vahlne, 1977) and agricultural marketing perspective into a comprehensive model of the determinants of export performance for agricultural firms in Thailand. A comprehensive model based on these theories can generate some advantages as it enables the different viewpoints to be synthesized into a more robust comprehensive model (Calatone, Kim, Schmidt and Cavusgil, 2006; Morgan, Kaleka and Katsikeas, 2004).

The model posits that a firm's resource and external environment factors influence export performance both directly and indirectly through export product strategy, as depicted in Figure 3.1. The resources of a firm which are expected to directly affect export performance are export commitment and international market knowledge. For the external environment, perceived competitive intensity and tariff and non-tariff barriers have direct negative effects on a firm's export performance, but positive influences on a firm's export product strategy. Finally, export product strategy is viewed as the strategic factor that directly affects export performance and mediates the effects of a firm's resource and external environmental factors upon export performance.

Figure 3.1
The Proposed Model of the Determinants of Export Performance
of Agricultural Exporting Firms in Thailand



3.2 Hypotheses Development

3.2.1 Export commitment and export product strategy

O’Cass and Julian (2003) examined the export performance of Australian exporters in multiple industries including agriculture. They argued that firms with greater resource commitment were more adaptive in their strategic approach to exporting, which leads to better performance.

Crick, Chaudhry and Batstone (2000) revealed that export commitment affected export competitiveness and played a major role in firms adopting a market concentration versus a spreading strategy. Kantipipat (2009) found a positive relationship between a firm’s level of commitment and export marketing strategy in his empirical study of the success of export marketing strategy among Thai processed agricultural product firms. Thus, it is hypothesized that:

H1: Export commitment has a positive influence on export product strategy.

3.2.2 International market knowledge and export product strategy

O’Cass and Julian (2003) agreed with Cavusgil and Zou (1994) that international experience led to firms being more likely to select the most attractive market and adapt their marketing strategy to accommodate the specific needs of the market. This is similar to Chadee (2002) who found that market knowledge, measured by experiential knowledge about the targeted market, did not affect export performance directly but rather indirectly through distribution and promotion strategy which, in turn, had positive influences on the firm’s performance.

In addition, Kantipipat (2009) suggested that experiential knowledge is a critical determinant of export success. His empirical study on Thai processed agricultural firms found experiential knowledge measured by years of a firm’s

operation positively related to successful export product and pricing strategy. Thus, it is hypothesized that:

H2: International market knowledge has a positive influence on export product strategy.

3.2.3 Perceived competitive intensity and export product strategy

In a competitive export market, a high degree of product adaptation has been found to be needed due to intense competition pressure, because product strategy can help gain competitive superiority over rivals (Cavusgil and Zou, 1994).

Ramaseshan and Soutar (1996) studied the barriers to horticultural firm's export decisions, and found that most of the exporters competed with similar products based on natural resources. However, there is the possibility for competition based on differentiated products and added value, and that products can be differentiated on the basis of quality, environmental impact, origin, or animal welfare (Humphrey, 2006). Humphrey (2006) provided an example from the coffee sector where firms could penetrate the highly competitive international market by exporting "sustainable coffee", competing on the basis of being certified organic and of the quality and safety of the products, instead of competing on price.

O'Cass and Julian (2003) examined firm and environmental influences on the export performance of multiple trade sectors in Australia including agriculture.. They found that environmental characteristics had a significant influence on export marketing strategy. This was due to the fact that intensity of competition in the export market could force firms to focus more on product strategy, such as pursuing product adaptation to gain a competitive advantage over rivals. Thus, competitive intensity could prompt exporting firms to differentiate their products based on quality and safety or adapt them to the context they are operating in. Therefore, it is hypothesized that:

H3: Perceived competitive intensity has a positive influence on export product strategy.

3.2.4 Tariff and non-tariff barriers and export product strategy

A firm's export marketing strategies were usually formulated to match the firm's strength in terms of foreign market opportunities. Consequently, product strategy had been described as one of the means by which a firm's offerings can be adapted to fit the foreign market (Cavusgil and Zou, 1994; Chadee, 2002).

Leonidou (2004) stated that many foreign governments used special legislation to set a particular standard for certain categories of goods, thus making product adaptation mandatory. Although these requirements may create a problem for small firms, it should be an advantage of them in terms of forcing them to improve product quality and safety standards, thereby creating competitive advantage. An example is where packaging/labeling requirements for special handling, the language used, specific information, or symbols, pictures, and colors appearing on a product label are adapted to meet foreign tastes and preferences. Thus, it is hypothesized that:

H4: Tariff and non-tariff barriers have a positive influence on export product strategy.

3.2.5 Government agency support and export product strategy

Thai government agencies support and promote major agricultural exports such as organic shrimp and horticulture products to strengthen the sustainable competitiveness of the agricultural sector (Department of Export Promotion, 2009). The Thai government has proposed that if Thai exporters were able to produce good quality products and comply with the standards or demands of foreign markets, it

would enhance the competitiveness of agricultural exporting firms. Consequently, it is hypothesized that:

H5: Government agency support has a positive influence on export product strategy.

3.2.6 Export commitment and export performance

In agro-based manufacturing exporting studies, the relationship between export commitment and export performance has already been confirmed (Chadee, 2002; Maurel, 2009). Chadee (2002) studied New Zealand's food and beverage firms, and found that export commitment significantly contributed to export performance both directly and indirectly through pricing and product strategy. Similarly, Maurel (2009) suggested a positive relationship between export commitment and export performance in his study of the determinants of the export performance of French wine SMEs. For agricultural products, Rock and Ahmed (2008) concluded firms that had a long-term commitment to exporting were more likely to succeed than firms that had no such commitment. Thus, it is hypothesized that:

H6: Export commitment has a positive influence on export performance of agricultural exporting firms.

3.2.7 International market knowledge and export performance

Among the agricultural exporting studies, Ates and Sen (1998) confirmed the results of Aksoy and Kaynak (1994) that lack of information about export markets was the major problem negatively affecting export performance. Bianchi and Garcia (2007) further suggested that marketing research, a source of market knowledge, was the main factor for successful exporters in developing countries.

Boughanmi, Al-Mandheri, Al-Oufi and Omezzine (2007) identified the key variables affecting export performance at the firm level of fish processing exporters and concluded that information about foreign markets were significant variables positively affecting export performance.

Qualitative studies of smaller agri-food companies by Ibeh (2005) and Ibeh, Ibrahim and Panayides (2006) also suggested that experiential knowledge as a managerial resource factor contributed to the success of smaller agribusiness firms. This is supported by Crick, Chaudhry and Batstone (2000) who suggested that export experience was a potential influence on export performance since a firm's knowledge, obtained from a number of years engaged in export activities, may affect its ability to compete overseas.

In addition, Roy and Thorat (2008) concluded that obtaining information about export market requirements was critical to the export success of a horticultural cooperative in India. This is consistent with the study by van-Voorthuizen, Duval and O'Rourke (2001), who stated that government export assistance programs were significant to the success of agricultural product exporters.

On the other hand, Mavrogiannis, Bourlakis, Dawson and Ness (2008) found no association between export experience and performance. This study used length of time since export activities initiated. In addition, they found insignificant relationships between information sources and export performance.

In sum, there have been mixed results regarding the impact of international market knowledge on export performance, depending on operationalization of the constructs used in previous studies. However, some of the studies contended that experience and information influence firms' export performance, thus, it is hypothesized that:

H7: International market knowledge has a positive influence on export performance of agricultural exporting firms.

3.2.8 Perceived competitive intensity and export performance

O’Cass and Julian (2003) posited that export performance tended to be conditioned by environmental characteristics such as the extent of competition as well as the legal and regulatory policies of host country governments in the targeted export market. Cadogan, Cui and Li (2003) confirmed that high competitive rivalry in export markets had a negative effect on sales efficiency. Slater and Narver (1994) suggested that a firm’s perceived competitive intensity resulted in increased price competition which can reduce profitability.

Ates and Sen (1998) found that most agricultural products were homogeneous in nature and this led to price wars among suppliers from the same country or different countries. Ramaseshan and Soutar (1996) studied the barriers to horticultural firms’ export decisions and concluded that foreign competition was negatively associated with exporting. Moreover, Matanda and Freeman (2009) studied the effect of perceived environmental uncertainty on export performance improvement in the horticultural sector and suggested that perceived competitive intensity by exporters had a negative effect on the export performance of the export venture. Thus, it is hypothesized that:

H8: Perceived competitive intensity has a negative influence on export performance of agricultural exporting firms.

3.2.9 Tariff and non-tariff barriers and export performance

Gripsrud (1990) described a list of ten external factors that were obstacles for Norwegian firms exporting to Japan. Tariff and non-tariff barriers were regarded as external determinants of export behavior.

Chadee (2002) studied the food and beverage industry in New Zealand and suggested that changes in foreign market conditions including tariff and non-tariff

barriers could pose threats to foreign exporters. The results showed that these factors contributed negatively and significantly to export performance. In addition, Mavrogiannis, Bourlakis, Dawson and Ness (2008) assessed export performance in the Greek food and beverage industry and confirmed that trade barriers including discriminatory legal requirements negatively affected export performance. Thus, it is hypothesized that:

H9: Tariff and non-tariff barriers have a negative influence on export performance of agricultural exporting firms.

3.2.10 Government agency support and export performance

Seringhaus and Rosson (1990) explained the government's initiatives and activities to promote exports. Information sharing on procedures and expanded export markets as well as helping exporters to advertise and exhibit their products in the international marketplace were required to improve exporters' performance. Thus, government agency support helped to improve exporters competitiveness and performance at both the industry and firm levels. Van-Voorthuizen, Duval and O'Rourke (2001) examined the importance of export assistance programs for US high-value agricultural products and found the USDA and other government agencies provided services to promote trade opportunities for agricultural exports, thus increasing export sales. Therefore, it is hypothesized that:

H10: Government agency support has a positive influence on export performance of agricultural exporting firms.

3.2.11 Export product strategy and export performance

There have been several studies that have confirmed a positive relationship between product quality and safety and export performance (Lages, Silva and Styles, 2009; Leonidou, Katsikeas and Samiee, 2002; Maurel, 2009). Maurel

(2009) confirmed that exporting a high quality product to foreign markets helped improve the export performance of French wine SMEs.

Boselie, Henson and Weatherspoon (2003) studied supermarket procurement practices in developing countries based on five case studies, and found that some suppliers (for instance baby corn exporters) experienced losses of up to 40% due to poor quality. The qualitative study by Roy and Throat (2008) indicated that one of the reasons for success of agricultural cooperatives was the stringent quality norms with which farmers had to comply. These included standards for size, shape, and color of grapes.

Product adaptation has been found to create viable growth opportunities for an export product as it permits correspondence to the specific demands of the target market and enhances firm performance (Julian, 2003; Karelakis, Mattas and Chryssochoidis, 2008; Maurel, 2009). Kantapipat (2009) conducted an exploratory study of Thai processed agricultural product firms and concluded that management should make efforts to adapt their products to meet the needs of the foreign market in order to achieve success in marketing performance. Consequently, it is hypothesized that:

H11: Export Product strategy has a positive influence on export performance of agricultural exporting firms.

3.3 Summary of the Hypotheses

A summary of eleven hypotheses in the study is shown in Table 3.1

Table 3.1
Summary of Hypotheses

Variables		Hypotheses and Predictions
Independent	Dependent	
Export commitment	Export product strategy	H1 (+)
International market knowledge	Export product strategy	H2 (+)
Perceived competitive intensity	Export product strategy	H3 (+)
Tariff and non-tariff barriers	Export product strategy	H4 (+)
Government agency support	Export product strategy	H5 (+)
Export commitment	Export performance	H6 (+)
International market knowledge	Export performance	H7 (+)
Perceived competitive intensity	Export performance	H8 (-)
Tariff and non-tariff barriers	Export performance	H9 (-)
Government agency support	Export performance	H10 (+)
Export product strategy	Export performance	H11 (+)

Chapter IV

Research Methodology

This chapter presents the research methodology used to test the hypotheses in the proposed model. It begins with target population, unit of analysis and sources of information. The following section explains the sample size determination. Next, research instruments are described. Finally, data collection method and data analysis technique are identified, followed by the summary.

4.1 Target Population

The target population is agricultural exporting firms located in Thailand. Within the Ministry of Commerce, agricultural products are categorized by Harmonize System (HS code 100000000, Customs Department) into four major groups: crop and grain, horticulture, fishery product, and livestock and daily products.

Exports of all agricultural products accounted for around 10 percent of total exports. Although structural change has led to an increased focus on manufacturing rather than agriculture, the agricultural sector can still be the basis of national comparative advantage since it provides land-based resources as inputs for related processing industries (Zamroni, 2006). In addition, more than 50% of the Thai population of 63 million people is engaged in the agricultural sector. As a result, Thailand still relies heavily on agricultural sector. Overall, rice, natural rubber, tapioca, fish and meat products, and fruit are the major agricultural exports, accounting for the largest share of export volume, and contributing to national earnings. The details of agricultural products in each category are as follows.

- **Crop and Grain**

Crop and grain products include rice, maize, bean, tapioca, seed, nut, orchid, rubber, coffee, tobacco, oil seed, palm, nut, cereal, cotton, and others.

- **Horticulture**

Horticultural product includes fresh, dried, and frozen fruits and vegetables.

- **Fishery Product**

Fishery product includes shrimp and prawn, fish, crab, jelly fish, frog, crustacean, mollusc, and others fishery products (fresh, chilled, and frozen).

- **Livestock and Daily Product**

Livestock and daily products include poultry, duck, swine, egg, and other edible meat.

4.2 Unit of Analysis

The unit of analysis in this study is the firm level, represented by a manager or higher position who is responsible for, or involved in, exporting practices. Some studies recommend that the unit of analysis in export performance studies should be the export venture or export venture portfolio or product line rather than the entire firm for larger firms (Katsikeas, Leondidou and Morgan, 2000; Morgan, Kaleka and Katsikeas, 2004).

Styles (1998: page 27) however, concludes that “small firms are less able to isolate the performance of a specific export venture from total export performance, or even total firm performance”. For this reason, export performance at the firm level is measured in this study. In addition, the sample consists of exporting firms from agricultural industry across different export markets.

If the firm in the sample has multiple export ventures, the respondent will be asked to focus on the venture that is the most important and about which the respondent is most knowledgeable.

4.3 Sources of information

The population of agricultural exporting firms in Thailand is unknown since none of any organization collects those data. The database is newly developed and there are approximately 1,585 agricultural exporting firms in Thailand (as of May 2011). The sources of information are from official websites, published directories and electronic databases from trade associations, institutions, and government agencies relevant to the targeted industries. The information sources are listed below.

1. Department of Export Promotion, Ministry of Commerce
2. Department of Foreign Trade, Ministry of Commerce
3. Office of the Board of Investment, Ministry of Industry
4. Thai Rice Exporters Association
5. Thai Orchid Exporters Association
6. Thai Coffee Association
7. Thai Frozen Foods Association
8. Thai Broiler Processing Exporters Association
9. Thai Tapioca Factory Products Association
10. Thai Shrimp Association
11. Thai Fruits and Vegetables Exporters Association
12. Thai Agricultural Merchants Association
13. Thai Organic Trade Association
14. Thai Chamber of Commerce and the Board of Trade of Thailand

4.4 Sample Size Determination

According to Hair et al. (2006), SEM requires a large sample size to produce a reliable result. Jackson (2007) suggested that the ratio of sample size per estimated parameter should be greater than 10. However, due to the limited population, the researcher has applied the recommendation by Weston and Gore Jr. (2006) that the sample size should be more than 200. However, Boomsma and Hoogland (2001)

indicated that a sample size which is less than 200 may generate a problem of nonconvergence.

The researcher expects a response rate of about 20%, thus the total sample size is at least 317 agricultural exporting firms which is adequate for the practical use of SEM and suitable to the size of the target population. A census of the 1,585 target population of agricultural exporting firms is identified.

For the target population, the mailing address and name of the export manager or executive who is responsible for export practices was verified by phone. The total number of respondents in four product categories is shown in Table 4.1.

Table 4.1
Number of Respondents in Four Product Categories

Product Category	Population	Respondents
Crop and Grain	891	151 (16.95%)
Horticulture	334	90 (26.95%)
Fishery Product	218	75 (34.40%)
Livestock and Daily Product	142	53 (37.32%)
Total	1,585*	369 (23.28%)

Note: * The total number as of May 31, 2011.

4.5 Research Instrument

A questionnaire was developed based on the academic literature and a few in-depth interviews with export executives or practitioners who are involved in a firm's export practices. The measurements of each construct are presented and they use a 5-

point Likert scale. They are adapted from previous literature as well as being newly developed by the researcher. The details for measurement items are as follow:

4.5.1 Export Commitment

Three items adapted from Cavusgil and Zou (1994) and Chadee (2002). They use a five-point Likert scale with anchors with “least agree” and “most agree”.

1. Extent of personal commitment (executives or managers who take responsibility for exports in particular, export marketing department, working hours of staff at management level)
2. Extent of financial commitment (specific budget for exporting)
3. Extent of other resource (facilities) commitment (modern technology such as machines, computers)

4.5.2 International market knowledge

Two items are adapted from Morgan, Zou, Vorhies and Katsikeas (2003), and Ling-yee (2004). They use a five-point Likert scale anchored with “least agree” and “most agree”.

• Experience-based knowledge

1. Manager possesses exporting experience and expertise
2. Company has experience with operating in the particular export market
3. Manager acquires both in-house and external training related to the international market

• Information-based knowledge

1. Manager acquires information related to the export market from internal marketing research

2. Manager acquires information related to the export market from trade shows and relevant media
3. Manager acquires information related to the export market from external sources such as business partners and government agencies

4.5.3 Perceived competitive intensity

Four items are adapted from Morgan, Kaleka and Katsikeas (2004). A five-point Likert scale with “least agree” and “most agree” as scale anchors is used.

1. Price competition is a hallmark of our export market
2. There are many promotion wars in our export market
3. Anything that one competitor can offer others can match easily
4. There are many channel of distribution wars in our export market

4.5.4 Tariff and Non-Tariff barriers

Four items are adapted from O’Cass and Julian (2003) and Gripsrud (1990). A five- point Likert scale with “least agree” and “most agree” as scale anchors is used.

1. The extent of legal and regulation barriers in the export market
2. The extent of restricted quotas or prohibition in the export market
3. The extent of sanitary and technical standards in the export market
4. The extent of social standards such as labor and environment standards

4.5.5 Government agency support

This measure contains five items which are newly developed for this study. A five-point Likert scale with “least agree” and “most agree” as scale anchors is used.

1. Government provides information about international trade for exporting companies
2. Government provides the sources of funds for export
3. Government encourages the company to discover new export markets
4. Government supports for negotiation on international trade issues
5. Government supports promotion and providing trade shows for exporting companies

4.5.6 Export Product Strategy

- **Product quality**

Three items adapted from Menon, Jaworski and Kohli (1997), and Lages, Silva and Styles (2009).

1. Our importer often praises our product quality
2. The quality of our products is better than that of our major competitors
3. Our importer is firmly convinced that we offer very good quality products

- **Product safety**

Two items are newly created by the researcher.

1. Our product meets regulatory safety standards
2. There is process assurance by traceability or safety control

- **Product adaptation**

Four items are adapted from Lages, Abrantes and Lages (2008).

1. Company has adapted packaging to serve the export market
2. Company has adapted branding to serve the export market
3. Company has adapted label/logo to serve the export market
4. Company has adapted product features/characteristics to serve the export market

These items were put into Liker-type statements and were coded on a scale of one (least agree) to five (most agree). These statements aimed to assess the degree of difference between various aspects of agricultural products exported by Thai exporting firms and those products in the domestic market.

4.5.7 Export performance

Typically, two types of measures are used to capture export performance: subjective and objective (Katsikeas, Leonidou and Morgan, 2000; Sousa, 2004). Most measures are perceptual and self-reported because secondary information on the export activities of individual firms is not often publicly available.

This study uses objective (financial) performance measured by sales growth rate of the agricultural exporting firms during the past four years (2007-2010). Moreover, subjective performance is used to supplement market-based measures (market share, market expansion, and competitiveness). Subjective measures are taken of performance relative to original objectives set. The items use a five-point Likert scale with “very much over-estimated” (5) and “very much under-estimated” (1) as anchors and were adapted from Cavusgil and Zou (1994), Zou, Taylor and Osland (1998), and Mavrogiannis et al. (2008).

- **Objective export performance**

The objective measure is sales growth rate in 2007, 2008, 2009, and 2010. The choices include negative, stable, increase 1-5%, increase 6-10%, increase 11-15%, and increase more than 15%.

- **Subjective export performance**

1. Global market share meets company's objective set
2. Market diversification meets company's objective set
3. Improved global competitiveness meets company's objectives.

4.5.8 Business Profile

Business profile includes types of product category, firm size, firm's international experience, management's international experience, percentage of export to total sales, total sales value in 2010, types of export channel, types of product, major export destinations (region) which elaborate the characteristics of exporting firms.

4.6 Data Collection Method

The field survey was conducted in two stages as described below.

The first stage

Prior to the mail survey, in-depth interviews were conducted with exporters and executives from five agricultural association including Thai rice exporters association, Thai coffee association, Thai fruit exporters association, Thai frozen foods association, and Thai broiler processing exporters association. The in-depth interviews enabled discussion on the preliminary questionnaire, the preliminary operationalization of the constructs, and any suggestions.

The second stage

The data was collected through a mail survey. Initially, to ensure unambiguous language, interpretability, and measurement ability of items in the questionnaire, pretesting was conducted by face-to-face interview. Face-to-face interviews are an appropriate method for pretesting since the researcher is able to detect ambiguous language and ambiguous measurement items better than if the survey was conducted by mail (Reynolds and Diamantopoulos, 1998). The dissertation advisor and export practitioners were interviewed and rated the scores to all questions to check the content validity of the questionnaire. After revisions, the questionnaires were mailed to the targeted firms.

The mailing package sent to 1,585 agricultural exporting firms consisted of:

1. An introduction letter from Chulalongkorn University (Appendix B)
2. A souvenir
3. A prepaid postage envelope for questionnaire returns
4. A four-page questionnaire (Appendix C)

Aaker, Kumar and Day (2007) indicated the problem of low response rates for mail surveys so, the researcher used several methods to enhance response rate. They were (1) asking for cooperation from various agricultural export associations in Thailand, (2) following-up of non-respondent by telephone, and 3) promising to provide an executive summary to respondents after completion of the research.

The mailing packages were mailed to 1,585 agricultural exporting firms during June, 2011. After the completion of the follow-up period in July, 2011, 406 questionnaires were returned, yielding a 25.62 % response rate. Of 406 returned questionnaires, 37 questionnaires were disregarded because they were not in the scope of study or because of the incompleteness of the answers. Thus, the usable questionnaires were 369, yielding a 23.28% effective response rate.

According to Churchill (2001), if the missing values for each variable were less than 10%, a neutral value can be used to substitute. Therefore, the missing values in 369 usable questionnaires were replaced by the variable's mean instead of discarded from the analysis.

4.7 Data Analysis Technique

The Structural Equation Model (SEM) was formed and LISREL 8.52 was used to find if the data fitted the model. The SEM consists of two distinct components; (1) the measurement model, and (2) the structural model (Joreskog and Sorbom, 2000). The measurement model relates observed variables to latent constructs; therefore it

describes the measurement properties of the observed variables. The structural model provides an estimation of the hypothesized interrelationships among the variables.

The reliability of the measures was assessed by using Cronbach's alpha (α) (Cronbach, 1951). The researcher used SPSS for Windows 15.0 for the reliability test and descriptive analysis. The content validity was verified by Item-Objective-Congruence Index (IOC) and construct validity were tested by assessment of the fit between the observed and estimate covariance matrix by using confirmatory factor analysis (CFA) technique.

There were some control variables relating to firm characteristics that previous studies had shown to influence a firms' export performance. These variables were considered to examine the mean differences in export performance. They were product category, firm's size, and years of firm's international experience.

4.8 Summary

This chapter described the research methodology in the study. The target population in this study are 1,585 agricultural exporting firms located in Thailand categorized into four categories: crop and grain, horticulture, fishery, and livestock and daily products. The census method was used in the study and the data was collected by mail survey. All variables operationalized in the study were adapted from previous studies or newly created by the researcher. In-depth interviews with presidents and executives from five agricultural associations were conducted in the first stage; after that the preliminary questionnaire was pretested to avoid unambiguous language and measurement items. A total of 369 usable questionnaires yielded a 23.28% of effective response rate. SPSS for Windows 15.0 was used for descriptive statistics and reliability test of the measurements. Structural equation model was formed and LISREL 8.52 was used for confirmatory factor analysis and structural model assessment for eleven hypotheses testing.

Chapter V

Data Analysis

This chapter aims to examine the effects of firm's resource factors, external environmental factors, and export product strategy on the export performance of agricultural exporting firms in Thailand. It begins with the data preparation procedure, the demographic data of the agricultural exporting firms in Thailand, and the analysis of descriptive statistics. The following part describes the assessment of quality of the research instrument including reliability, content validity and construct validity. Next, the structural model assessment, and eleven hypotheses testing are examined. Finally, the supplementary findings on in-depth interviews are described, followed by the summary.

5.1 Data Preparation

After 1,585 questionnaire packages had been mailed during June 1st-30th, 2011, a total of 406 respondents returned questionnaires with a response rate of 25.62%. Of the returned questionnaire, 37 questionnaires were disqualified due to the fact that the respondent firms were not currently exporting, had terminated the business, and uncompleted answers. Therefore, the totals of 369 respondents were obtained, resulting in the effective response rate of 23.28%. Given the fact that the studies with top management are typically receiving response rate around 20% (Powell, 1992), the response rate of this study is normal and acceptable.

Prior to the data analysis section, the researcher examined that all responding firms export their products within four product categories: crop and grain, horticulture, fishery, and livestock and daily products, and they currently active in their export operations. The data was edited for completeness and legibility.

5.2 Business Profile

5.2.1 Percentage of Export

The respondents are categorized into four product categories: crop and grain, horticulture, fishery and livestock products (Table 5.1). Of the total 369 firms, 151 (40.9%) are crop and grain exporting firms; 90 (24.4%) are horticulture exporting firms; 75 (20.3%) are fishery exporting firms; and 53 (14.4%) are livestock exporting firms. Table 5.1 classifies the percentage of export for all 369 firms in each category. There are 290 out of 369 firms (78.6%) that export over than 50% of total sales, among these, 128 firms (34.7%) have 100% export.

Among four product categories, 124 out of 151 crop and grain firms (82.12%) export more than 50% and 55 firms (36.4%) have 100% export; 69 out of 90 horticulture firms (76.7%) export more than 50%, and 33 firms (36.7%) have 100% export; 66 out of 75 fishery firms (88.0%) export more than 50%, and 22 firms (29.3%) have 100% export; and lastly 31 out of 53 livestock firms (58.5%) export more than 50%, and 18 firms (34.0%) have 100% export. It can be concluded that majority of firms in all four categories typically export at higher level, mostly 100% and over than 80%, accordingly. Livestock is the only one category that most firms equally focus on both local sale and export.

Table 5.1
Firms Classified by Product Category and Percentage of Export

Percentage of Export	Category				Total
	Crop & Grain	Horticulture	Fishery	Livestock	
Less than 50%	27	21	9	22	79
	17.9%	23.3%	12.0%	41.5%	21.4%
51-80%	20	16	10	4	50
	13.2%	17.8%	13.3%	7.5%	13.6%
81-99%	49	20	34	9	112
	32.5%	22.2%	45.3%	17.0%	30.4%
100%	55	33	22	18	128
	36.4%	36.7%	29.3%	34.0%	34.7%
Total	151	90	75	53	369
	40.9%	24.4%	20.3%	14.4%	100%

5.2.2 Total Sales

The exporting firms' total sales in 2010 are demonstrated in Table 5.2. The figures show that the firms' sales volumes range from less than 10 million Baht to more than 1,000 million Baht. There are about 82 firms or 22.2% of total firms indicating a 2010 sales volume more than 1,000 million Baht, and 83 firms or 22.5% report 101-500 million Baht. Among 82 exporting firms which report a 2010 sales volumes over than 1,000 million Baht, 45 firms (54.9%) are crop and gain, 19 firms are fishery (23.2%), 15 firms are livestock (18.3%), and 3 firms are horticulture (3.7%), respectively. Small firms with less than 10 million Baht are mostly in horticulture category 21 firms (46.7%); in crop and grain category 12 firms (26.7%); in fishery category 7 firms (15.6%); and in livestock category 5 firms (11.1%), accordingly.

In Table 5.2, for each category, the sales volume of 45 out of 151 crop and grain firms (29.8%) account for more than 1,000 million Baht, which is similar to 19 out of 75 fishery firms (25.3%), and 15 out of 53 livestock firms (28.3%). However, only 3 out of 90 horticulture firms report sales volume over than 1,000 million Baht.

Table 5.2

Firms Classified by Product Category and Firms' Total Sales in 2010

Sales in 2010 mill. Baht	Category				Total
	Crop & Grain	Horticulture	Fishery	Livestock	
<10	12	21	7	5	45
	7.9%	23.3%	9.3%	9.4%	12.2%
10-50	23	20	14	13	70
	15.2%	22.2%	18.7%	24.5%	19.0%
51-100	30	26	6	5	67
	19.9%	28.9%	8.0%	9.4%	18.2%
101-500	32	17	24	10	83
	21.2%	18.9%	32.0%	18.9%	22.5%
501-1,000	9	3	5	5	22
	6.0%	3.3%	6.7%	9.4%	6.0%
>1000	45	3	19	15	82
	29.8%	3.3%	25.3%	28.3%	22.2%
Total	151	90	75	53	369
	40.9%	24.4%	20.3%	14.4%	100%

5.2.3 Firm's Size

Regarding a firm's size which is measured by number of employees (Table 5.3), the sizes range from minimum of 2 employees to maximum of 20,000 employees. About half of the total firms (181 firms or 50.4%) employ only up to 50 employees. There are only 42 firms (or 11.7%) which employ more than 500 employees. For each product category, half of crop and grain firms employ up to 50 employees (79 firms or 53.7%) which are similar to horticulture firms (55 firms or 62.5%), and livestock firms (27 firms or 50.9%). On the other hand, for fishery firms, the sizes are larger than the other three categories. About 44 out of 70 firms or more than 60% of fishery firms employ more than 100 employees. In addition, 22 fishery firms or 31.0% employ more than 500 employees. According to the mean average of number of employees, it can be concluded that fishery firms explicitly employ more employees than crop and grain, horticulture and livestock firms.

Table 5.3
Firms Classified by Product Category and Number of Employees

No. of Employees (Persons)	Category				Total
	Crop & Grain	Horticulture	Fishery	Livestock	
Less than 50	79	55	20	27	181
	53.7%	62.5%	28.2%	50.9%	50.4%
51-100	19	13	7	4	43
	12.9%	14.8%	9.9%	7.5%	12.0%
101-500	40	16	22	15	93
	27.2%	18.2%	31.0%	28.3%	25.9%
More than 500	9	4	22	7	42
	6.1%	4.5%	31.0%	13.2%	11.7%
Total	147	88	71	53	359
Mean	158.7	126.4	766.8	752.0	358.6
Median	50.0	40.0	250.0	50.0	50.0
Mode	50	30	200	50	50
Std. deviation	310.8	208.9	1,291.8	2,844.3	1,279.5
Minimum	2	3	4	5	2
Maximum	2,000	1,000	6,500	20,000	20,000
Missing value	4	2	4	0	10
Total	147	88	71	53	359

5.2.4 Firm's International Experience

Respondents are asked to indicate the firm's international experience which is the number of years that firms have been operating in agricultural exporting business (Table 5.4). The results show that the mean average of firm's international experience is 16.16 years, whereas median is 13.00 and mode is 10 years. The range of firms' international experiences is rather wide from 1 to 70 years experience. Among four groups of product categories, crop and grain firms and livestock firms obtain international experiences in terms of years more than fishery and horticulture firms. The average years of experiences for crop and grain and livestock firms are 17 years, while those of fishery and horticulture firms are 15 years and 13 years, respectively. There are 4 missing values in this question.

Table 5.4
Mean, Median, Mode, Minimum and Maximum of Firm's International Experience in Terms of Years

	Category				Total (365)
	Crop & Grain (149)	Horticulture (89)	Fishery (74)	Livestock (53)	
Mean	17.98	13.01	15.68	17.04	16.16
Median	14.00	10.00	14.00	15.00	13.00
Mode	10	10	10	10	10
Minimum	1	2	2	1	1
Maximum	70	50	42	45	70

5.2.5 Management's International Experience

Management's international experience is the number of years that the respondents who are export managers or executives have been working in agricultural exporting business. From Table 5.5, management's international experiences range

from 1 year to 42 years, which is about the same pattern across the four product categories. The mean average of management's international experiences for all firms is 13.24 years. Livestock firms show the highest mean average of management's international experience among the four groups at 13.66 years; about the same figure as fishery firms and crop and grain firms which are 13.54 years and 13.27 years accordingly. However, management's international experience of horticulture firms is the least one at 12.71 years. There are 4 missing values in this question.

Table 5.5

Mean, Median, Mode, Minimum and Maximum of Management's International Experience in Terms of Years

	Category				Total (365)
	Crop & Grain (149)	Horticulture (89)	Fishery (74)	Livestock (53)	
Mean	13.27	12.71	13.54	13.66	13.24
Median	10.00	10.00	10.00	10.00	10.00
Mode	10	10	10	10	10
Minimum	1	1	1	1	1
Maximum	37	35	42	37	42

5.2.6 Types of Export Channel

The respondents are asked about type of export channel that agricultural exporting firms currently use. Table 5.6 presents the four types of export channel; direct export, representative office, trading firm and agent or broker. Most of the respondents use more than one type of channel, thus the figures show the multiple responses of data. It can be concluded that direct export is the most widely used method with 311 firms (46.9%) currently use. Trading firms and agent or broker are used by 155 firms (23.4%) and 125 firms (18.9%), respectively. Representative office is used by 72 firms or 10.69%.

Regarding the product category, most firms have similar way of operating export channel across four groups of firms. About 80% of the total firms in each group typically use direct export as the main export channel; 130 out of 151 crop and grain firms (86.1%), 75 out of 90 horticulture firms (83.8%), 67 out of 75 fishery firms (89.3%), and 39 out of 53 livestock firms (73.6%). Trading firm and agent/broker are the second main method that all four groups used over than 20%, and representative office is the least used.

Table 5.6

Firms Classified by Product Category and Types of Export Channel

Types of Export Channel	Category				Total
	Crop & Grain	Horticulture	Fishery	Livestock	
Direct export	130	75	67	39	311
	86.1%	83.3%	89.3%	73.6%	46.9%
Representative Office	24	18	16	14	72
	15.9%	20.0%	21.3%	26.4%	10.69%
Trading firm	76	25	28	26	155
	50.3%	27.8%	37.3%	49.1%	23.4%
Agent/Broke	56	23	25	21	125
	37.1%	25.6%	33.3%	39.6%	18.9%
Total	151	90	75	53	369
	40.9%	24.4%	20.3%	14.4%	100%

5.2.7 Types of Export Product

Regarding the types of product that firms are currently exporting, Table 5.7 shows that 144 respondents or 39.0% export more than ten types of product. 111 firms or 30.1% export only up to three product types. For crop and grain firms, 96 firms or 63.5% export up to six product types. Horticulture, fishery and livestock firms export more variety of products than crop and grain firms. These three groups

report that they export more than seven types of product; 50 horticulture firms (55.6%), 49 fishery firms (65.3%), and 26 livestock firms (49.0%). There are 41 out of 90 of horticulture firms export more than ten product types due to the fact that this category obtains various kinds of fruits and vegetables.

Table 5.7
Firms Classified by Product Category and Types of Export Product

Types of export product	Category				Total
	Crop & Grain	Horticulture	Fishery	Livestock	
1-3 products	60	25	10	16	111
	39.7%	27.8%	13.3%	30.2%	30.1%
4-6 products	36	15	16	11	78
	23.8%	16.7%	21.3%	20.8%	21.1%
7-9 products	14	9	7	6	36
	9.3%	10.0%	9.3%	11.3%	9.8%
> 10 products	41	41	42	20	144
	27.2%	45.6%	56.9%	37.7%	39.0%
Total	151	90	75	53	369
	40.9%	24.4%	20.3%	14.4%	100%

5.2.8 Regions of Export Market

Regarding the final part in business profile, respondents are asked about the region of key export market. Table 5.8 shows the regions of key export market of agricultural exporting firms in Thailand. The major export market is concentrated in Asia Pacific region (153 firms or 41.5%). Northern US., EU and ASEAN are accounted for 60 firms (16.3%), 59 firms (16.0%), and 49 firms (13.3%), respectively. The regions that firms are less likely to export are Africa, Central and Southern US.,

and others such as Middle East which accounted for 48 firms (12.9%). It can be concluded that Asia Pacific region is the most popular export market across all four product categories given the fact that 43.7% of crop and grain firms, 42.2% of horticulture firms, 40.0% of fishery firms, and 35.8% of livestock firms export to this region.

Table 5.8
Firms Classified by Product Category and Regions of Export Market

Key Export Region	Category				Total
	Crop & Grain	Horticultur	Fishery	Livestock	
Northern US.	21	11	20	8	60
	13.9%	12.2%	26.7%	15.1%	16.3%
Central/Southern US.	2	0	0	0	2
	1.3%	0%	0%	0%	0.5%
EU	19	14	11	15	59
	12.6%	15.6%	14.7%	28.3%	16.0%
Africa	17	4	3	3	27
	11.3%	4.4%	4.0%	5.7%	7.3%
ASEAN	21	16	6	6	49
	13.9%	17.8%	8.0%	11.3%	13.3%
Asia Pacific	66	38	30	19	153
	43.7%	42.2%	40.0%	35.8%	41.5%
Others	5	7	5	2	19
	3.3%	7.8%	6.7%	3.8%	5.1%
Total	151	90	75	53	369
	40.9%	24.4%	20.3%	14.4%	100%

5.3 Descriptive Analysis

There are five exogenous variables and two endogenous variables in this study. Exogenous variables are grouped into five constructs: export commitment, international market knowledge, perceived competitive intensity, tariff and non-tariff barriers, and government agency support. Endogenous variables are grouped into two constructs: export product strategy and export performance. Seven observed variables measure the five exogenous constructs, while five observed variables measure the two endogenous constructs. The abbreviations of all constructs and observed variables are shown in Table 5.9.

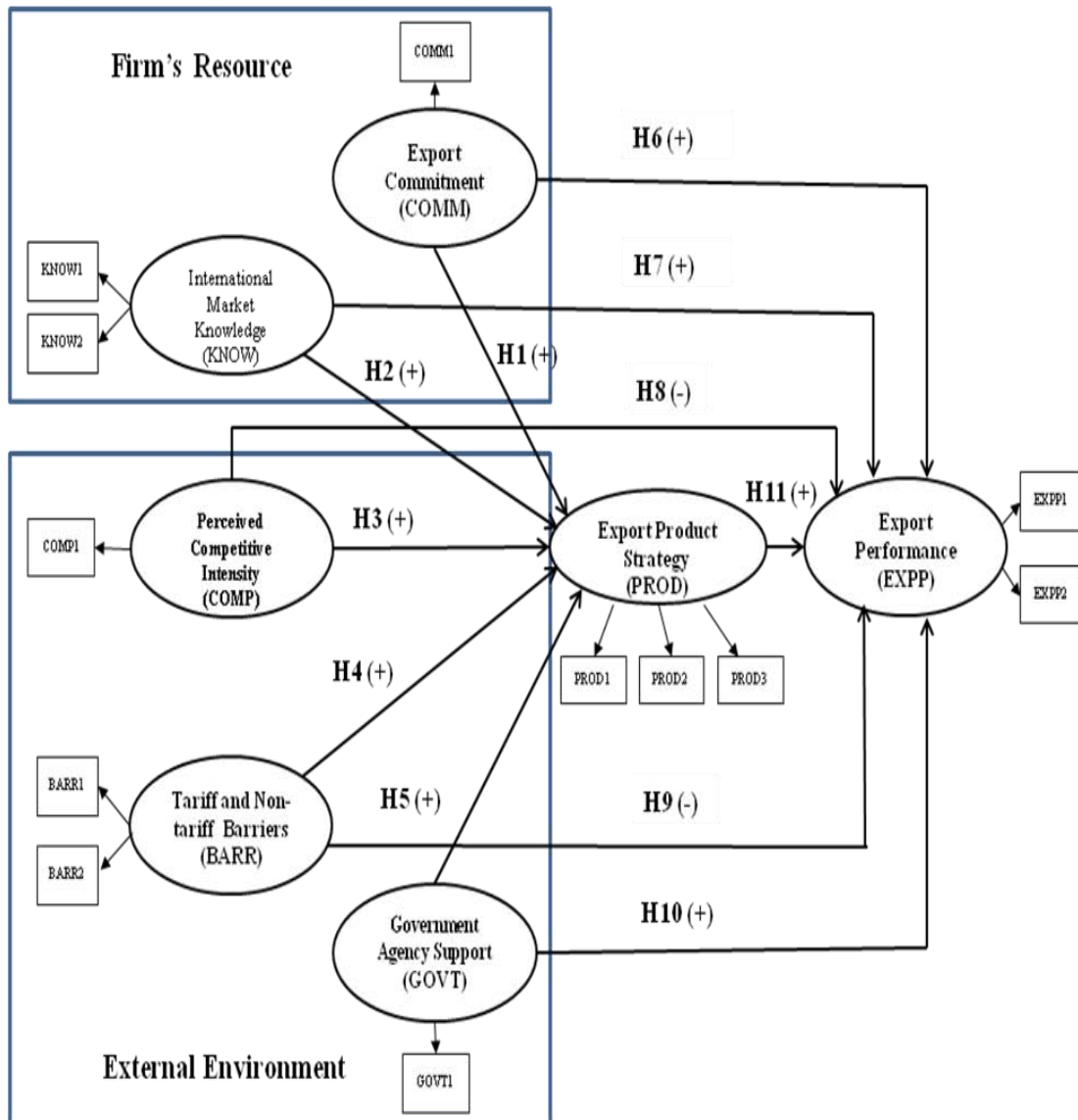
Table 5.9
Abbreviations of all Constructs and Variables

Constructs	Abbreviation		Definitions
	Constructs	Observed Variables	
Export Commitment	COMM	COMM1	Human resource, budget and facility
International Market Knowledge	KNOW	KNOW1 KNOW2	Export experience Export information
Perceived Competitive Intensity	COMP	COMP1	Perceived competition in product, price, place, promotion
Tariff and Non-tariff Barriers	BARR	BARR1 BARR2	Tariff barrier Non-tariff barrier
Government Agency Support	GOVT	GOVT1	Government provide support on information, funds, new market, negotiation and promotion
Export Product Strategy	PROD	PROD1 PROD2 PROD3	Product quality Product safety Product adaptation
Export Performance	EXPP	EXPP1 EXPP2	Financial performance Market performance

Figure 5.1 shows the proposed model of the study. The model posits that a firm's resource and external environment influence export performance both directly and indirectly through export product strategy. The resources of a firm which are expected to directly affect export performance are export commitment (COMM) and international market knowledge (KNOW). For the external environment, perceived competitive intensity (COMP) and tariff and non-tariff barriers (BARR) have direct negative effects on a firm's export performance, but positive influences on a firm's export product strategy. Government agency support (GOVT) is expected to have a positive effect on export product strategy and export performance. Finally, export product strategy (PROD) is viewed as the strategic factor that directly affects export performance (EXPP) and mediates the effects of a firm's resource and external environmental factors.

The total numbers of observed variables in the model are twelve; seven variables are exogenous and five variables are endogenous. COMM1 is an indicator of COMM which is the mean average of three questions in the questionnaire. KNOW1 and KNOW2 are indicators of KNOW. KNOW1 is the mean average of three questions and KNOW2 is the mean average of three questions in the questionnaire. COMP1 is an indicator of COMP which is the mean average of four questions in the questionnaire. BARR1 and BARR2 are indicators of BARR. BARR1 is the mean average of two questions, and BARR2 is the mean average of two questions in the questionnaire. GOVT1 is an indicator of GOVT which is the mean average of five questions in the questionnaire. PRDD1, PROD2 and PROD3 are indicators of PROD. PROD1 is the mean average of three questions; PROD2 is the mean average of two questions, and PROD3 is the mean average of four questions in the questionnaire. Lastly, EXPP1 and EXPP2 are indicators of EXPP. EXPP1 is the mean average of four questions, and EXPP2 is the mean average of three questions.

Figure 5.1
The Proposed Model of the Determinants on Export Performance
of Agricultural Firms in Thailand



5.3.1 Normality Test of Data

The total of 369 samples are tested for normal distribution by examining the skewness and kurtosis of all observed variables in the model. Skewness is a measure of the asymmetry of the probability distribution around the mean of that variable (Hair et al., 2006).. Hair et al. (2006) suggested that if standardized skewness value (Z_{skewness}) are fallen outside the critical value, the variables have non-normal distribution with a significant level. The critical value are ± 1.96 at 0.05 level of significance, or ± 2.58 at 0.01 level of significance. The findings are shown in Table 5.10. Among the 12 observed variables in the model, Z_{skewness} of 4 out of 12 variables have Z_{skewness} falling within ± 1.96 critical value. Therefore, 8 observed variables are asymmetrically distributed which are COMM1, KNOW1, KNOW2, COMP1, PROD1, PROD2, PROD3 and EXPP2. The distribution of these variables is skewed around their means with negative or left skewness at 0.05 significant level. BARR1, BARR2, GOVT1 and EXPP1 are the four variables that have symmetrically distributed.

In addition, kurtosis is a measure of relative peakness or flatness of distribution compared with normal distribution (Hair et al., 2006).. Hair et al. (2006) suggested that if standardized kurtosis value (Z_{kurtosis}) are fallen outside the critical value, the variables have non-normal distribution with a significant level. The critical value are ± 1.96 at 0.05 level of significance, or ± 2.58 at 0.01 level of significance. The findings show that 2 out of 12 observed variables have Z_{kurtosis} values falling within ± 1.96 critical value which are KNOW2 and COMP1, therefore, they have normal distribution. On the other hand, 10 out of observed variables are peaked, with value higher than normal distribution.

From the results of Skewness and Kurtosis statistics, it can be concluded that the sample is not normally distributed. However, Hair et al. (2006) explained that when the sample size is large (sample size is over 200), it tends to reduce the effects of normal distribution because Z_{skewness} and Z_{kurtosis} are sensitive to sample size. This

research employs over 300 firms; therefore, the results should be robust and should not be affected by non-normal distribution.

Table 5.10
Skewness and Kurtosis Statistics of Observed Variables (n=369)

No.	Indicators	Skewness		Kurtosis	
		Skewness	Z _{skewness}	Kurtosis	Z _{kurtosis}
1	COMM1	-0.990	-7.763	1.001	3.925
2	KNOW1	-0.947	-7.426	1.423	5.579
3	KNOW2	-0.523	-4.101	0.126	0.494*
4	COMP1	-0.515	-4.038	-0.370	-1.450*
5	BARR1	-0.104	-0.815*	-0.877	-3.438
6	BARR2	0.053	0.415*	-0.943	-3.697
7	GOVT1	0.212	1.662*	-0.677	-2.654
8	PROD1	-0.692	-5.426	0.686	2.689
9	PROD2	-0.692	-5.426	0.686	2.689
10	PROD3	-1.075	-8.430	0.754	2.956
11	EXPP1	0.060	0.470*	-0.671	-2.631
12	EXPP2	-1.119	-8.775	1.370	5.371

Note: $Z_{skewness} = \text{Skewness} / \sqrt{6/n}$, where n = sample size

$Z_{kurtosis} = \text{Kurtosis} / \sqrt{24/n}$, where n = sample size

* Significant at the 0.05 level

5.3.2 Mean Statistics of Constructs

Table 5.11 shows mean statistics of all constructs across the four product categories. In the analysis, there are five exogenous variables: export commitment (COMM), international market knowledge (KNOW), perceived competitive intensity (COMP), tariff and non-tariff barriers (BARR) and government agency support (GOVT), and two endogenous variables: export product strategy (PROD) and export performance (EXPP).

According to exogenous variables, the mean for the whole sample of COMM and KNOW are not much different. The mean of COMM is 3.92 (SD = 0.87), while the mean of KNOW is 3.82 (SD = 0.74). Among the four groups of products, the mean value of COMM is 3.91 (SD = 0.85) for crop and grain, 3.90 (SD = 0.82) for horticulture and 3.77 (SD = 1.14) for livestock, while that of fishery firms is slightly higher at 4.08 (SD = 0.77). For KNOW, the mean value for fishery firms, 3.90 (SD = 0.51), is also slightly higher than the other three groups: in crop and grain, mean = 3.79 (SD = 0.80), in horticulture, mean = 3.87 (SD = 0.62), and in livestock, mean = 3.72 (SD = 0.84). It can be implied that fishery firms have higher mean value of firm's resource factors (COMM and KNOW) than crop and grain, horticulture and livestock firms, accordingly.

The mean of COMP for the whole sample is higher than the mean of BARR. The mean of COMP is 3.29 (SD = 1.06), while the mean of BARR is 3.07 (SD = 1.12). The mean of COMP for crop and grain is highest at 3.38 (SD = 1.10), for fishery is 3.26 (SD = 1.03), for horticulture is 3.23 (SD = 1.06), and for livestock is 3.26 (SD = 1.00). For BARR, the mean for livestock firms is highest at 3.37 (SD = 1.19), for fishery is 3.23 (SD = 1.07), for crop and grain is 2.99 (SD = 1.14), and for horticulture is lowest at 2.89 (SD = 1.05).

The mean of GOVT for the whole sample is lowest among all variables, mean = 2.68, SD = 1.03. Horticulture and livestock firms have lowest mean at 2.28

(SD = 0.99) and 2.53 (SD = 1.10), respectively. Whereas the means of the crop and grain and fishery firms are around the average mean: mean = 2.63 (SD = 1.06) for crop and grain, and mean = 2.72 (SD = 0.97) for fishery firms.

For endogenous variable, the mean of PROD for the whole sample is 4.09 (SD = 0.65). Among four groups of products, the mean of PROD ranges from 4.01 to 4.26. The mean of PROD for fishery firms is the highest at 4.26 (SD = 0.48). For crop and grain firms, the mean of PROD is the lowest at 4.01 (SD = 0.72). For horticulture and livestock firms, the means are 4.03 (SD = 0.60) and 4.14 (SD = 0.72) which are slightly different.

Finally, for EXPP, the mean value for the whole sample is slightly low at 3.18 (SD = 0.86). Among the four product categories, the mean for crop and grain firms is the highest at 3.25 (SD = 0.95), while the mean for livestock firms is the lowest at 2.99 (SD = 0.72). The mean for horticulture and fishery firms are about the whole sample's mean, 3.16 (SD = 0.92) and 3.19 (SD = 0.69), respectively.

To sum up, among the means of all seven constructs which range from 2.68 to 4.09, the mean of PROD is the highest at 4.09 while the mean of GOVT is explicitly lower than the others at 2.68.

Table 5.11
Mean Statistics of Five Exogenous and Two Endogenous Constructs

Constructs	Category	N	Mean	SD	Minimum	Maximum
Exogenous COMM	Crop and Grain	151	3.91	0.85	1.33	5.00
	Horticulture	90	3.90	0.82	1.33	5.00
	Fishery	75	4.08	0.77	1.00	5.00
	Livestock	53	3.77	1.14	1.00	5.00
	Total	369	3.92	0.87	1.00	5.00

Table 5.11 (Cont.)
Mean Statistics of Five Exogenous and Two Endogenous Constructs

Constructs	Category	N	Mean	SD	Minimum	Maximum
KNOW	Crop and Grain	151	3.79	0.80	1.00	5.00
	Horticulture	90	3.87	0.62	1.67	5.00
	Fishery	75	3.90	0.51	2.00	5.00
	Livestock	53	3.72	0.84	1.33	5.00
	Total	369	3.82	0.71	1.00	5.00
COMP	Crop and Grain	151	3.38	1.10	1.00	5.00
	Horticulture	90	3.23	1.06	1.00	5.00
	Fishery	75	3.26	1.03	1.00	5.00
	Livestock	53	3.17	1.00	1.00	5.00
	Total	369	3.29	1.06	1.00	5.00
BARR	Crop and Grain	151	2.99	1.14	1.00	5.00
	Horticulture	90	2.89	1.05	1.00	5.00
	Fishery	75	3.23	1.07	1.00	5.00
	Livestock	53	3.37	1.19	1.00	5.00
	Total	369	3.07	1.12	1.00	5.00
GOVT	Crop and Grain	151	2.63	1.06	1.00	5.00
	Horticulture	90	2.28	0.99	1.00	5.00
	Fishery	75	2.72	0.97	1.00	5.00
	Livestock	53	2.53	1.10	1.00	5.00
	Total	369	2.68	1.03	1.00	5.00
Endogenous PROD	Crop and Grain	151	4.01	0.72	1.75	5.00
	Horticulture	90	4.03	0.60	2.17	5.00
	Fishery	75	4.26	0.48	3.00	5.00
	Livestock	53	4.14	0.72	2.00	5.00
	Total	369	4.09	0.65	1.75	5.00

Table 5.11 (Cont.)

Mean Statistics of Five Exogenous and Two Endogenous Constructs

Constructs	Category	N	Mean	SD	Minimum	Maximum
EXPP	Crop and Grain	151	3.25	0.95	1.00	6.00
	Horticulture	90	3.16	0.92	1.00	6.00
	Fishery	75	3.19	0.69	1.00	6.00
	Livestock	53	2.99	0.72	1.00	6.00
	Total		369	3.18	0.86	1.00

5.3.3 Control Variable Test

The objective of control variable test is to examine whether different types of product categories, firm's size and firm's international experience should be specified as the control variables in the model. The test statistics begins with the assumption of one-way ANOVA that is all variances must be equal. Levene statistical test can be used to test the assumption. If the assumption of equality of variances is met, then ANOVA can be performed by using F-statistics. If the statistical results of ANOVA do not show the significant difference for the means of export performance construct, these three variables will not be specified as the control variables and will not be included to the model.

- Different Types of Product Category

There are four types of product categories: crop and grain, horticulture, fishery and livestock. The researcher examined the mean differences of four product categories on export performance. The statistical test begins with the equal variance assumption of one-way ANOVA. The results of Levene statistics is 1.498 (p-value = 0.215) which means EXPP has equal variance across the four types of product. Then, F-test is used to test the mean differences among four product categories. EXPP shows no mean differences among four groups with $F = 2.044$ and

p-value = 0.107, which is greater than 0.05 significant level. Therefore, it can be concluded that different product categories do not have impact on the export performance. Therefore, four types of product will not be treated as control variable and is not included in the model.

- Different Firm's Size

Firm's size is represented by number of employees and classified into three groups: less than 50 employees, 51-200 employees and over 200 employees. The researcher examined the mean differences of three groups of firm's size on export performance. The statistical test begins with the equal variance assumption of one-way ANOVA. The results of Levene statistics is 1.096 (p-value = 0.335) which means EXPP has equal variance across three groups of firm's size. Then, F-test is used to test the mean differences among three groups of firm's size. EXPP shows no difference in means among three groups at 0.05 significant level with $F = 1.468$ and p-value = 0.232, which is greater than 0.05 significant level. Therefore, it can be concluded that the different firms' size do not have impact on the export performance. Therefore, firm's size will not be treated as control variable and is not included in the model.

- Different Firm's International Experience

Firm's international experience are classified into three periods: less than 10 years, 10-20 years and more than 20 years. The researcher examined the mean differences of three groups of firm's international experience on export performance. The statistical test begins with the equal variance assumption of one-way ANOVA. The results of Levene statistics is 1.236 (p-value = 0.297) which means EXPP has equal variance across three groups of firm's international experience. Then, F-test is used to test the mean differences among three groups of firm's international experience. EXPP shows no difference in means among three groups at 0.05 significant level with $F = 1.423$ and p-value = 0.236 which is greater

than 0.05 significant level. Therefore, it can be concluded that different firm's international experience of three groups do not have impact on the export performance. Therefore, firm's international experience will not be treated as control variable and is not included in the model.

5.3.4 Correlation Statistics

The correlations of all seven constructs are shown in Table 5.12. The bivariate correlations show the relative magnitude and direction of a linear relationship among the constructs (Hair et al., 2006). The correlation coefficients of COMM and KNOW are 0.689, with p-value equals to 0.000. The statistical result shows positive correlation and highly significant at 0.01 significant level. Therefore, firms with high export commitment tend to have high international market knowledge.

For the external environmental factors, COMP and BARR, have low correlation at 0.196 with p-value less than 0.01. COMP and GOVT are not statistically correlated since p-value is more than 0.05. In addition, BARR and GOVT have low correlation at 0.125 with p-value 0.016. GOVT is positively related to KNOW with correlation equals to 0.186 at 0.01 significant level.

Both firm's resource factors (COMM and KNOW) are positively related to PROD with correlations 0.491 and 0.594, respectively. The correlations are significant because p-value is less than 0.01. On the other hand, the three external environmental factors (COMP, BARR and GOVT) are not significantly related to PROD.

EXPP is significantly correlated to both firm's resource factors (COMM and KNOW), and three external environmental factors (COMP, BARR and GOVT), and PROD at 0.01 significant level. COMM and KNOW are positively related to EXPP with correlations 0.248 and 0.268, respectively. Correlations among

EXPP, COMP, BARR and GOVT are -0.278, -0.119 and 0.172, respectively. PROD also has a weak positive relationship with EXPP. The correlation is 0.158 with p-value less than 0.01 significant level.

Table 5.12
Correlation Matrix of the Constructs

		COMM	KNOW	COMP	BARR	GOVT	PROD	EXPP
COMM	Pearson Correlation Sig. (2-tailed)	1.000						
KNOW	Pearson Correlation Sig. (2-tailed)	0.689** 0.000	1.000					
COMP	Pearson Correlation Sig. (2-tailed)	0.055 0.291	0.086 0.098	1.000				
BARR	Pearson Correlation Sig. (2-tailed)	0.093 0.074	0.058 0.264	0.196** 0.000	1.000			
GOVT	Pearson Correlation Sig. (2-tailed)	0.078 0.133	0.186** 0.000	0.093 0.074	0.125* 0.016	1.000		
PROD	Pearson Correlation Sig. (2-tailed)	0.491** 0.000	0.594** 0.000	0.049 0.345	-0.063 0.228	0.051 0.326	1.000	
EXPP	Pearson Correlation Sig. (2-tailed)	0.248** 0.000	0.268** 0.000	-0.278** 0.000	-0.119** 0.001	0.172** 0.001	0.158** 0.002	1.000
\bar{X}		3.91	3.79	3.38	2.99	2.63	4.01	3.25
SD		0.85	0.80	1.10	1.14	1.06	0.72	0.95

Note: ** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

5.4 The Quality of the Research Instrument

The objective of this part is to assess the relationships between observed variables and their corresponding constructs. The quality of the research instrument is assessed to assure that the instruments consistently measure the constructs that they are intended to measure (Joreskog and Sorbom, 2000). The quality of the research instruments is examined by assessing the content validity, the reliability and the

construct validity of all observed variables and constructs in the model. The content validity is assessed by using Index of Item-Objective-Congruence (IOC) (Rovinelli and Hambleton, 1977), the reliability is assessed by using Cronbach's alpha (α) to verify the internal consistency of the constructs (Hair et al., 2006), and the construct validity is examined by confirmatory factor analysis (CFA) of each construct (Joreskog and Sorbom, 2000).

5.4.1 Content Validity

Content validity means the degree to which a measure covers the range of meanings included within a concept (Babbie, 2007). Content validity is examined by using Index of Item-Objective-Congruence (IOC) developed by Rovinelli and Hambleton (1977). It is a method for gauging agreement among raters or judges regarding how well items do (or do not) tap the established objectives. Content validity are validated by the agricultural exporters whom meet the researcher's criteria as the experts who are specialized and having at least ten years experiences in the field of agricultural exporting business before distribute the questionnaire to the sample.

The IOC is used to validate the measurement of all seven constructs in the model by three agricultural exporting managers/experts, specifically the content experts, who come from different sectors. The ratings are 1 (item clearly taps objective), 0 (unsure/unclear), and -1 (item clearly does not tap objective). The opinions of each expert are recorded, and being calculated for Index of Item-Objective-Congruence (IOC) by this formula:

$$IOC = \Sigma R/N$$

where R = total sum scores of opinions
 N = number of experts

The result is an index ranging from -1 to +1. An index of -1 means all experts completely agree that the items do not tap the researcher's objectives. An index of +1 means all experts completely agree that the items are measuring the researcher's objectives. The results of IOC for all measures are shown in Table 5.14. Table 5.13 shows that there are 38 questions in four parts of questionnaire. IOC index is 1.00 for 27 questions, 0.80-0.99 for 7 questions, and 0.70-0.79 for 4 questions. All of the items are above the cutting criteria at 0.50. Therefore, it can be concluded that all items tap the established objectives and none of the items need to be revised.

Table 5.13
Item-Objective-Congruence (IOC) from Experts

IOC Index	Questions Part 1	Questions Part 2	Questions Part 3	Questions Part 4	Total Items
1.00	9	5	10	3	27
0.80-0.99	-	4	3	-	7
0.70-0.79	-	-	-	4	4
Total Items	9	9	13	7	38

5.4.2 Reliability Test

Reliability measures the internal consistency of a set of variables composed of a latent construct (Babbie, 2007). High reliability of a construct demonstrates high chance of all variables in a construct to measure the same thing (Hair et al., 2006). Reliability is tested by using Cronbach's alpha (α) (Cronbach, 1951). Cronbach's alpha has value between 0 and 1, and should be greater than 0.70 for sufficient internal consistency (Nunnally and Bernstein, 1994: 264-265).

The results of reliability test are shown in Table 5.14. All seven constructs have reliabilities range from 0.613 to 0.920. The results show that all constructs have good reliability. Although EXPP has Cronbach's alpha at 0.613, however, Hair et al.

(2006) explained that Cronbach's alpha between 0.6 and 0.7 is acceptable, particularly in exploratory research. In addition, Mavrogiannis et. al (2008) argued that it was not unusual to find scales with lower value than conventional value at 0.7. Thus, it can be concluded that all seven constructs have shown moderate to high reliability results.

Table 5.14
The results of Reliability Test of Seven Constructs

Construct	Cronbach's alpha
Exogenous	
COMM	0.703
KNOW	0.792
COMP	0.719
BARR	0.774
GOVT	0.920
Endogenous	
PROD	0.765
EXPP	0.613

5.4.3 Construct Validity: Confirmatory Factor Analysis (CFA) of Each Construct

5.4.3.1 Export Commitment

Export commitment (COMM) is measured by one observed variable (COMM1) which is the mean average of three indicators or questions. The questions are about the human resource, budget and facility that firms commit to export activities. Cronbach's alpha of this construct is 0.703. Since there is only one indicator for this construct, the researcher uses the square root of Cronbach's alpha (0.84) as a fixed parameter (Joreskog and Sorbom, 2000). The findings of confirmatory factor analysis (CFA) for export commitment are shown in Figure 5.2 and Table 5.15.

Figure 5.2 reveals that the Chi-square test is not significantly different from zero at a level 0.05 ($\chi^2 = 3.35$, $df = 1$, $p\text{-value} = 0.08$) and RMSEA is 0.075. Therefore, it can be concluded that there is a goodness of fit between the estimated model and the observed data. From Table 5.15, the completely standardized factor loading of COMM1 is shown to be 0.99 and has a significant impact at 0.05 significant level. The completely standardized loading that greater than 0.7 is considered to be included in the model (Hair et. al., 2006). Composite Reliability or R^2 is the percentage of variance of construct explained by observed variables. R^2 is shown to be 0.98 which means the reliability of COMM1 to measure COMM. Therefore, COMM1 is included in the model for further analysis.

Figure 5.2
The Result of CFA for Export Commitment

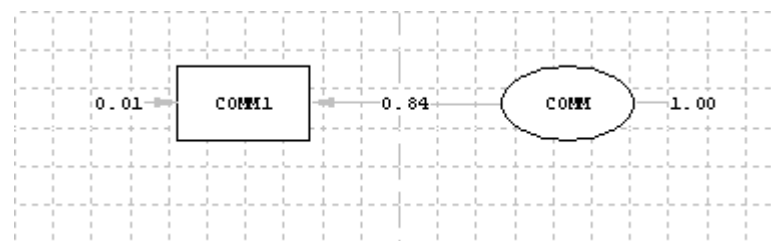


Table 5.15
Standardized Factor Loading, t-value and
Composite Reliability of Export Commitment

Variable	Completely Standardized Loading	SE	t-value	Composite Reliability (R^2)
COMM1	0.99	-	-	0.98
Chi-square = 3.35 df = 1 p-value = 0.08 RMSEA = 0.075				

5.4.3.2 International Market Knowledge

International market knowledge (KNOW) construct is measured by two observed variables which are export experience (KNOW1) and export information (KNOW2). Table 5.16 shows the correlation matrix of two observed variables. The results show that the correlation of KNOW1 and KNOW2 is 0.610 which is different from zero at 0.01 significant level. Bartlett's test of sphericity Chi-Square is 170.549 which is significant at 0.05 significant level. The Kaiser-Meyer-Olkin Measure of sampling adequacy (KMO) is 0.500. The KMO value meets the minimum necessary of threshold of sampling adequacy that is 0.50 (Hair et al., 2006). As a result, the analysis can be proceeded to the next step.

The results of confirmatory factor analysis (CFA) are shown in Figure 5.3 and Table 5.17. In figure 5.3, the researcher fixes parameter KNOW1 as 1 to be a reference indicator of the model to make it easier to compare the magnitude of factor loadings between these observed variables. The Chi-square is not significantly different from zero at 0.05 significant level ($\chi^2 = 2.77$, $df = 2$, $p\text{-value} = 0.25$), and RMSEA is 0.032. Therefore, it can be concluded that there is a goodness of fit between the estimated model and the observed data. From Table 5.17, the completely standardized factor loadings are 0.83 for KNOW1 and 0.93 for KNOW2. The two standardized factor loadings have significant impacts at 0.05 significant level. Composite Reliability or R^2 of KNOW1 is 0.68 while KNOW2 is 0.86. Therefore, KNOW1 and KNOW2 are included in the model for further analysis.

Table 5.16
Correlation Matrix of International Market Knowledge Construct

	KNOW1	KNOW2
KNOW1	1.000	0.610
KNOW2	0.610	1.000

Figure 5.3
The Result of CFA for International Market Knowledge

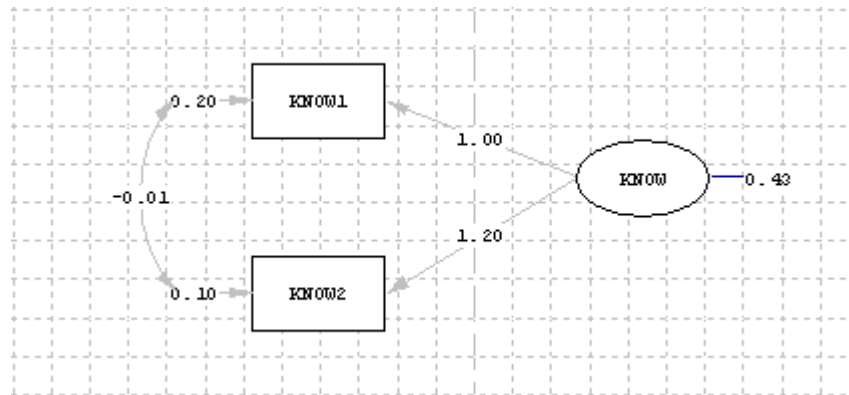


Table 5.17
Standardized Factor Loading, t-value and
Composite Reliability of International Market Knowledge

Variable	Completely Standardized Loading	SE	t-value	Composite Reliability (R ²)
KNOW1	0.83	-	-	0.68
KNOW2	0.93	0.03	13.08	0.86
Chi-square = 2.77 df = 2 p-value = 0.25 RMSEA = 0.032				

5.4.3.3 Perceived Competitive Intensity

Perceived competitive intensity (COMP) is measured by one observed variable (COMP1) which is the mean average of four questions. The questions are about the competition in the export market that firms are facing in terms of product, price, place and promotion. Cronbach's alpha of this construct is 0.719. Since there is only one indicator for this construct, the researcher uses the square root of Cronbach's alpha (0.85) as a fixed parameter (Joreskog and Sorbom, 1996). The findings of confirmatory factor analysis (CFA) are shown in figure 5.4 and Table 5.18.

Figure 5.4 reveals that the Chi-square test is not significantly different from zero at a 0.05 significant level ($\chi^2 = 0.88$, $df = 1$, p -value = 0.35) and RMSEA is 0.000. Therefore, it can be concluded that there is a goodness of fit between the estimated model and the observed data. From Table 5.18, the completely standardized factor loading of COMP1 is shown to be 0.82 and has a significant impact at a 0.05 significant level. Composite Reliability or R^2 of this construct is 0.67. Therefore, COMP1 is included in the model for further analysis.

Figure 5.4
The Result of CFA for Perceived Competitive Intensity

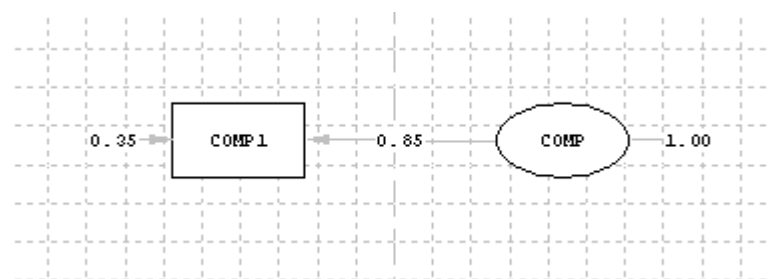


Table 5.18
Standardized Factor Loading, t-value and
Composite Reliability of Perceived Competitive Intensity

Variable	Completely Standardized Loading	SE	t-value	Composite Reliability (R^2)
COMP1	0.82	-	-	0.67
Chi-square = 0.88 $df = 1$ p -value = 0.35 RMSEA = 0.000				

5.4.3.4 Tariff and Non-Tariff Barriers

Tariff and Non-tariff barriers (BARR) construct is measured by two observed variables which are tariff barrier (BARR1) and non-tariff barrier (BARR2). Table 5.19 shows the correlation matrix of two observed variables. The results show that the correlation between BARR1 and BARR2 is 0.574 which is different from zero at 0.01 significant level. Bartlett's test of sphericity Chi-Square is 146.415 which is significant at 0.05 significant level. The Kaiser-Meyer-Olkin Measure of sampling adequacy (KMO) is 0.500. The KMO value meets the minimum criteria of threshold of sampling adequacy which is 0.50 (Hair et al., 2006). As a result, the analysis can be proceeded to the next step.

The results of confirmatory factor analysis (CFA) are shown in Figure 5.5 and Table 5.20. In figure 5.5, the researcher fixes parameter BARR1 as 1 to be a reference indicator of the model to make it easier to compare the magnitude of factor loadings between these observed variables. The Chi-square test is not significantly different from zero at 0.05 significant level ($\chi^2 = 3.01$, $df = 2$, $p\text{-value} = 0.22$) and RMSEA is 0.037. Therefore, it can be concluded that there is a goodness of fit between the estimated model and the observed data. From Table 5.20, the completely standardized factor loadings are 0.80 for BARR1 and 0.89 for BARR2. The two standardized factor loadings have significant impacts at 0.05 significant level. Composite Reliability or R^2 of BARR1 is 0.65 while BARR2 is 0.79. Therefore, BARR1 and BARR2 should be included in the model for further analysis.

Table 5.19
Correlation Matrix of Tariff and Non-tariff Barriers Construct

	BARR1	BARR2
BARR1	1.000	0.574
BARR2	0.574	1.000

Figure 5.5
The Result of CFA for Tariff and Non-tariff Barriers

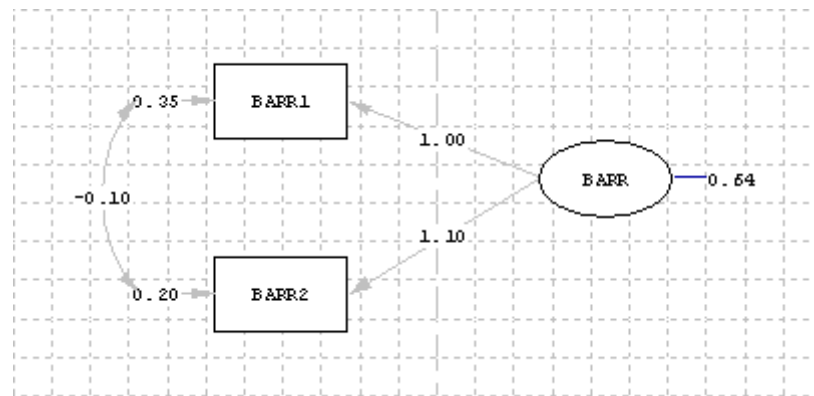


Table 5.20
Standardized Factor Loading, t-value and
Composite Reliability of Tariff and Non-tariff Barriers

Variable	Completely Standardized Loading	SE	t-value	Composite Reliability (R^2)
BARR1	0.80	-	-	0.65
BARR2	0.89	0.05	12.20	0.79
Chi-square = 3.01 df = 2 p-value = 0.22 RMSEA = 0.037				

5.4.3.5 Government Agency Support

Government agency support (GOVT) is measured by one observed variable (GOVT1) which is the mean average of five questions. Those questions are about the government support in information, funds, new market, negotiation and promotion providing to the exporting firms. Cronbach's alpha of this construct is 0.920. Since there is only one indicator for this construct, the researcher uses the square root of Cronbach's alpha (0.95) as a fixed parameter (Joreskog and Sorbom,

1996). The findings of the confirmatory factor analysis (CFA) are shown in figure 5.6 and Table 5.21.

Figure 5.6 reveals that the Chi-square test is not significantly different from zero at a 0.05 significant level ($\chi^2 = 0.76$, $df = 1$, $p\text{-value} = 0.37$) and RMSEA is 0.000. Therefore, it can be concluded that there is a goodness of fit between the estimated model and the observed data. From Table 5.21, the completely standardized factor loading of GOVT1 is high at 0.95 and has a significant impact at 0.05 significant level. R^2 of this construct is 0.90. Therefore, GOVT1 is included in the model for further analysis.

Figure 5.6

The Result of CFA for Government Agency Support

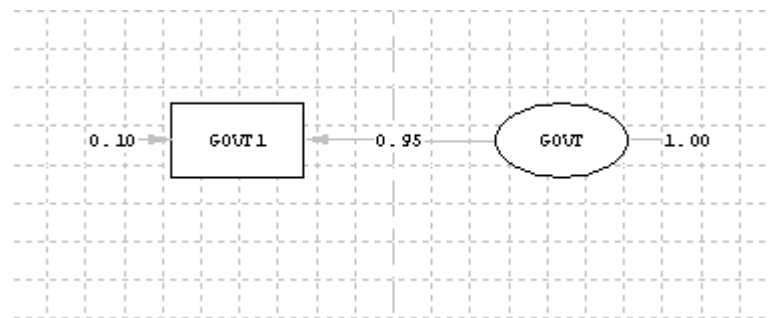


Table 5.21

Standardized Factor Loading, t-value and Composite Reliability of Government Agency Support

Variable	Completely Standardized Loading	SE	t-value	Composite Reliability (R^2)
GOVT1	0.95	-	-	0.90
Chi-square = 0.76 df = 1 p-value = 0.37 RMSEA = 0.000				

5.4.3.6 Export Product Strategy

Export product strategy is measured by three observed variables which are product quality (PROD1), product safety (PROD2) and product adaptation (PROD3). Table 5.22 presents the correlation matrix of the variables. The results show that the correlations range from 0.501 (between PROD1 and PROD3) to 0.545 (between PROD2 and PROD3). The correlation of all pairs of observed variables are different from zero at 0.01 significant level. Bartlett's test of sphericity Chi-Square is 287.015 which is significant at 0.05 significant level. The Kaiser-Meyer-Olkin Measure of sampling adequacy (KMO) is 0.698. The KMO value exceeds the minimum criteria of threshold of sampling adequacy that is 0.50 (Hair et al., 2006). As a result, the analysis can be proceeded to the next step.

The results of CFA are shown in Figure 5.7 and Table 5.23. In figure 5.7, the researcher fixes parameter PROD1 as 1 to be a reference indicator of the model to make it easier to compare the magnitude of factor loadings among these observed variables. The Chi-square test is not significantly different from zero at 0.05 significant level ($\chi^2 = 3.25$, $df = 1$, $p\text{-value} = 0.07$) and RMSEA is 0.078. Therefore, it can be concluded that there is a goodness of fit between the estimated model and the observed data. From Table 5.23, the completely standardized factor loadings are 0.74 (PROD1), 0.78 (PROD2) and 0.77 (PROD3), respectively. All standardized factor loadings have significant impacts at 0.05 significant level. Composite Reliability or R^2 of PROD1 is 0.55 while PROD2 and PROD3 are 0.61 and 0.60, respectively. Therefore, PROD1, PROD2 and PROD3 are included in the model for further analysis.

Table 5.22
Correlation Matrix of Export Product Strategy Construct

	PROD1	PROD2	PROD3
PROD1	1	0.538	0.501
PROD2	0.538	1	0.545
PROD3	0.501	0.545	1

Figure 5.7
The Result of CFA for Export Product Strategy

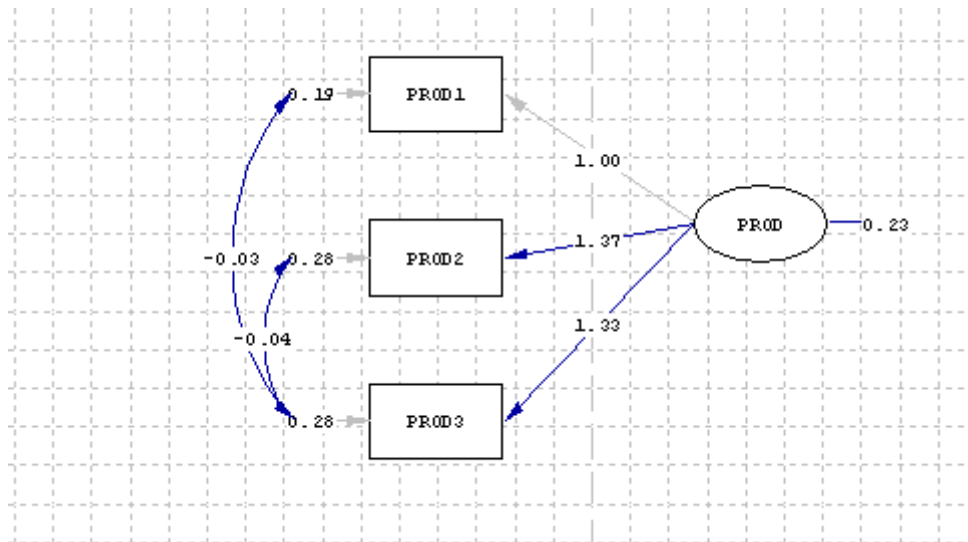


Table 5.23
Standardized Factor Loading, t-value and
Composite Reliability of Export Product Strategy

Variable	Completely Standardized Loading	SE	t-value	Composite Reliability (R^2)
PROD1	0.74	-	-	0.55
PROD2	0.78	0.10	13.68	0.61
PROD3	0.77	0.10	13.08	0.60
Chi-square = 3.25 df = 1 p-value = 0.07 RMSEA = 0.078				

5.4.3.7 Export Performance

Export performance (EXPP) construct is measured by two observed variables which are financial performance (EXPP1) and market performance (EXPP2). Table 5.24 shows the correlation matrix of two observed variables. The results show that the correlation of EXPP1 and EXPP2 is rather low at 0.425 which is different from zero at 0.01 significant level. Bartlett's test of sphericity Chi-Square is 73.071 which is significant at 0.05 significant level. The Kaiser-Meyer-Olkin

Measure of sampling adequacy (KMO) is 0.500. The KMO value meets the minimum necessary of threshold of sampling adequacy that is 0.50 (Hair et al., 2006). As a result, the analysis can be proceeded to the next step.

The results of confirmatory factor analysis (CFA) are shown in Figure 5.8 and Table 5.25. In figure 5.8, the researcher fixes parameter EXPP2 as 1 to be a reference indicator of the model to make it easier to compare the magnitude of factor loadings between these observed variables. The Chi-square test is not significantly different from zero at 0.05 significant level ($\chi^2 = 5.03$, $df = 2$, $p\text{-value} = 0.08$) and RMSEA is 0.064. Therefore, it can be concluded that there is a goodness of fit between the estimated model and the observed data. From Table 5.25, the completely standardized factor loadings are 0.77 for EXPP1 and 0.85 for EXPP2. The two completely standardized factor loadings have significant impacts at 0.05 significant level. Composite Reliability or R^2 of EXPP1 is 0.60 while EXPP2 is 0.72. Therefore, EXPP1 and EXPP2 are included in the model for further analysis.

Table 5.24
Correlation Matrix of Export Performance Construct

	EXPP1	EXPP2
EXPP1	1	0.425
EXPP2	0.425	1

Figure 5.8
The Result of CFA for Export Performance

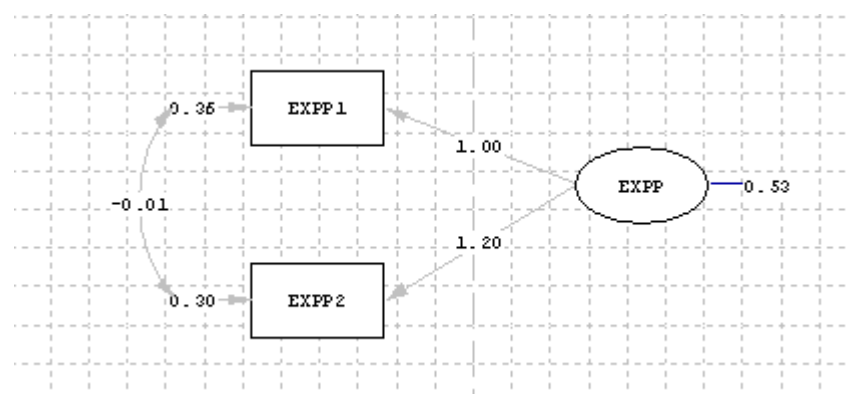


Table 5.25
Standardized Factor Loading, t-value and
Composite Reliability of Export Performance

Variable	Completely Standardized Loading	SE	t-value	Composite Reliability (R ²)
EXPP1	0.77	-	-	0.60
EXPP2	0.85	0.04	12.34	0.72
Chi-square = 5.03 df = 2 p-value = 0.08 RMSEA = 0.064				

5.5 Structural Model Assessment

This section analyzes the fit assessment of the structural model for structural equation modeling (SEM). The criteria for assessing goodness of fit are Chi-square test (λ^2), Comparative Fit Index (CFI), Incremental Fit Index (IFI), Normative Fit Index (NFI), Relative Fit Index (RFI), and Root Mean Square Error of Approximation (RMSEA) (Hair et al, 2006). According to Hair et al. (2006), p-value should be more than 0.05 or give non-significant result which means that we cannot reject the null hypothesis. Thus, there is no difference between the observed and the estimated covariance matrix. In addition, CFI, IFI, NFI and RFI should be more than a recommended value at 0.90, and RMSEA should be less than 0.08 (Hair et al, 2006).

The findings of structural model assessment are shown in Table 5.26. The goodness of fit indices verify that the hypothesized model fits to the data. The $\chi^2 = 29.91$ and d.f.=19. The p-value of Chi-square = 0.05294 which is not statistically significant indicating a model fit. It means that the observed and covariance matrix are not statistically significant different. The ratio of Chi-square value to degree of freedom is between 1 and 2 ($29.91/19 = 1.57$). Other fit indices support the fit model with the observed data: CFI (0.99), IFI (0.99), NFI (0.98) and RFI (0.94) are above the recommended criteria at 0.90. Further, RMSEA is 0.04 which is lower than the

criterion value 0.08. Therefore, it can be concluded that the structural model satisfactorily fits to the data.

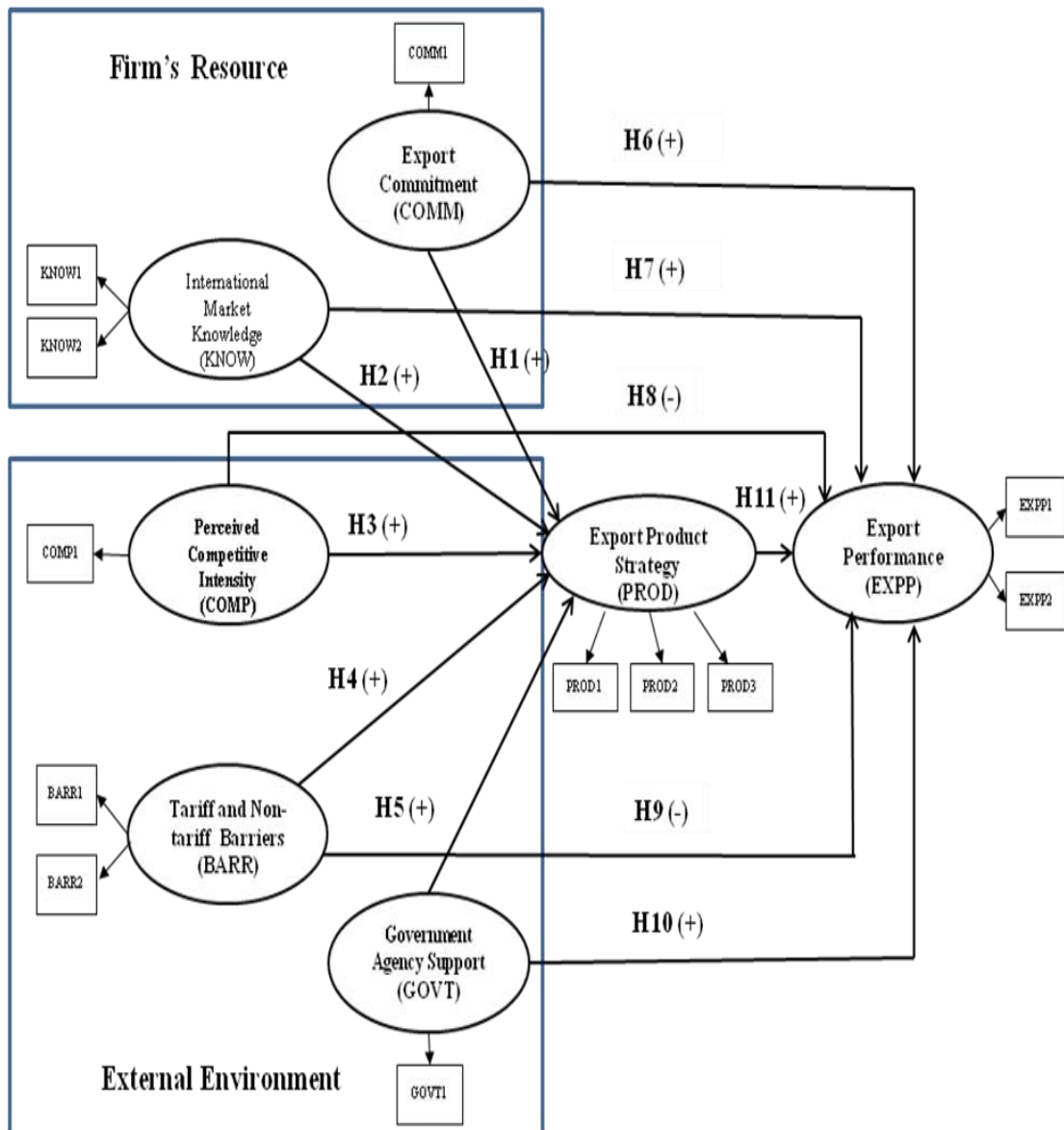
Table 5.26
Goodness of Fits Indices for the Structural Model

Fits Statistics	Value Obtained	Level of Acceptable Fit (Hair et al., 2006)
χ^2/df	1.57	Between 1 and 2
p-value	0.05294	Not significant
CFI	0.99	0.90 or more
IFI	0.99	0.90 or more
NFI	0.98	0.90 or more
RFI	0.94	0.90 or more
RMSEA	0.04	0.08 or less

5.6 Hypotheses Testing

The proposed model of the determinants on export performance of agricultural firms in Thailand with eleven hypotheses is depicted in Figure 5.9.

Figure 5.9
The Proposed Model



The results of eleven hypotheses testing for the proposed model are shown in Table 5.27. The findings are described as the following:

5.6.1 Hypothesis 1

Hypothesis 1 proposes that export commitment (COMM) has a positive influence on export product strategy (PROD). The standardized coefficient of the relationship between export commitment and export product strategy is 0.17 with t-value = 2.09. The t-value value exceeds the critical value (1.96) at 0.05 significant level. This result shows that there is a significantly positive relationship between export commitment and export product strategy of agricultural exporting firms. Therefore, Hypothesis 1 cannot be rejected.

5.6.2 Hypothesis 2

Hypothesis 2 proposes that international market knowledge (KNOW) has a positive influence on export product strategy (PROD). The standardized coefficient of the relationship between international market knowledge and export product strategy is 0.79 with t-value = 5.59. The t-value exceeds the critical value (2.54) at 0.01 significant level. This result shows that there is a significantly positive relationship between international market knowledge and export product strategy of agricultural exporting firms. Therefore, Hypothesis 2 cannot be rejected.

5.6.3 Hypothesis 3

Hypothesis 3 proposes that perceived competitive intensity (COMP) has a positive influence on export product strategy (PROD). The standardized coefficient of the relationship between perceived competitive intensity and export product strategy is 0.09 with t-value = 1.11. The t-value falls between critical value (-1.96 and +1.96) at 0.05 significant level. This results show that coefficient of the relationship between perceived competitive intensity and export product strategy of agricultural exporting firms is not statistically significant. Therefore, Hypothesis 3 is rejected.

5.6.4 Hypothesis 4

Hypothesis 4 proposes that tariff and non-tariff barriers (BARR) have a positive influence on export product strategy (PROD). The standardized coefficient of the relationship between tariff and non-tariff barriers and export product strategy is -0.01 with t-value = -0.20. The t-value falls between critical value (-1.96 and +1.96) at 0.05 significant level. This results show that coefficient of the relationship between tariff and non-tariff barriers and export product strategy of agricultural exporting firms is not statistically significant. Therefore, Hypothesis 4 is rejected.

5.6.5 Hypothesis 5

Hypothesis 5 proposes that government agency support (GOVT) has a positive influence on export product strategy (PROD). The standardized coefficient of the relationship between government agency support and export product strategy is -0.08 with t-value = -0.96. The t-value falls between critical value (-1.96 and +1.96) at 0.05 significant level. This results show that coefficient of the relationship between government agency support and export product strategy of agricultural exporting firms is not statistically significant. Therefore, Hypothesis 5 is rejected.

5.6.6 Hypothesis 6

Hypothesis 6 proposes that export commitment (COMM) has a positive influence on export performance of agricultural exporting firms (EXPP). The standardized coefficient of the relationship between export commitment and export performance is 0.16 with t-value = 2.11. The t-value exceeds the critical value (1.96) at 0.05 significant level. This result shows that there is a significantly positive relationship between export commitment and export performance of agricultural exporting firms. Therefore, Hypothesis 6 cannot be rejected.

5.6.7 Hypothesis 7

Hypothesis 7 proposes that international market knowledge (KNOW) has a positive influence on export performance of agricultural exporting firms (EXPP). The standardized coefficient of the relationship between international market knowledge and export performance is 0.19 with t-value = 2.08. The t-value value exceeds the critical value (1.96) at 0.05 significant level. This result shows that there is a significantly positive relationship between international market knowledge and export performance of exporting firms. Therefore, Hypothesis 7 cannot be rejected.

5.6.8 Hypothesis 8

Hypothesis 8 proposes that perceived competitive intensity (COMP) has a negative influence on export performance of agricultural exporting firms (EXPP). The standardized coefficient of the relationship between perceived competitive intensity and export performance is -0.43 with t-value = -5.97. The t-value value is less than the critical value (-2.54) at 0.01 significant level, and the minus sign indicates the negative relationship. This result shows that there is a significantly negative relationship between perceived competitive intensity and export performance of agricultural exporting firms. Therefore, Hypothesis 8 cannot be rejected.

5.6.9 Hypothesis 9

Hypothesis 9 proposes that tariff and non-tariff barriers (BARR) have a negative influence on export performance of agricultural exporting firms (EXPP). The standardized coefficient of the relationship between tariff and non-tariff barriers and export performance is -0.18 with t-value = -1.99. The t-value value is less than the critical value (-1.96) at 0.05 significant level, and the minus sign indicates the negative relationship. This result shows that there is a significantly negative relationship between tariff and non-tariff barriers and export performance of agricultural exporting firms. Therefore, Hypothesis 9 cannot be rejected.

5.6.10 Hypothesis 10

Hypothesis 10 proposes that government agency support (GOVT) has a positive influence on export performance of agricultural exporting firms (EXPP). The standardized coefficient of the relationship between government agency support and export performance is 0.19 with t-value = 2.55. The t-value value exceeds the critical value (2.54) at 0.01 significant level. This result shows that there is a significantly positive relationship between government agency support and export performance of agricultural exporting firms. Therefore, Hypothesis 10 cannot be rejected.

5.6.11 Hypothesis 11

Hypothesis 11 proposes that export product strategy (PROD) has a positive influence on export performance of agricultural exporting firms (EXPP). The standardized coefficient of the relationship between export product strategy and export performance is -0.11 with t-value = -0.33. The t-value falls between critical value (-1.96 and +1.96) at 0.05 significant level. This results show that coefficient of the relationship between export product strategy and export performance of agricultural exporting firms is not statistically significant. Therefore, Hypothesis 11 is rejected.

Table 5.27 shows the direct, indirect and total effects of all six constructs on the export performance. The indirect effects of five constructs: COMM, KNOW, COMP, BARR and GOVT on export performance cannot be found since their beta coefficients are not statistically significant. The t-value for indirect effects of COMM, KNOW, COMP, BARR and GOVT on export performance are -0.33, -0.33, -0.34, 0.35 and 0.32, respectively. These values fall between the critical value -1.96 and +1.96 at 0.05 significant level. Therefore, these five constructs have only direct impacts on export performance. In addition, export product strategy (PROD) which is a mediator in the model is not found to have impact on the export performance (EXPP) because its direct effect is not statistically significant (t-value = -0.33). Since PROD does not have indirect effect on EXPP, the direct effect equals to total effect.

Table 5.27
The Statistical Results of Hypotheses Testing

Hypotheses	Constructs	Direct Effects		Indirect Effects		Total Effects		Correlation (r)
		Std. Beta Coefficient	t-value	Std. Beta Coefficient	t-value	Std. Beta Coefficient	t-value	
H1	COMM→PROD	0.17	2.09*	-	-	0.17	2.09*	0.71
H2	KNOW→PROD	0.79	5.59**	-	-	0.79	5.59**	0.89
H3	COMP→PROD	0.09	1.11	-	-	0.09	1.11	0.15
H4	BARR→PROD	-0.01	-0.20	-	-	-0.01	-0.20	-0.08
H5	GOVT→PROD	-0.08	-0.96	-	-	-0.08	-0.96	0.16
H6	COMM→EXPP	0.16	2.11*	-0.02	-0.33	0.18	2.29*	0.27
H7	KNOW→EXPP	0.19	2.08*	-0.05	-0.33	0.24	2.64**	0.29
H8	COMP→EXPP	-0.43	-5.97**	-0.01	-0.34	-0.42	-6.81**	-0.35
H9	BARR→EXPP	-0.18	-1.99*	0.01	0.35	-0.19	-1.97*	-0.24
H10	GOVT→EXPP	0.19	2.55**	0.01	0.32	0.18	3.00**	0.26
H11	PROD→EXPP	-0.11	-0.33	-	-	-0.11	-0.33	0.21

Note: ** Significant at the 0.01 level
* Significant at the 0.05 level

From the hypotheses testing, the researcher found seven hypotheses that cannot be rejected and four rejected hypotheses (Table 5.27). Therefore, the researcher further analyzes the coefficient of determination (R^2) of endogenous constructs and also investigates direct and indirect effect of the constructs. Table 5.28 shows R^2 for export product strategy (PROD) and export performance (EXPP). The coefficient of determination (R^2) is a measure of the strength of the relationship among variables and measure the proportion of the variance of the dependent variable that is explained by the independent variables (Hair et al., 2006).

R^2 for export product strategy (PROD) is shown to be 0.78, means that COMM, KNOW, COMP, BARR and GOVT altogether can explain 78 percent of variation in PROD. While R^2 for export performance (EXPP) is 0.30, means that COMM, KNOW, COMP, BARR, GOVT and PROD can explain only 30 percent of variation in EXPP.

Table 5.28
Coefficient of Determination of Endogenous Constructs

Construct	R^2
PROD	0.78
EXPP	0.30

The summary of eleven hypotheses testing is shown in Table 5.29. The firm's resource factors: export commitment (COMM) (H1) and international market knowledge (KNOW) (H2) have positive effects on export product strategy (PROD). On the other hands, the effects of external environmental factors: perceived competitive intensity (COMP) (H3), tariff and non-tariff barriers (BARR) (H4) and government agency support (GOVT) (H5) on export product strategy (PROD) are not statistically supported. In addition, the positive impacts of export commitment (COMM) (H6), international market knowledge (KNOW) (H7) and government agency support (GOVT) (H10) on export performance (EXPP) are statistically

supported. The negative effects of perceived competitive intensity (COMP) (H8) and tariff and non-tariff barriers (BARR) (H9) on export performance (EXPP) are also statistically supported. Finally, the positive effect of export product strategy (PROD) as a mediator on export performance (EXPP) (H3) is not statistically supported.

Table 5.29
Summary of the Results of Hypotheses Testing

Hypotheses	Results
H1: The positive impact of export commitment on export product strategy	Supported
H2: The positive impact of international market knowledge on export product strategy	Supported
H3: The positive impact of perceived competitive intensity on export product strategy	Not supported
H4: The positive impact of tariff and non-tariff barrier on export product strategy	Not supported
H5: The positive impact of government agency support on export product strategy	Not supported
H6: The positive impact of export commitment on export performance	Supported
H7: The positive impact of international market knowledge on export performance	Supported
H8: The negative impact of perceived competitive intensity on export Performance	Supported
H9: The negative impact of tariff and non-tariff barriers on export performance	Supported
H10: The positive impact of government agency support on export performance	Supported
H11: The positive impact of export product strategy on export performance	Not supported

Figure 5.10 graphically presents the overall results of hypotheses testing of the proposed model. The standardized estimates are used to compare the

importance of the determinants on export performance. The export product strategy (PROD) is influenced by a firm's resource factors: COMM and KNOW. The standardized coefficient of COMM is 0.17 and the standardized coefficient of KNOW is 0.79. This means that international market knowledge has strongest positive impact on export product strategy. The results also show that three external environmental factors: COMP, BARR and GOVT do not significantly affect PROD.

The results show that the standardized coefficient of COMP, -0.43, is the most influential variable upon export performance. However, it has a negative impact on EXPP which means perceived competitive intensity in the market can reduce firms' financial and marketing performances. Thus, the proposed hypothesis is supported that perceived competitive intensity would have a negative effect on the export performance of agricultural firms.

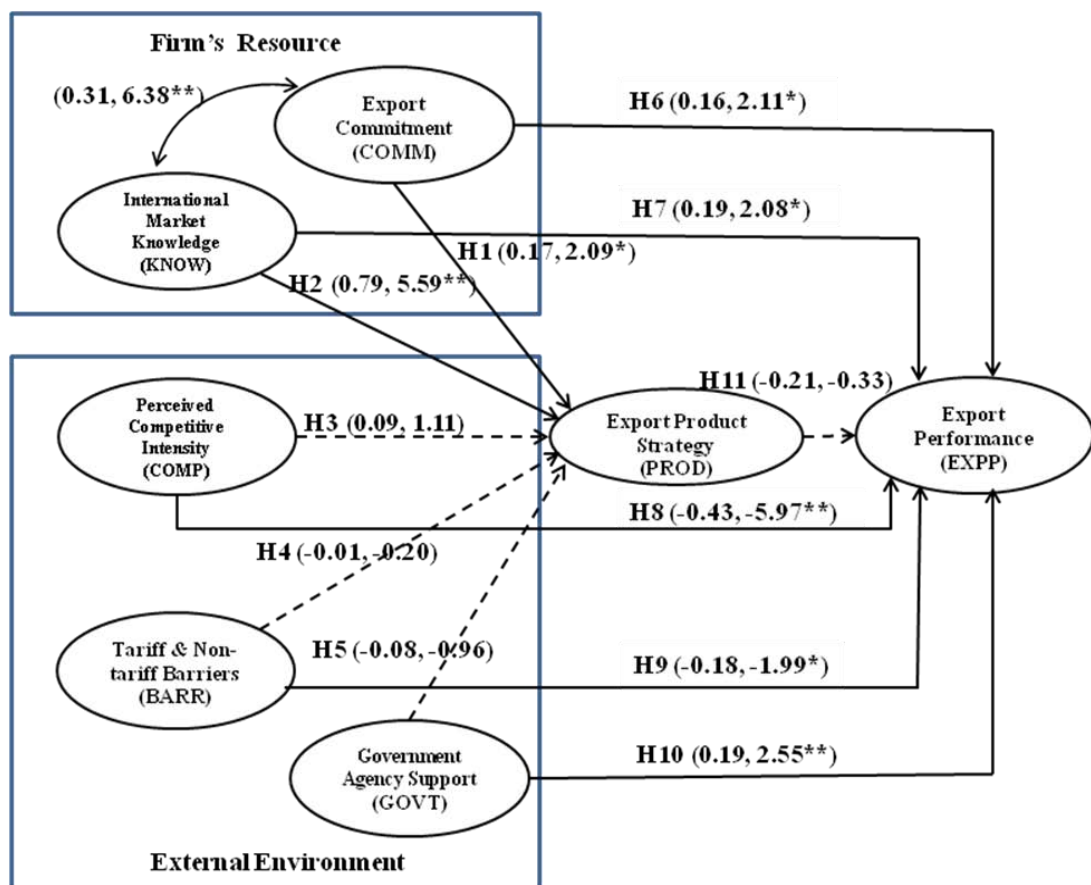
In addition, KNOW and GOVT have the same magnitude and positive impacts upon export performance with standardized coefficients 0.19. Similarly, standardized coefficient of COMM equals to 0.16. The findings support the proposed hypotheses that export commitment, international market knowledge and government agency support could make exporting firms to have more ability to compete overseas, thus enhance the export performance of agricultural firms.

Furthermore, BARR has the least impact on export performance with standardized coefficient -0.18. The minus sign implies negative impact upon the export performance which means tariff and non-tariff barriers of host country can pose threats to foreign exporters. As a result, firms who cannot adapt to meet the legislation requirements of the host country will have lower export performance. This finding supports the proposed hypothesis that tariff and non-tariff barriers negatively affect export performance.

Finally, the standardized coefficient of the relationship between PROD and EXPP is -0.11, which means a negative relationship between export product

strategy and export performance. The minus sign can be interpreted that exporting firms are not able to implement effective export product strategy. Those firms cannot compete and may lose their export market to competitors. However, this negative impact is not statistically significant.

Figure 5.10
The Results of the Structural Equation Model



Note: Numbers in parentheses represent the standardized beta coefficient and t-value

** Significant at the 0.01 level

* Significant at the 0.05 level

—————> means significant impact

- - - - -> means Non-significant impact

5.7 Results of In-Depth Interview

During January, 2012, eight exporting executives were interviewed to justify the results of this research. Those executives are working in crop and grain exporting firms, horticultural exporting firms, fishery exporting firms, and livestock and daily products exporting firms. Their positions were vice president, export manager, managing director and owner of the agricultural exporting businesses. The results of an in-depth interview about the determinants on export performance of agricultural firms in Thailand are explained as follows:

In terms of factors influencing export performance of agricultural exporting firms in Thailand, most executives have agreed that firm's resource is crucial for performance achievement. The commitment of resources from the company including human resource, budget and facility, play a key role to encourage the export performance. When asking about the international market knowledge, most executives said that not only experiences, but also acquiring information from inside and outside the company were very crucial for doing business nowadays. They argued that manager's experiences among the agricultural exporting firms were not considerably different since they have learned from daily operations. They suggested that work experience, export commitment and information on foreign markets were the main factors for successful exporters.

When discussing about the external environmental factors affecting export performance, all executives believed that the price competition was the most important factors for commodity products. Besides, the tariff and non-tariff barriers had some impacts on particular products and particular export market, for example, vegetable exporting to EU, fruit exporting to Japan, fishery product exporting to the U.S., and livestock product exporting to EU and the U.S.. Talking about the role of government agency for supporting export businesses, most executives did not satisfied with non-active role of government agency. They commented that small firms have less opportunity to access the export assistance program than medium and

large firms. Furthermore, the proactive role for negotiation with host government in case of any issues related to export's barriers was not sufficient.

Regarding the export product strategy, the executives had different opinions about the strategy used for competing in the international market. Although all of them agreed that product strategy was a major tool to compete, executives from small firms gave more importance to pricing strategy than other marketing strategies. Executives from crop and grain exporting firms argued that although they believed in their product's quality, the nature of massed product make it is hardly to differentiate their products. Therefore, economics situation and exchange rate had more impacts to export performance than product strategy. For fishery particularly shrimp exporting firms, export sales depended on an economic situation of major export market (U.S.) even though the products were competitive compared to other countries. For horticultural firms, quality and safety of the product was the most important factor to export, and Thai products obtained the reputation on this. However, the channel of distribution was also the major strategy since the products were perishable. Finally, executive from livestock firms which were the largest firms among those had discussed about the current situation for livestock exports, particularly poultry. Livestock exporting firms had to adapt the products according to the demand of each major export market. Non-tariff barrier such as sanitary measure was very crucial to export success.

As a whole, it can be concluded that although export product strategy was important for all kinds of agricultural exporting firms, but, it is likely that export performance was influenced by other factors including price competition, economic situation, exchange rate, and etc. Further, firm characteristics including product category and firm's size tended to have influences on export product strategy. Small agricultural exporting firms are likely to employ pricing strategy while some of large firms attempted to adapt the products to serve several different markets.

The insights from discussions with all executives for each of the four product category are described as follows:

5.7.1 Crop and Grain Exporting Firms

Crop and grain include many kinds of products, mainly are rice, rubber and cassava. Rice plays a central role in Thai economies because Thailand is top three rice exporters in the world. Rice is the most important staple food for about one-half of the world's population. Thai rice export shares over than 30% in the world market. Executives from rice exporting firms pointed out that there were three types of export rice; fragrance rice, white rice and glutinous rice. They described that export of Thai rice was affected by several factors including both internal and external factors.

For internal factors, supply and domestic price were major factors. Supply of rice depended on the weather and natural disaster. The domestic price was influenced by government policy, for example, the previous guaranteed price of rice policy, and current pledge program of paddy production policy. The pledge program made the price instability, and directly affected export price. Regarding the firm's resource, rice exporters were varying from very small to very large sizes, and there were many types of exporters: middleman, broker, rice mill, trader and integrated business. They were different in sizes and functions as well as their capabilities for export business. Regarding international market knowledge, executive explained that they acquired information from several channels including internet, government agency (Department of Export Promotion, Department of foreign trade, and etc.), rice exporters association, trade event, trading firm, and rice mill. It is likely that rice exporters believed in product quality of Thai rice, however, the large firms invested in conducting a market survey on consumer taste since each export market required different features of rice. However, executives argued that the product adaptation such as organic rice, packaging adaptation had not becoming the concerned matter for current rice trading in the world market yet.

Regarding external environmental factors, the price competition was very severe in the world market. Thai rice faced strong competition with Vietnamese and Indian rice, particularly for parboiled rice in Africa and Middle East. Thai rice gradually lose market share because of higher price than competitors, due to the reason of appreciation in exchange rate, higher cost of rice field, and government policy that increased domestic price of rice. For the role of government agency support, executives suggested that Thai government should not intervene the price mechanism of domestic market and allowed the market mechanism freely work instead. As a whole, government agency support in terms of short term subsidy to farmers, but no long term policy to encourage exporters to have competitive advantage to achieve more export performance.

5.7.2 Horticultural Exporting Firms

Executives from horticultural firms explained that they had experiences working in the horticultural businesses over than 20 years. Their factories were located in northern part of Thailand, and the suburb of Bangkok. The products have variety sorts of fruits including Mango, Lychee, Lungan, corn, bamboo and other vegetables. The sizes of firms were medium, and they exported over 90% of total sales. Major markets included Japan, the U.S. and EU. They usually export products through importers or brokers more than other channels. The importers in the export market distributed horticultural products to customers through retailers including supermarket and modern trade. Some of Thai horticultural firms exported directly to the supermarket.

When discussing about the firm's resource, many firms established export department or export section under sales department. Vice president/export manager was assigned to responsible for export activities. In addition, sales team was established to handle the international trade. However, the limited budget for support the export activities was the difficulty for exporting firms. For international market knowledge, horticultural firms acquired the information from their own customers,

distributors, government agencies, trade associations and internet. Presently, availability of information from several sources facilitated their exporting businesses.

Executives described that perceived competitive intensity was very high in this sector, due to the fact that the market was monopolistic competition with many sellers and buyers. The small firms who could not achieve cost leadership will not be able to use price competition, and could not survive in the long run. Therefore, it was easier to enter and exit the market. Besides pricing strategy, trust and country image were the critical factors for Thai horticultural export. Executives argued that government should have proactive action to lead promotion strategy so as to create country image for horticultural export. Tariff and non-tariff barriers are obstacles for, particularly small exporting firms. Small firms had difficulties to comply with the import standard or procedure of host country since they had limited budget for investing in quality control and assurance system. The non-tariff barrier was also considered increasing importance as the regulation of host country change overtime.

According to the role of government agency support, executives commented that they should have more export promotion program to encourage the small and medium firms since most SMEs lacked of sufficient budget. In addition, private firms should be invited to participate in the relevant trade negotiation round for solving trade issues with government agency because private firms understand about the issues in real practices more than government officers. Coping with export procedure came across too many government agencies, increasing in time and money wastes for exporting firms. There was no one stop service center to facilitate the agricultural exporting firms.

Finally, when discussing about the export product strategy of horticultural exporting firms. The executives explained that this strategy was stronger in large firms than small firms. Small firms might not have sufficient resources to improve their product quality, quality assurance system or adapt products to the export market.

5.7.3 Fishery Exporting Firms

Fishery includes various sorts of products such as shrimp, tuna, fish, squid, and etc. Among these, shrimp is the most valuable export product. Executives described that Thailand is a major shrimp exporter, account over than 15% of world market. USA, Japan and EU are the major export markets in which exporting to USA. accounted over 50% of total shrimp export. However, export of shrimp to USA. was likely a cycle in each year due to the economic situation, income, education and season. Export of Thai shrimp was going peak during Christmas, New Year, and every sport events, and going decline during winter season.

According to firm's resource, executives described that most of fishery firms usually had strengths in export commitment. They invested in technology improvement, diversification to boiled shrimp and canned shrimp, and quality system implementation. Large firms established export department, subordinates in abroad, had foreign partnership or representative office, and export through trading firms. They acquired international market knowledge from customers, trading firms, partners and internet. The proactive information technology was important for fishery firms so as to cope with the very competitive market.

Executives discussed that fishery products faced severe price competition since major competitors had lower cost of production. Some firms differentiated their products and find new market instead of depending on the US. market. However, tariff and non-tariff barriers were not as much impact as before. Executive argued that the role of government agency was neutral to fishery business since they did not proactive to encourage even though this business brought substantial incomes to the country.

5.7.4 Livestock Exporting Firms

Most exporters in livestock sector were medium to large firms, due to the fact that the characteristics of industry required huge amount of investment such

as poultry or pork exporting firms. Executives from livestock exporting firms argued that not only knowledge and commitment, but also the external environment factors have impact on export product strategy. International market knowledge that firms acquired from the export market and consumer would help firms to foresee the opportunity in the export market. Then, firms could commit their resources and implement export product strategy to serve the market. External environmental and firm's resource factors could be synthesized to achieve the strategy of the firms. However, for smaller firms, lacking of capability to exploit internal and external factors was the obstructions.

Executives described that there was the slow development in the industry. The transition period that shifted to more consumer-oriented product took some times since agricultural sector was typically commodity-based products. In livestock industry, the product adaptation for export market such as processed/ready to eat meal was approximately 10% of total product. The major export markets were Japan, EU and Asia, accordingly.

Discussing about the perceived competitive intensity, executives explained that all livestock products in the world market are good quality with low price. However, the most important factor for firm was not price competition, but cost competitive. The firms that yielded higher productivity in farm with lower cost will win the market. The Thai exporting livestock industry was oligopoly which concentrated among a few large companies which they competed on low cost strategy and channel of distribution. These companies had attempted to improve the productivity of supply, but the difficulty was the farmers who lacked of sufficient resources (budget and technology). In addition, poultry industry was competing with Brazil exporters who had lower cost and sold at lower price, thus this was a disadvantage for Thai livestock in the current market. The tariff and non-tariff barriers are the major impediment for this industry. The current barriers were quota for poultry exporting to EU, health and sanitary and other standards of all export market.

According to the role of government agency support, executives gave an opinion that government did not make much proactive movement in international market. Government agency support is important for export business since dealing with export market needed authorized persons. In addition, government should provide support for promotion strategy in the country level, for example, building Thai brands to create trust and country image for agricultural export products. This should be the major role of Department of Export Promotion (DEP). Finally, government should try to expand to some new markets so that exporters could find more opportunity to sell their products.

5.8 Summary

This chapter describes the data analysis and hypotheses testing of the study. Data analysis begins with the data preparation procedure, followed by the business profile which is summarized to present the overview of four product categories of exporting firms. The descriptive statistics of all variables in the model are analyzed including normality test of data, mean statistics of constructs, control variable test and correlation statistics. Next, the quality of the research instruments including reliability, content validity and construct validity are examined, and structural model fits to the data. The eleven hypotheses are tested and the researcher found seven hypotheses that cannot be rejected and four rejected hypotheses. The coefficient of determination (R^2) and the direct, indirect and total effects of six constructs on export performance are examined. Finally, the data from an in-depth interview with exporting executives across four groups of exporting firms are analyzed to justify the results of the determinants on export performance of agricultural firms in Thailand.

Chapter VI

Conclusions, Discussions and Recommendations

This chapter provides the conclusions, discussions and recommendations from the current research. The discussions of the research findings are provided and these give some insights into the completed explanation of the determinants on export performance of agricultural firms in Thailand. The theoretical, managerial and policy maker contributions are subsequently described and recommended. Lastly, the limitations and suggestions for the future research are provided.

6.1 Conclusions

This research is the first effort that aims to develop a comprehensive model and simultaneously examine the firm-level factors as the determinants on export performance of agricultural exporting firms in Thailand. Empirical data was collected to examine the impacts of factors concerning the firm's resource, external environment and export product strategy upon the export performance of four types of agricultural exporting firms.

The proposed model is based on the resource-based view (Barney, 1991), industrial organization theory (Cavusgil and Zou, 1994), internationalization process theory (Johanson and Vahl, 1977), and consumer perspective on agricultural exports. There are seven constructs in the model: five exogenous variables (export commitment (COMM), international market knowledge (KNOW), perceived competitive intensity (COMP), tariff and non-tariff barriers (BARR) and government agency support (GOVT), and two endogenous variables (export product strategy (PROD) and export performance (EXPP)).

Agricultural exporting firms in this research are from Thailand and are classified into four product categories: crop and grain, horticulture, fishery, and livestock and daily products. A census method was used to collect the data by mailing 1,585 questionnaire packages to the firms in the population. The questionnaire was reviewed by a scholar and agricultural executives/export managers who are working in agricultural exporting firms across the four product categories. Finally, a total of 369 respondents was obtained, meaning the effective response rate was 23.28%.

SPSS for Windows version 15.0 was used to analyze descriptive statistics and conduct the reliability test. A Structural Equation Model (SEM) was formed and LISREL version 8.52 was used for confirmatory factor analysis (CFA) of the constructs, and for assessment of the structural model to test the eleven hypotheses proposed in the model.

Figure 6.1 graphically presents the overall results of all eleven hypotheses tested in the proposed model. The results show that perceived competitive intensity (COMP) is the most influential variable upon export performance, with the standardized coefficient equal to -0.43. The negative impact means exporters encountered the severe competition in the market which may reduce their export performance. Thus, it confirms the proposed hypothesis that COMP has a negative effect on the export performance of agricultural firms. In addition, international market knowledge (KNOW) and government agency support (GOVT) both have the same positive impacts upon export performance with standardized coefficients of 0.19. The standardized coefficient of export commitment (COMM) upon export performance is 0.16. The findings confirm the proposed hypotheses that export commitment (COMM), international market knowledge (KNOW) and government agency support (GOVT) enhance the export performance of agricultural firms.

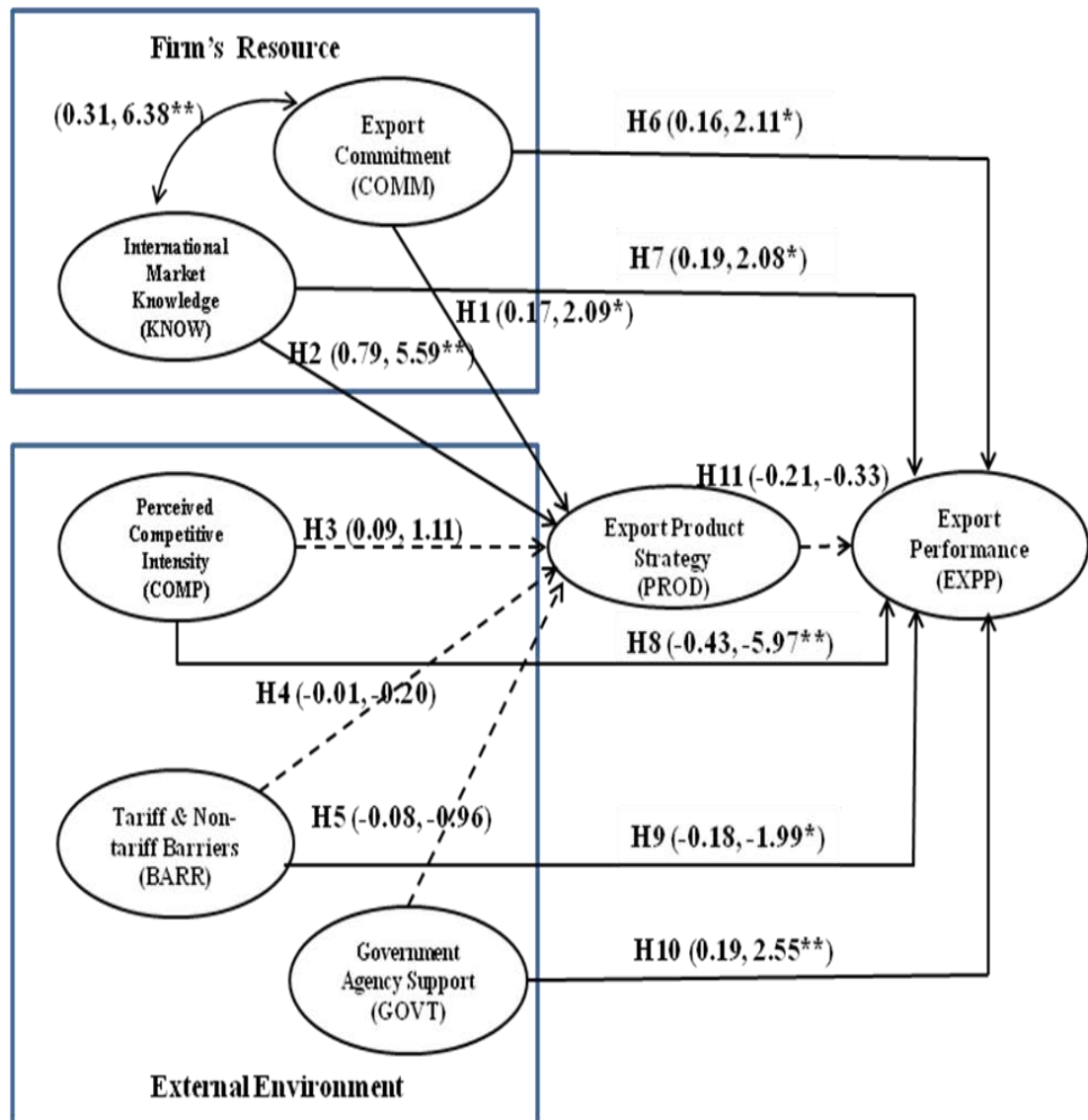
However, tariff and non-tariff barriers (BARR) have a negative impact on export performance with a standardized coefficient of -0.18. The minus sign implies

that tariff and non-tariff barriers of host countries can pose threats to foreign exporters and have some negative impacts upon a firm's export performance. This finding confirms the proposed hypothesis that BARR has the negative effect upon export performance.

Export product strategy (PROD) is influenced by a firm's resource factors: export commitment (COMM) and international market knowledge (KNOW). The standardized coefficient of COMM is 0.17 and the standardized coefficient of KNOW is 0.79. This means that KNOW has strongest positive impact on export product strategy. The results also show that three external environmental factors: perceived competitive intensity (COMP), tariff and non-tariff barriers (BARR), and government agency support (GOVT) do not significantly affect export product strategy. The minus sign of BARR upon PROD means exporters have difficulties to comply with tariff and non-tariff barriers in host countries, thus this has a negative impact upon their product strategies. In addition, the negative effect of GOVT upon PROD means the government agency support might not be sufficient for agricultural firms. Therefore, the firms could not gain an advantage to their product strategy.

Moreover, the standardized coefficient of the relationship between PROD and EXPP is -0.11, which shows a negative relationship between export product strategy and export performance. This negative impact is not statistically significant. This means the agricultural exporting firms may serve markets with a convergence in product strategy. Agricultural products are homogenous in nature, thus, most exporters serve markets by using merely export product strategies. However, their customers might not sufficiently distinguish the differences among agricultural products. There seems not to have sufficient matching between the export product strategy and consumer perception. The figure in Table 5.11 shows that respondents believed they have high export product strategy (average score is 4.09), but average score for export performance is only 3.18. Therefore, product strategy could not lead to enhancing the export performance of firms. All of these findings will be discussed in the next section.

Figure 6.1
The Results of Eleven Hypotheses Testing



Note: Numbers in parentheses represent the standardized beta coefficient and t-value

** Significant at the 0.01 level

* Significant at the 0.05 level

—————→ means significant impact

- - - - -→ means non-significant impact

6.2 Discussions

This research discovered several interesting findings about the determinants of export performance for agricultural exporting firms in Thailand. Results from both statistical results and in-depth executive interviews are synthesized to provide an overview picture of the determinants on export performance of agricultural firms in Thailand. These are described below:

6.2.1 The Impacts of Firm's Resource and External Environmental Factors on Export Product Strategy

The statistical evidences from the data analysis reveal that perceived competitive intensity (COMP), tariff and non-tariff barriers (BARR) and government agency support (GOVT) are not found to have positive impacts upon export product strategy. While a firm's resource factors; export commitment (COMM) and international market knowledge (KNOW), are found to have positive effects on export product strategy.

Figure 6.2 shows a plausible explanation for the insignificant effects of COMP, BARR and GOVT on export product strategy. It is clear that the business that wants to be a market-driven business, must have both inside-out and outside-in perspectives (Day, 1994). According to Day (1994), a firm's capabilities can be classified into three categories: inside-out, outside-in and spanning, depending on business orientation and focus strategy. It is likely that most agricultural exporting firms are internally oriented firms rather than firms that focus on external market considerations. Knudsen and Madsen (2002) further explained that the resource-based perspective is considered an "inside-out process" due to the fact that companies will manage the export strategy according to what they are capable of doing, rather than by the external requirements they have to fulfill. However, this perspective might make the firms neglect an explicit view of the competing market. As a result,

firms may not sufficiently emphasize the external environment as a guide for developing their export strategy.

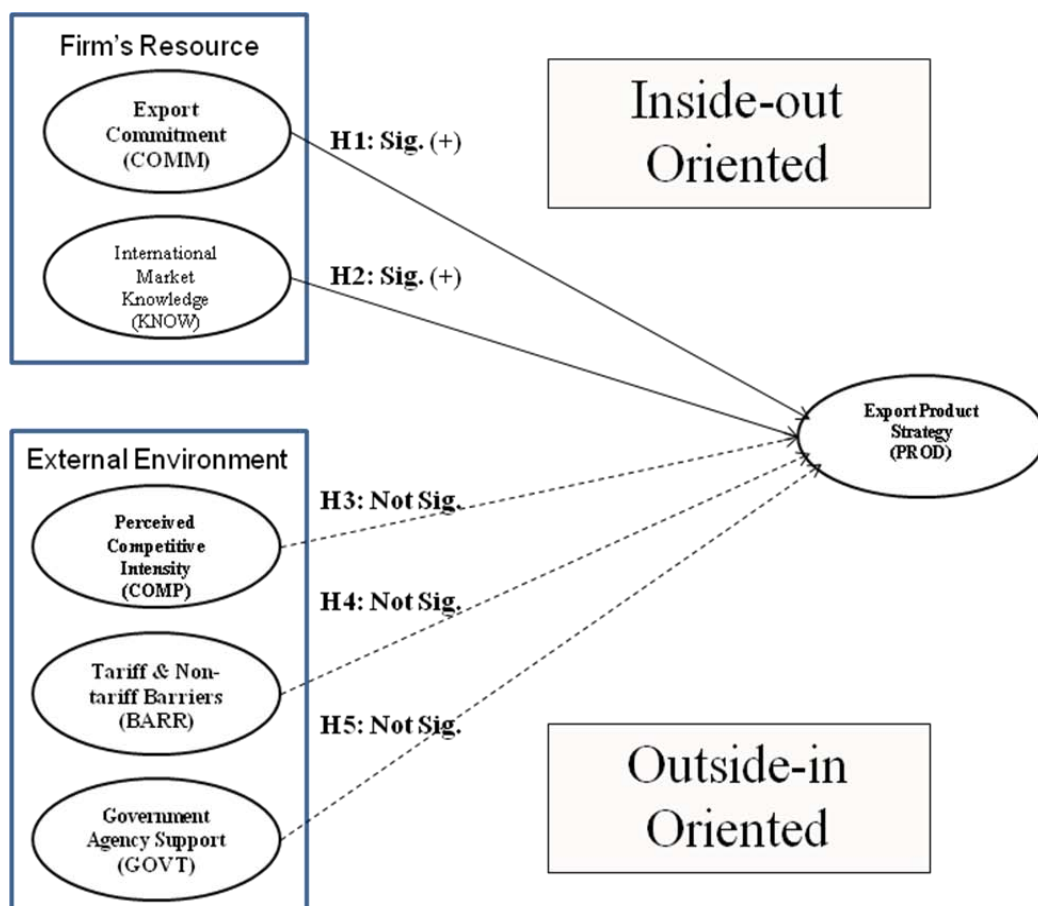
Most Thai agricultural exporting firms conventionally produce low-costs, custom products on a timely basis. It is likely that most firms could not enable their businesses to compete in the world market by anticipating market requirements ahead of competitors. Therefore, their export product strategy might not be strongly formulated and executed. If the agricultural exporting firms cannot seize opportunities in the market from customers, competitors, or other factors, they would not be able to compete in the international market. The intensity of competition in the export market does not force firms in Thailand to seek export product strategy to gain a competitive advantage over rivals. Statistical evidence shows exporting firms being inside-out oriented rather than outside-in oriented.

In addition, tariff and non-tariff barriers of host countries may create problems for small agricultural exporting firms who lack strategy and are not able to meet the challenges of competition. As a result, external environmental factors do not explicitly encourage exporting firms to fully formulate product strategy, such as for quality and safety, or adapt to the context in which they are operating. This result is consistent with Bianchi and Garcia (2007) who argued that agricultural exporting firms in developing countries that cannot successfully implement strategies of differentiation because they heavily depend on traditional comparative advantages.

Another interesting point is the role of government agency (GOVT) in supporting the export product strategy of firms. The results of in-depth interviews show that government agency support may not be congruent with the needs of agricultural exporting firms. For example, the Department of Export Promotion (DEP) announces to encourage the export of Thai organics products (vegetables, fruits, rice, processed foods, and supplements) to China (DEP, 2012). Ministry of Commerce in 2011 claimed that Thailand will become an organics hub of ASEAN in three sectors: foods, non-foods and beauty service. However, there is not sufficient technical assistance or budget for farmers to do the R&D for products or to help them

seek expansion in the international market. In addition, the existing government support programs for agricultural exporting firms unfortunately do not attract enough firms to actively participate (Kantipipat, 2009). Agricultural exporting executives said that participating in official trade events requires large amount of time and budget. However, the government's programs do not generate as much benefit for Thai agricultural exporting firms as they ought.

Figure 6.2
The Impacts of Firm's Resource and External Environmental Factors on
Export Product Strategy



6.2.2 The Determinants of Export Performance

This current research substantiates the relationship between the determinants of export performance for agricultural firms in Thailand. The results from the eleven hypotheses tested reveal that there are five factors in the model that have relationship with export performance (Figure 6.3). The details for each variable are discussed below:

- **Export Commitment**

Export commitment is shown to have a positive impact on the export performance of agricultural firms in Thailand. Export commitment is the general willingness of top executives to allocate the required financial and non-financial resources to export-related activities. If the business provides strong commitment, it should increase the firm's ability to compete in the world market (Rock and Ahmed, 2008). Some small agricultural firms may not establish a specific export department. The export division is usually attached to the logistics or sales department and there is an export manager to handle the activities.

Budget and facilities are also critical for agricultural exporting business. Some agricultural exporting managers indicated they had a sufficient amount of budget, while many small horticultural exporters needed more and better shipping facilities for the outbound process. They can hire a specialized broker to handle this operation. Therefore, export commitment is essential for successful agricultural exporting firms in Thailand.

- **International Market Knowledge**

International market knowledge is also shown to have positive impact upon the export performance of agricultural firms in Thailand. Experiential knowledge is a crucial factor to become successful in exporting (Crick, Chaudhry and

Batstone, 2000). Further, knowledge from acquiring information is increasingly important to understanding the situation in the market, and leads to better performance (Roy and Thorat, 2008). Some small agricultural exporting firms indicated that they hire external specialists to deal with export activities at the initial stage and develop in-house knowledge at a later stage. A firm's international market knowledge is obtained over the years they engaged in export activities. The acquired knowledge affects the ability of firms to compete in the world market due to the learning curve as suggested by Johanson and Vahlne (1990). Ruenrom and Unahanandh (2005) also pointed out the need for packaged food exporting firms to have better market knowledge and information when exporting their products to foreign markets.

It is obvious that market knowledge and information from documents, training, conferences, seminars, marketing research, and the internet can help agricultural exporting firms to forecast trends and understand the requirements of the market, reduce uncertainties pertaining to export activities, and improve the skills and knowledge related to foreign markets. It will enable exporters to be aware of the opportunities to make more sales and achieve better performance.

- **Perceived Competitive Intensity**

A firm's perceived competitive intensity is the external environmental factor which is found to have a negative impact on export performance. Since most of the agricultural exporting firms are homogenous in nature, they use competitive pricing strategy as a weapon, which can reduce their profitability (Ates and Sen, 1998). The agricultural exporting firms typically find intense competition in the export market. Price competition is likely to be the most common strategy while product, place, and promotion are used less. The recent unfavorable economic situation in the world market, with higher labor and production costs, and natural disasters, has led to fluctuations and uncompetitive prices for

agricultural exporting firms. Consequently, perceived competitive intensity is negatively associated with the export performance of agricultural firms in Thailand.

- **Tariff and Non-tariff Barriers**

Tariff and Non-tariff barriers are the external environmental factor which shows a negative relationship with export performance. Current trade barriers include both tariffs and quotas, and non-tariff barriers such as safety and health restriction and environmental concerns become an obstacle to export activities. These barriers could reduce export performance if agricultural firms cannot comply with the legislation (Chadee, 2002; Mavrogiannis et al., 2008).

Results from an in-depth interview show that most of the firms in the crop and grain industry are not affected by tariff and non-tariff barriers. However, some horticultural exporters experience losses due to the failure to meet the health and safety requirements of the EU and Japan. For fishery firms, the major export market is the USA, which uses non-tariff barriers such as Anti-Dumping and Continuous Bond (Chaweesuk et.al., 2010) in order to protect the domestic producers. Thai fishery firms are usually affected since this will increase cost. Thai firms are not capable of competing with lower-cost fishery firms from China, Indonesia and Ecuador. For livestock firms, the strong legislation regarding infectious diseases (avian influenza and foot and mouth disease) is the most severe non-tariff barrier that Thai exporting firms must comply with in order to make sales in international markets.

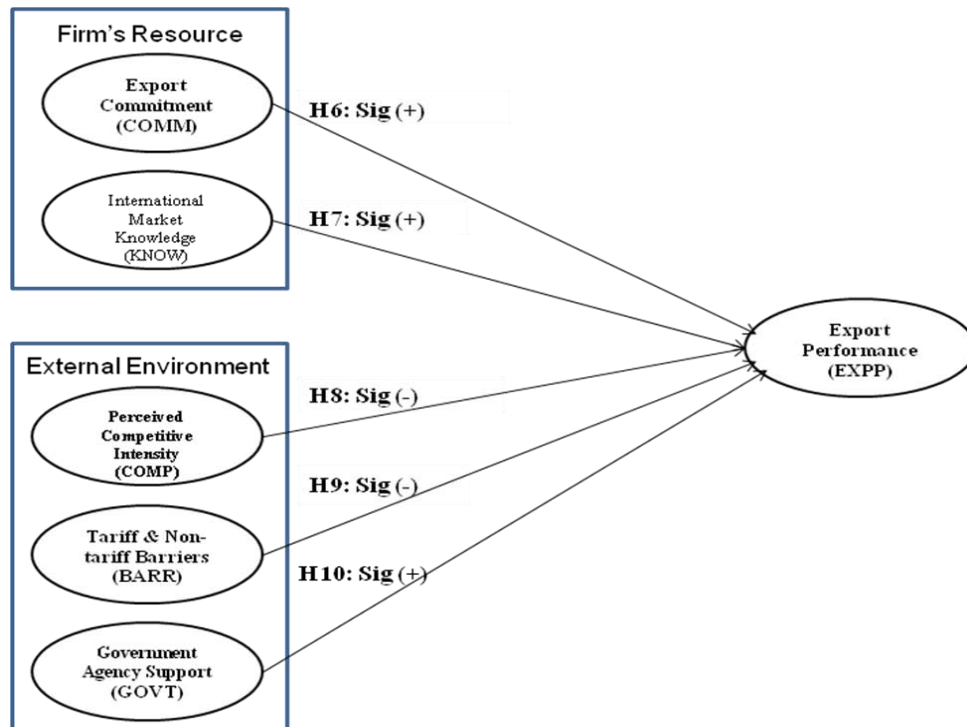
Therefore, if agricultural exporting firms are not proactive in overcoming these tariff and non-tariff barriers, their performance will be downgraded and there will be negative impacts upon export performance.

- **Government Agency Support**

Government agency support is the external environmental factor which has a positive impact on the export performance of agricultural firms. The role of government agency support is critical in facilitating export performance (Ruenrom and Unahanandh, 2005; Seringhaus and Rosson, 1990). Government policies can assist exporters to overcome trade barriers by providing information about overseas markets and host countries and by promoting agricultural firms and products through export assistance program (Van-Voorthuizen, Duval and O'Rourke, 2001).

Government agency support for Thai agricultural exporting firms is rather fragmented and spread over a number of agencies and there is not much integration of their operations. Several departments are under many ministries, such as the Ministry of Agriculture and Cooperatives, Ministry of Commerce, Ministry of Finance, and the Ministry of Public Health. All of these are getting involved in encouraging and promoting Thai agricultural exports. Their objectives are to provide information about trade opportunities in new markets for agricultural exports, to negotiate on international trade issues, to promote agricultural export products through trade shows and events, and so on. In conclusion, government agency support is found to have a positive influence on the export performance of agricultural firms in Thailand.

Figure 6.3
The Impacts of Five Factors upon Export Performance



6.2.3 The Impact of Export Product Strategy upon Export Performance

Based on the results of hypotheses testing, export product strategy (PROD) is not found to have statistically significant impact on the export performance of agricultural exporting firms (Figure 6.4). There are two plausible explanations for this result. The first explanation is the state-of-the-art of Thai agricultural exporting firms. The second explanation is the impacts of other macro-economic environmental factors on export performance. These two explanations are described below:

Regarding the first explanation, state-of-the-art refers to the highest level of development (a device, procedure, process, technique, or scientific field)

achieved at any particular time as a result of the latest methodologies employed (Jacoby, 1978). As mentioned before, Thai agricultural exporting firms have not adequately developed outside-in or external-oriented capability in export product strategy. Therefore, they can not execute the appropriate and timely responses to changes in the environment. Most agricultural firms in Thailand do not have sufficient ability to respond fully to changes in the external environment by developing and implementing appropriate product strategies. According to a study by Rock and Ahmed (2008), there is a wide gap between export marketing for manufactured products and agricultural products, while the latter have less proactive and innovative strategies. Moreover, Bianchi and Garcia (2007) addressed the possible reasons behind the inability of agricultural exporting firms from developing countries to successfully implemented strategies of differentiation instead of a low-cost strategy. The reasons included deficiencies in financial and technology skills, trust in the excess of resource advantage to inhibit conditions of innovation and competitiveness, and some specific barriers due to international distance.

Moreover, the fact that agricultural products are quite homogenous in nature, thus, most exporters serve markets by using merely export product strategies. However, their customers might not sufficiently distinguish the differences among agricultural products. There seems not to have sufficient matching between the export product strategy and consumer perception. Based on the qualitative analysis (an in-depth interview with export executives), they most likely use price as the basis for decision making. Therefore, the export product strategy shows no correlation with the export performance of agricultural exporting firms. This finding is consistent with a study by Tantong et. al. (2010) who found quality adaptation in Thai manufacturing firms appears not to be associated with export performance.

The executive in-depth interviews revealed that most livestock firms are rather large in scale with integrated processes. All livestock exporting firms need to have passed the quarantined process of the Department of Livestock Development (HACCP regulation, 2004). Livestock firms more usually face the problem of

outbreaks than other sectors, particularly over past decades; therefore, they are likely to adapt their product features following the host countries' regulations. As a result, Thai livestock enjoys a growing reputation in terms of quality and animal welfare and safety standards more so than other sectors.

One factor that is worth discussing, even though the analysis did not show any significant impact, is small firms that export their products abroad. There are a lot of small agricultural exporting firms in Thailand. In the data obtained for this research, there were 181 small firms out of 369 total firms. Small firms may not be able to formulate effective export product strategy. For example, small firms may not be able to afford to segment markets based on product quality or adaptation (Tantong et. al., 2010). Being a small firm is a deterrent to success in exporting because larger exporters possess more financial and human resources for obtaining economies of scale so that they have lower risk in dealing with foreign markets and operations (Aaby and Slater, 1989; Cavusgil and Zou, 1994). Having considered this fact, small exporters may not have the strategy to continuously improve quality or adapt products to meet the ever-changing challenges in export market. Ates and Sen (1998) said that the relationship between numbers of staff and the export performance of agricultural exporting firms was correlated. Export product strategy might have some influences on export performance for large firms because they have better resources. Unfortunately, this is not happening for small firms in Thailand as the study reveals no relationship between firms' product strategy and the export performance.

Regarding the second explanation which is the extensive impacts of economic and political situation in home and host countries, exchange rate fluctuation, demand and supply of products in the world market, and agricultural product prices in the world market, the summary from in-depth interviews with executives shows the importance of pricing strategy as a competitive tool for agricultural exporting firms in developing countries. However, most partners use trust and country image to guarantee the products. The study of Tooksoon and

Mohamad (2008) found that export product capability was not associated with export sales growth for Thai agro-based exporting firms. In this regards, several macro-economic variables could have stronger influences on the export performance of Thai agricultural exporting firms than their own product strategy. The following examples show some facts about factors affecting export performance.

- Rice exports face severe price competition from major competitors such as India and Vietnam which have lower costs of production. The export performance of Thai rice exporting firms is affected by supply and demand in the world market, which fluctuated due to natural disasters, government policy, and exchange rates (Thai rice exporters association, 2012).

- Rubber exports have grown larger in both quantity and value during recent years (Office of Agricultural Economics, 2012). Demand for rubber export is growing as a result of higher demands from automotive and rubber glove industries in the world market. The higher price of rubber increase income for exporters. However, it is largely affected by Baht appreciation (Office of Agricultural Economics, 2012).

- Horticulture exports go to major markets such as China, Hong Kong and Japan. They have expanded because of the variety of products being available to export all year round. However, weather conditions, inefficient distribution channels, and a higher cost of production than major competitors such as Vietnam, China and the Philippines impede the export growth of horticulture products in Thailand (Department of Export Promotion, 2012).

- Fishery exports, particularly shrimp, have been increasing for many years. One of the reasons is the major shrimp exporters (Indonesia, Vietnam and China) are facing infectious diseases, natural disasters, and weather instability.

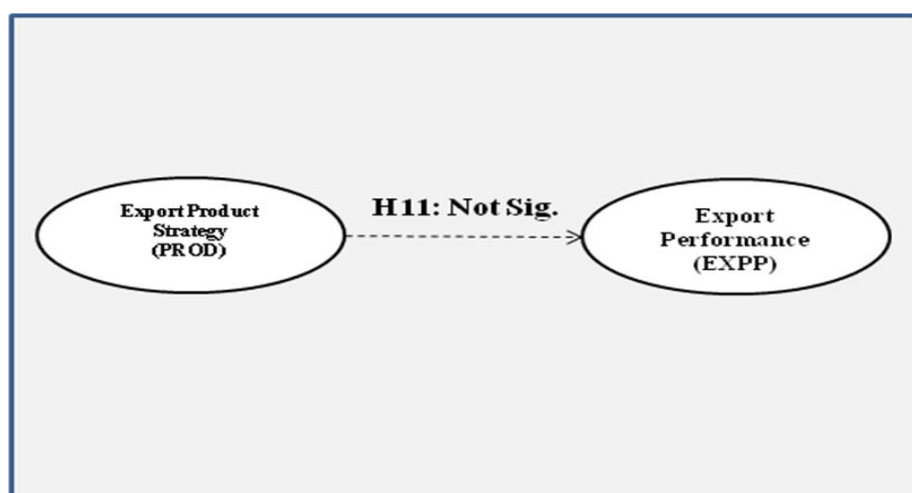
The decrease of shrimp supplies in the world market makes the price of shrimp higher which benefits Thai shrimp exporters (Thai Shrimp Association, 2012).

- Livestock exports, particularly poultry, have a high potential to be competitive even though Thai chicken production costs are higher than those of China and the USA. The economic situation in major export markets (EU and Japan) strongly encourages more consumption of chicken. Therefore, Thailand's poultry exports remain promising despite Thai Baht appreciation (Department of Export Promotion, 2012).

From these examples, it can be concluded that the export performance of agricultural exporting firms is affected by several factors related to macro-economic and political conditions both in Thailand and in major export markets. Table 5.28 in Chapter 5 presents the coefficient of determination (R^2) and shows that six factors can explain a relatively small portion of variance (30 percent) of export performance. Therefore, the second explanation could be consistent with the low R^2 in that there are some other variables besides export product strategy which could highly affect the export performance of agricultural exporting firms in Thailand.

Figure 6.4

The Impact of Export Product Strategy upon Export Performance



6.3 Contributions

6.3.1 Theoretical Contributions

The empirical results of this research extend the understanding of the determinants of export performance of agricultural firms in Thailand. Previous research on the export performance of the agricultural sector is very limited, especially at the firm level (Crick and Chaudhry, 2000). Exporting of agricultural products has long been recognized as a government policy issue and related to international trade from an economic point of view (Mili and Zuniga, 2002; Yeung, Hobbs and Kerr, 2007). However, some studies have looked at agricultural product exporting with a management focus at the firm level (Aksoy and Kaynak, 1994; Bianchi and Garcia, 2007). Most of these studies employed qualitative analysis and simple statistical methodology.

This research, to the best of the researcher's knowledge, is the first study that comprehensively and systematically examines the firm-level factors, including firm's resource factor, external environmental factor, and export product strategy, as the antecedents of export performance of agricultural exporting firms across four types of agricultural exporting firms in Thailand. The contributions for marketing at the theoretical level are explained below:

The current research can extend the body of knowledge in export performance by developing a comprehensive and causal model to investigate the determinants that might enhance the export performance of agricultural exporting firms in Thailand based on a firm-level analysis. Previous research was conducted in more developed and highly industrialized countries usually reports data from the manufactured products sector (Crick and Chaudhry, 2000), not the agricultural sector. In addition, there has been limited study of the export performance of agricultural sector at the firm level because the majority of previous research was based on the discipline of agricultural economics, not marketing (Crick and Chaudhry, 2000;

Esterhuizen, van Rooyen and D'Haese, 2008; Mili and Zuniga, 2002; Yeung, Hobbs and Kerr, 2007).

As Sousa et al. (2008) suggested, future research should focus on a single industry study and, appropriate variables related to the specific characteristics of that particular exporting industry might be found. Thus, this research is the first to develop a model of the determinants on export performance of agricultural firms in Thailand and fills a gap in the research by examining the impacts of firm-level factors rather than macro-economic factors. Further, this study employs multivariate statistical analysis (Structural Equation Modeling) to investigate the impacts of export commitment, international market knowledge, perceived competitive intensity, tariff and non-tariff barriers, government agency support, and export product strategy, which is the mediator in the model. A total of 369 agricultural exporting firms was surveyed across all four product categories: crop and grain, horticulture, fishery, and livestock and daily products. The factors that were expected to be the determinants of export performance of agricultural firms in Thailand based on firm level analysis are export commitment, international market knowledge, perceived competitive intensity, tariff and non-tariff barriers, and government agency support. These factors have never been systematically examined in any research before. Moreover, export product strategy which acts as a mediator between those five factors and export performance is also examined in the model.

The empirical results show that all five factors are associated with the export performance of agricultural firms. However, export product strategy which is a mediator does not have impact on export performance. Based on the theoretical background of this research, enhancement of the knowledge in resource-based view theory is supported by the findings of this study. Export commitment and international market knowledge are found to have positive impacts on export performance and export product strategy of agricultural firms. The findings are consistent with the results of previous research that a firm's resource and capability can help a firm to gain competitive advantage in export markets (Morgan et al., 2004;

Zou et al., 2003). The firms with greater resources and commitment can be more proactive in their strategic approach to exporting which could lead to better performance (O’Cass and Julian, 2003).

The results of this research supports the study by Rock and Ahmed (2008) that exporters are advised to have a long-term commitment to export markets and secure adequate financing for their export activities. The international market knowledge construct is newly developed in this research to incorporate experience and information into a single construct. The findings from this research also support the highly significant impact of international market knowledge on export product strategy and export performance. The finding is congruent with the previous studies of Bianchi and Garcia (2007) and Kantipipat (2009). Thus, the new findings enhance the body of knowledge of the research on the export performance of agricultural firms.

Another theoretical contribution of this research is the Industrial Organization Theory or Structure-Conduct-Performance. Based on the theory, external factors (industry and export market characteristics) and some internal factors (firm and product characteristics) have only indirect effects on export performance through their influences on export marketing strategy (Cavusgil and Zou, 1994; Zou and Stan, 1998). These research findings, however, do not encourage the use of Industrial Organization Theory in studying agricultural exporting performance, particularly for Thailand. The findings reveal that external environmental factors do not indirectly affect the export performance of agricultural firms through the mediating role of export product strategy.

The explanation is the specific characteristic of agricultural products as a commodity or natural-resource based export which is differentiated from manufactured products, as well as the current state-of-the-art nature of Thai agricultural exporting firms. Most agricultural exporting firms in Thailand do not emphasize external conditions as a guide for developing their strategies due to the fact

that most Thai agricultural exporting firms produce low-costs, custom products on a timely basis and use price competition as the main strategy. Moreover, small agricultural exporting firms are not capable of responding fully and efficiently to external environmental changes by developing and implementing appropriate exporting strategies, particularly, product strategy since it requires firms to spend more. Thus, small firms are less likely to carry out export planning and strategy (Rock and Ahmed, 2008). If the exporting firms cannot seize the opportunities in the market, it will be more difficult for them to develop any strategies to achieve export performance. (Knudsen and Madsen, 2002).

Thus, it can be concluded that the Industrial Organization Theory does not fully support the export performance model of agricultural firms in Thailand for the particular scope of this study. This is because this current research investigates the mediating role of export product strategy only. If any researcher would like to understand the role of Industrial Organization Theory in contributing to agricultural export performance, a more comprehensive model could be developed.

Regarding Internationalization Process Theory (Johanson and Vahlne (1977), this research substantiates the theoretical link between international market knowledge and the export performance of agricultural exporting firms in Thailand. According to Johanson and Weidersheim-Paul (1975) and Johanson and Vahlne (1977), who developed this theory, it is a continuous process that takes place in firms entering foreign markets. Market knowledge drives the decision to commit more resources to export, and the strong commitment enables firm to continue gathering knowledge related to their businesses to improve their business performances.

A relationship between export commitment and international market knowledge was found during the in-depth interviews with executives. All agricultural exporting executives said that if they could gain more knowledge about a market, more resources and stronger export commitment, these internal factors would help them achieve a competitive advantage in the world market.

The link between export commitment and international market knowledge is statistically found in this research (Figure 5.8). These two variables have a positive relationship with highly significant result. This evidence supports the proposition developed by Yip, Biscarri and Monti (2000). It is worthwhile to mention that this relationship has never been successfully quantified in any studies of the export performance of agricultural products before.

Finally, the findings from this research support the traditional perspective of agricultural marketing. Opposing hypothesis H11, a non-significant relationship between export product strategy and export performance is found. The plausible explanation is the state-of-the-art nature of Thai agricultural exporting firms which normally use cost leadership strategy instead of product differentiation strategy as a source of competitive advantage (Porter, 1990). However, the in-depth interviews provided some other interesting explanations. Livestock is the only sector where all firms need to pass the quarantine process of a government agency since they face the problem of outbreaks more than other sectors. Therefore, livestock firms are likely to adapt their product features following the host countries' requirements. In addition, small exporters may not have the strategy to continuously improve quality and adapt products to meet the ever-changing challenges in the export market. The last explanation is the typical factors that affect the export performance are the economic and political situation, exchange rates, demand and supply, and pricing in the world market.

These findings are congruent with the study of Tooksoon and Mohamad (2008) that product capabilities do not have an impact on export sales growth. It means that agricultural marketing has not changed the perspective on international competitiveness from the traditional concept that firms from developing countries have traditionally had comparative cost advantages in excess of resources advantage and low cost labor, especially for commodities and other agricultural products (Aksoy and Kaynak, 1994).

6.3.2 Managerial Contributions

Since there has been no formal database of agricultural exporting firms in Thailand, the researcher developed the database of these exporting firms for a total of 1,585 companies. Therefore, the findings from this research can provide solid guidelines to export managers who are responsible for export activities in their companies. The managerial contributions can be presented in two parts according to the findings as follows.

1) The determinants on export performance of agricultural firms.

The empirical results pinpoint the key factors of exporting firms: export commitment and international market knowledge. Regarding the export commitment, export managers should invest in human resources, budgets and facilities for export activities since these resources will help them to achieve the competitive advantage in the world market. Agricultural exporting firms should establish export department or export section and assign export executives to take care and supervise their people to do export activities.

In addition, international market knowledge is the most valuable resource for exporting firms based on the research findings. Export managers can acquire marketing knowledge from their own experiences and information in the international market. Experiences can be obtained from past or the existing export activities. Export managers must have most current information about the export procedures, customers, competitors and prospective markets. Moreover, they should have knowledge about the economy, politics, rules and regulations related to agricultural products in their targeted countries. Marketing research should be occasionally conducted and distributed the results to the people involved so they can gain better information about the situation or any concerned issues. Executives should make provide staffs aware of the current performance so as to motivate staffs

and prepare for any changes in the future. Further, the in-house training is a good method to train the staffs to learn all the know-how for their businesses.

The trade events or exhibitions held by the government agencies or institutions are considered very useful sources of information for exporters. This channel will encourage Thai agricultural exporting firms to gain useful information from international markets. Agricultural exporting firms should get closer to government agencies because they can gain some assistance from them. For example, information sharing, trade negotiation or market expansion in some regions.

However, small agricultural exporting firms may have limited resources. Most agricultural exporting executives said that some trade associations can provide facilities and resource sharing to small firms. For example, the vegetable and fruit exporters of small firms do not have sufficient capability for logistics and shipping procedure. Therefore, the Vegetable and Fruit Exporters Association aims to facilitate its members and provide necessary information on demand and supply and market price of horticulture products. Consequently, small farmers can gain benefits from participating in the relevant trade associations.

Regarding external environmental factors, the most critical factor for Thai agricultural exporting firms based on the research findings is perceived competitive intensity in the export market. The degree of competitive intensity depends on manager's perception of the environmental impacts in the foreign markets. Since agricultural products are commodities with homogenous in nature, there is a severe price competition among suppliers in the world market which can reduce a firm's profitability. Export managers need to be actively aware of the situation in the existing market and search for the new opportunity in a new potential market.

Tariff and non-tariff barriers are found to be major impediments for agricultural exporting businesses. There is a decrease in tariffs under multilateral and bilateral trade agreement. Non-tariff barriers are becoming increasingly important for

agricultural exports. Technical barriers including sanitary regulations, quality and safety standards are operated and varied from one country to another. Therefore, export managers should overcome those barriers by studying the requirements, strictly complying with the legislations and cooperating with the government agencies if some trade issues occur.

2) Export product strategy of agricultural exporting firms

It is interesting to find that the export product strategy of agricultural exporting firms appears not to be associated with the export performance. The plausible explanation for this result could be that export executives may believe that their companies implement export product strategy in order to differentiate their products. However, the fact that agricultural products are quite homogenous in nature, thus, most exporters serve markets by using merely export product strategies which product quality, product safety and product adaptation. However, their customers might not sufficiently distinguish the differences among agricultural products. There seems not to have sufficient matching between the export product strategy and consumer perception. Based on the qualitative analysis (an in-depth interview with export executives), they most likely use price as the basis for decision making. Therefore, the export product strategy shows no correlation with the export performance of agricultural exporting firms. This finding is consistent with a study by Tantong et. al. (2010) who found quality adaptation in Thai manufacturing firms appears not to be associated with export performance.

One of the contributions for this evidence is using product strategy alone may not sufficient to cope with the world market. In fact, marketing mix strategy and product positioning (Kotler, 1997) as well as brand equity (Aaker, 1992) are important for the business to have sustainable growth in the future.

6.3.3 Policy Maker Contributions

The role of government agencies is important in the enhancing export performance of the food industry (Mavrogiannis et al., 2008). However, there are some differences between manufactured products and agricultural products. The different characteristics of agricultural exporting firms may necessitate different export promotion strategy from the government. It is apparent that most agricultural exporting firms are small, so they have some difficulties in approaching export assistance programs. For example, small firms have less opportunity to participate in the international trade exhibition because the larger firms occupy the limited space. Since different firms' characteristics will need different supporting strategies, the Department of Export Promotion (DEP) should develop the government assistance program based on firms' characteristics, particularly product category and size. Moreover, the DEP should evaluate the subsequent benefits that firms actually gain from export assistance programs. Therefore, the DEP will be able to adjust any export assistance programs to fit the requirements of the agricultural exporting firms.

Since international market knowledge is critical to the success of agricultural exporting firms, relevant government agencies should provide up-to-date information on export markets which is easy to access, or provide a one-stop information service center. Currently, there are too many sources of information that the exporters have to approach for a particular issue. An information service center could provide the necessary information and statistics that agricultural exporting firms require for their businesses. The necessary information includes trade opportunities in the new markets, restrictions in export market, demand and supply, macro-economic data, Free Trade Agreement (FTA) data, and other information.

Further, the government should encourage the role of trade associations or private institutions that are related to agricultural exports. Small firms can access some facilities and supports through trade associations that they become members. In addition, the trade associations, acting as the representative for all exporters, can

cooperate with government agencies in case of trade issues in the export market. The results from in-depth interviews with executives confirm that the role of trade association is important to small exporting firms since they can facilitate resource sharing among the members.

Finally, it should be noted that agricultural exporting executives said that the government should establish a long-term strategy to encourage agricultural exports of Thailand instead of a short term strategy to subsidize domestic producers. Since consumers in the world market demand quality products at a low price, exporters who have lower costs of supply will win in the market. As a result, the government should focus on “cost competitive” not “price competitive” strategies. The best strategy is to encourage producers to increase productivity or yield of production and decrease the cost of production. If Thai agricultural exporting firms have a cost advantage, they will be able to successfully compete in the world market. The more product exports, the more income generated to the country and to the more benefit for domestic producers. In addition, effective promotional strategy at the country level must be implemented to create trust and positive image of Thai agricultural products. The development of a national brand for uniqueness could strengthen the competitive position of Thai agricultural exporting firms in the world market.

6.4 Limitations of the Study

Although this study reveals a number of interesting findings, there are some limitations which are discussed below:

- 1) The total population in this study is actually unknown. The researcher developed a database of agricultural exporting firms in Thailand comprising a total of 1,585 companies. This study is the first initiative to study the determinants on export performance of agricultural firms. Even though the researcher made great attempts to

collect as much data as possible, there were 369 respondents, an effective response rate of 23.28%. It would have been better to have a larger sample size.

2) The data was collected from four product categories: crop and grain, horticulture, fishery, and livestock and daily products. The number of firms in each product category is 891, 334, 218, and 142 for crop and grain, horticulture, fishery, and livestock and daily products, respectively. Of the total 369 obtained respondents, 191 are crop and grain, 90 are horticulture, 75 are fishery, and 53 are livestock and daily products exporting firms. Therefore, the distribution of exporting firms in each category is not evenly distributed.

3) This research is developed based on the agricultural exporting firms in Thailand. As a result, generalization of the research beyond the scope of Thailand must be undertaken with caution since there will be a different context of environment in different countries.

6.5 Suggestions for Future Research

This study aims to develop a comprehensive and causal model to examine the determinants on export performance of agricultural exporting firms in Thailand. The findings are very useful in explaining the antecedents of export performance of agricultural firms in Thailand. As the agricultural sector has played an important role in developing the Thai economy, further research on the export performance of Thai agricultural firms should be conducted. The suggestions for future research are given below:

1) In this study, export product strategy is viewed as the strategic factor that directly affects export performance and mediates the effects of a firm's resource and external environmental factors upon export performance. Since the impact of export product strategy upon export performance is not statistically significant, it is interesting to explore other marketing variables such as price, place, and promotion

strategy in the future research to gain deeper understanding of all the inputs of marketing mix strategy upon export performance.

2) This study is based on Thai agricultural exporting firms, thus replications of this study using this estimated model with different samples from other developing countries such as Vietnam, Malaysia, or the Philippines would help substantiate the findings and expand the body of knowledge in the export performance literature.

6.6 Summary

This study is the first initiative for the most comprehensive and systematic study of the determinants on export performance of agricultural exporting firms in Thailand. This chapter reveals the conclusions, discussions, research contributions, limitations of the study and suggestions for the future research. After the proposed model of the determinants on the export performance of agricultural exporting firms in Thailand was developed and examined, and the analysis showed the proposed model fitted the data, the results were discussed and the researcher followed up by conducting executive in-depth interviews.

This study reveals a number of interesting findings. The empirical findings show that agricultural exporting firms in Thailand are inside-out oriented for their export product strategies. The state-of-the-art nature of Thai agricultural exporting firms which typically use cost leadership as a source of competitive advantage is shown. Export commitment, international market knowledge, perceived competitive intensity, tariff and non-tariff barriers and government agency support are recognized as antecedents of export performance of agricultural firms in Thailand.

This research has broadened the knowledge of export performance of agricultural firms in Thailand and the contributions in this research include theoretical

contributions, managerial contributions and policy maker contributions. However, future research to expand the knowledge of the export performance of agricultural firms in Thailand should be conducted even more and more. Agricultural exporting firms in Thailand can benefit from more high quality, systematic research to enhance their performance in achieving the competitive growth in the world market.

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APPENDICES

APPENDIX A

เมษายน 2554

เรื่อง ขอบความอนุเคราะห์ในการให้สัมภาษณ์
เรียน นายกสมาคม

ดิฉัน นางสาวอัจฉรา เกษสุวรรณ นิสิตในหลักสูตรปริญญาเอก สาขาวิชาการตลาด จุฬาลงกรณ์มหาวิทยาลัย กำลังทำวิทยานิพนธ์ปริญญาเอกเรื่อง “ตัวแบบของปัจจัยที่ส่งผลกระทบต่อผลการดำเนินงานในการส่งออกของบริษัทส่งออกสินค้าเกษตรกรรมในประเทศไทย” (The Comprehensive Model of the Determinants on the Export Performance of Agricultural firms in Thailand) โดยคณะกรรมการวิทยานิพนธ์ มีดังนี้

ประธานกรรมการ	รศ.ดร.ประดิษฐ์ วรณรัตน์ รองอธิการบดีฝ่ายวิชาการ สถาบันบัณฑิตพัฒนบริหารศาสตร์	
อาจารย์ที่ปรึกษา	รศ.ดร.กฤษณ์ รื่นรมย์	จุฬาลงกรณ์มหาวิทยาลัย
กรรมการ	ศาสตราจารย์กิตติคุณ ดร.นงลักษณ์ วิรัชชัย	จุฬาลงกรณ์มหาวิทยาลัย
กรรมการ	Professor Robert T. Green	มหาวิทยาลัยธรรมศาสตร์
กรรมการ	รศ.ดร.ผดิดา ภู่อุญ	สถาบันบัณฑิตพัฒนบริหารศาสตร์
กรรมการ	ผศ.ดร.ชัชพงศ์ ตั้งมณี	จุฬาลงกรณ์มหาวิทยาลัย
กรรมการ	ดร.ณัฐพล อัสสะรัตน์	จุฬาลงกรณ์มหาวิทยาลัย
กรรมการ	ดร.ชฎิล นิ่มนวล	Managing Director บริษัท Excel Fruits จำกัด

งานวิจัยเรื่องนี้มีวัตถุประสงค์ที่จะพัฒนาองค์ความรู้ด้านการส่งออกสินค้าเกษตรกรรมของประเทศไทย อันจะเป็นประโยชน์อย่างยิ่งในการดำเนินธุรกิจของผู้ส่งออกสินค้าเกษตรกรรมในอนาคต โดยผลวิจัยที่ได้จะเป็นแนวทางที่ทำให้ผู้ประกอบการเข้าใจบทบาทของปัจจัยต่าง ๆ ที่ส่งผลต่อผลการดำเนินงานในการส่งออกของธุรกิจทางการเกษตร

ในการนี้ เนื่องจากสมาคมฯ เป็นหน่วยงานสำคัญที่ทำหน้าที่ดูแลประสานงาน รวมทั้งให้การส่งเสริมสนับสนุนการดำเนินงานของธุรกิจด้านเกษตรกรรม ดิฉันจึงใคร่ขอความอนุเคราะห์จากท่านเพื่อโปรดให้ดิฉันเข้าสัมภาษณ์นายสมาคมฯ โดยข้อมูลที่ทำนให้สัมภาษณ์จะถูกประมวลผลในภาพรวมเพื่อประกอบการจัดทำวิทยานิพนธ์ฉบับนี้เท่านั้น

เพื่อแสดงความขอบคุณในความร่วมมือของสมาคมฯ ดิฉันจะได้จัดส่งรายงานสรุปผลการวิจัยให้แก่ท่านหลังจากงานวิจัย เสร็จสิ้นลงแล้ว เพื่อท่านจะได้นำไปใช้ประโยชน์แก่สมาคมฯ ต่อไป ดิฉันขอขอบพระคุณล่วงหน้าเป็นอย่างสูงสำหรับความร่วมมือของท่าน สำหรับการประสานงานกรุณาติดต่อได้ที่หมายเลขโทรศัพท์ 081-843-3029 หรือ ajcharaor@yahoo.com

ขอแสดงความนับถือ

APPENDIX B

2 มิถุนายน 2554

เรื่อง ขอบความอนุเคราะห์ในการตอบแบบสอบถาม

เรียน ผู้จัดการฝ่ายส่งออก/ผู้บริหาร

ดิฉัน นางสาวอัจฉรา เกษสุวรรณ อาจารย์ประจำภาควิชาเทคโนโลยีอุตสาหกรรมเกษตร คณะอุตสาหกรรมเกษตร มหาวิทยาลัยเกษตรศาสตร์ ปัจจุบันเป็นนิสิตในหลักสูตรปริญญาเอก สาขาวิชาการตลาด จุฬาลงกรณ์มหาวิทยาลัย กำลังทำวิทยานิพนธ์ปริญญาเอกเรื่อง **“ตัวแบบของปัจจัยที่ส่งผลกระทบต่อผลการดำเนินงานในการส่งออกของบริษัทส่งออกสินค้าเกษตรกรรมในประเทศไทย” (The Comprehensive Model of the Determinants on the Export Performance of Agricultural firms in Thailand)** โดยมีรองศาสตราจารย์ ดร. กุณฑล รื่นรมย์ ภาควิชาการตลาด คณะพาณิชยศาสตร์และการบัญชี จุฬาลงกรณ์มหาวิทยาลัย เป็นอาจารย์ที่ปรึกษาวิทยานิพนธ์

งานวิจัยเรื่องนี้มีวัตถุประสงค์ที่จะพัฒนาองค์ความรู้ด้านการส่งออกสินค้าเกษตรกรรมของประเทศไทย อันจะเป็นประโยชน์อย่างยิ่งในการดำเนินธุรกิจของผู้ส่งออกสินค้าเกษตรกรรมในอนาคต โดยผลวิจัยที่ได้จะเป็นแนวทางที่ทำให้ผู้ประกอบการเข้าใจบทบาทของปัจจัยทางการตลาดต่าง ๆ ที่จะส่งผลกระทบต่อผลการดำเนินงานในการส่งออกของธุรกิจด้านเกษตรกรรมของประเทศไทย

ในฐานะที่ท่านเป็นผู้จัดการฝ่ายส่งออก/ผู้บริหารที่มีประสบการณ์และความชำนาญเป็นอย่างสูงในด้านการส่งออก ผลิตภัณฑ์เกษตรกรรม ดิฉันจึงใคร่ขอความอนุเคราะห์จากท่านเพื่อโปรดกรุณาสละเวลาตอบแบบสอบถามที่แนบมาด้วยพร้อมทั้งจดหมายฉบับนี้ และโปรดส่งกลับคืนมายังดิฉันด้วยซองจดหมายที่ชำระค่าไปรษณียากรเรียบร้อยแล้วภายในวันที่ 20 มิถุนายน 2554 ซึ่งข้อมูลที่ท่านตอบในแบบสอบถามทั้งหมดจะถูกเก็บรักษาไว้เป็นความลับและใช้ประมวลผลในภาพรวมเท่านั้น

เพื่อแสดงความขอบคุณในความอนุเคราะห์ของท่าน ดิฉันยินดีมอบรายงานสรุปผลการวิจัยให้แก่ท่านหลังจาก งานวิจัยเสร็จสิ้นลงแล้ว เพื่อท่านจะได้นำผลการวิจัยไปใช้ประโยชน์ต่อไป ดิฉันขอขอบพระคุณล่วงหน้าเป็นอย่างสูงในความร่วมมือของท่าน ถ้าท่านมีคำถามประการใด กรุณาติดต่อดิฉันได้โดยตรงที่หมายเลขโทรศัพท์ 081-843-3029 หรือ ajcharaor@yahoo.com

ขอแสดงความนับถืออย่างสูง

(รองศาสตราจารย์ ดร. กุณฑล รื่นรมย์)

(นางสาวอัจฉรา เกษสุวรรณ)

อาจารย์ที่ปรึกษาวิทยานิพนธ์ ภาควิชาการตลาด
คณะพาณิชยศาสตร์และการบัญชี จุฬาลงกรณ์มหาวิทยาลัย

นิสิตหลักสูตรปริญญาเอก ภาควิชาการตลาด
คณะพาณิชยศาสตร์และการบัญชี
จุฬาลงกรณ์มหาวิทยาลัย

APPENDIX C

แบบสอบถามผู้จัดการฝ่ายส่งออก/ผู้บริหาร
เรื่อง “ตัวแบบของปัจจัยที่ส่งผลกระทบต่อผลการดำเนินงานในการส่งออก
ของบริษัทส่งออกสินค้าเกษตรกรรมในประเทศไทย”

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาเรื่องการส่งออกของบริษัทส่งออกสินค้าเกษตรกรรมในประเทศไทย โดยมุ่งศึกษาอิทธิพลของปัจจัยสนับสนุนทรัพยากรสำหรับการส่งออก ความรู้เกี่ยวกับการตลาดระหว่างประเทศ กลยุทธ์ด้านผลิตภัณฑ์ และปัจจัยด้านการแข่งขัน อุปสรรคด้านกฎระเบียบต่าง ๆ ตลอดจนการสนับสนุนจากภาครัฐ ที่มีผลกระทบต่อการทำงานของบริษัทฯ เพื่อที่จะนำเสนอแนวทางในการพัฒนาและปรับปรุงด้านการตลาดส่งออกให้แก่ธุรกิจ และเป็นแนวทางในการกำหนดนโยบายของภาครัฐเพื่อสนับสนุนการส่งออกสินค้าเกษตรกรรมไทยให้สามารถสร้างความได้เปรียบในเชิงการแข่งขันในตลาดโลก

คำจำกัดความ: บริษัทส่งออกสินค้าเกษตรกรรม หมายถึง บริษัทส่งออกสินค้าเกษตรกรรมที่ตั้งอยู่ในประเทศไทย โดยที่สินค้าเกษตรกรรมหมายถึงสินค้าสี่กลุ่มหลัก ได้แก่ 1) สินค้าการเกษตร เช่น ข้าว ข้าวโพด ฯลฯ 2) ผักและผลไม้ 3) สินค้าประมง และ 4) สินค้าปศุสัตว์และผลิตภัณฑ์จากปศุสัตว์ เช่น เนื้อหมู ไก่ เป็นต้น

ข้อแนะนำในการตอบแบบสอบถาม

1. แบบสอบถามชุดนี้ประกอบด้วยคำถามทั้งหมด 5 ส่วนคือ

ส่วนที่ 1	ข้อมูลทางธุรกิจ
ส่วนที่ 2	ความคิดเห็นเกี่ยวกับทรัพยากรภายในของบริษัท
ส่วนที่ 3	ความคิดเห็นเกี่ยวกับกลยุทธ์ด้านผลิตภัณฑ์
ส่วนที่ 4	ความคิดเห็นเกี่ยวกับสภาพแวดล้อมภายนอก
ส่วนที่ 5	ความคิดเห็นเกี่ยวกับผลการดำเนินงานจากการส่งออกของบริษัท
2. หากมีคำถามข้อใดที่ท่านไม่ทราบตัวเลขคำตอบที่แน่นอน ขอความกรุณาใช้วิธีการประมาณการโดยอยู่บนพื้นฐานของข้อเท็จจริงมากที่สุด
3. ในกรณีที่บริษัทของท่านมีการส่งออกผลิตภัณฑ์มากกว่าหนึ่งกลุ่มผลิตภัณฑ์ กรุณาตอบโดยใช้ผลิตภัณฑ์กลุ่มหลักในแง่ของปริมาณการส่งออกมากที่สุด

กรุณาส่งแบบสอบถามกลับทางไปรษณีย์โดยใช้ซองจดหมายติดตราไปรษณียากรที่แนบมาพร้อมนี้ หรือ แฟกซ์มายังหมายเลข (02) 654-5091 ภายในวันที่ 20 มิถุนายน 2554

โปรดแนบนามบัตร หรือระบุชื่อ-ที่อยู่ของท่าน เพื่อผู้วิจัยจะได้มอบรายงานสรุปผลการวิจัยให้แก่ท่านเมื่องานวิจัยได้เสร็จสิ้นลง

ชื่อ-สกุล.....บริษัท.....

ที่อยู่

คำชี้แจง โปรดเติมข้อความหรือใส่เครื่องหมาย ✓ ลงในช่องที่ตรงกับลักษณะธุรกิจของท่าน

1. บริษัทที่ท่านทำงานอยู่ในปัจจุบันส่งออกสินค้าเกษตรกรรมในกลุ่มใด (ตอบได้มากกว่า 1 ข้อ)

<input type="checkbox"/> กสิกรรม	<input type="checkbox"/> ผักและผลไม้	<input type="checkbox"/> สินค้าประมง	<input type="checkbox"/> ปศุสัตว์
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2. จำนวนพนักงานประจำของบริษัท (รวมทุกระดับในโรงงาน) ประมาณ.....คน
3. บริษัทของท่านได้ดำเนินธุรกิจส่งออกมาเป็นเวลา.....ปี
4. ประสบการณ์ในการทำงานของท่านที่เกี่ยวกับข้องกับธุรกิจส่งออกประมาณ.....ปี
5. ปัจจุบันสินค้าส่งออกของบริษัทคิดเป็นสัดส่วนเท่าไรของปริมาณยอดขายทั้งหมด

<input type="checkbox"/> ไม่ส่งออกเลย	<input type="checkbox"/> ส่งออกแต่ไม่ถึง 50%
<input type="checkbox"/> ส่งออกมากกว่า 50% แต่ไม่ถึง 80%	<input type="checkbox"/> ส่งออกมากกว่า 80%
<input type="checkbox"/> ส่งออกทั้งหมด	
6. มูลค่ายอดขายรวม (Total Sales) ของบริษัทในปี 2553 คิดเป็นประมาณ

<input type="checkbox"/> น้อยกว่า 10 ล้านบาท	<input type="checkbox"/> 10-50 ล้านบาท
<input type="checkbox"/> 51-100 ล้านบาท	<input type="checkbox"/> 101-500 ล้านบาท
<input type="checkbox"/> 501-1,000 ล้านบาท	<input type="checkbox"/> มากกว่า 1,000 ล้านบาท
7. ลักษณะของช่องทางการส่งออกของบริษัทท่าน (ตอบได้มากกว่า 1 ข้อ)

<input type="checkbox"/> ส่งออกทางตรงไปยังลูกค้า	<input type="checkbox"/> สำนักงานตัวแทนบริษัทในต่างประเทศ
<input type="checkbox"/> ส่งออกผ่านบริษัทนายหน้าการค้า (Trading)	<input type="checkbox"/> ส่งออกผ่านตัวแทน (Agent/Broker)
8. ชนิดของผลิตภัณฑ์ (SKU) ของบริษัทมีจำนวน

<input type="checkbox"/> 1-3 SKU	<input type="checkbox"/> 4-6 SKU
<input type="checkbox"/> 7-9 SKU	<input type="checkbox"/> ตั้งแต่ 10 SKU ขึ้นไป
9. บริษัทของท่านส่งออกผลิตภัณฑ์เกษตรกรรมไปจำหน่ายยังกลุ่มประเทศใดมากที่สุด (ตอบเพียงข้อเดียว)

<input type="checkbox"/> อเมริกาเหนือ (เช่น สหรัฐอเมริกา แคนาดา)
<input type="checkbox"/> อเมริกากลางและใต้ (เช่น บราซิล ประเทศแถบแคริบเบียน)
<input type="checkbox"/> สหภาพยุโรปหรืออียู (เช่น อิตาลี ฝรั่งเศส อังกฤษ เยอรมัน)
<input type="checkbox"/> แอฟริกา (เช่น แอฟริกาใต้ ไนจีเรีย)
<input type="checkbox"/> กลุ่มประเทศอาเซียน (เช่น มาเลเซีย อินโดนีเซีย สิงคโปร์ เวียดนาม ลาว)
<input type="checkbox"/> กลุ่มประเทศเอเชียและแปซิฟิก (เช่น ญี่ปุ่น จีน เกาหลีใต้ ใต้หวัน ออสเตรเลีย)

ส่วนที่ 2 ด้านทรัพยากรภายในของบริษัท

คำชี้แจง โปรดใส่เครื่องหมาย ✓ ในช่องที่ตรงกับระดับความเห็นของท่านมากที่สุด

(1 = เห็นด้วยน้อยที่สุด 2 = เห็นด้วยน้อย 3 = เห็นด้วยปานกลาง 4 = เห็นด้วยมาก 5 = เห็นด้วยมากที่สุด)

	1	2	3	4	5
1. บริษัทที่มีผู้บริหารที่รับผิดชอบด้านการส่งออกหรือมีแผนกที่ดูแลการส่งออกโดยตรง					
2. บริษัทที่มีการจัดสรรงบประมาณเพื่อการส่งออกโดยเฉพาะ					
3. บริษัทที่มีเครื่องจักร คอมพิวเตอร์และอุปกรณ์ที่จำเป็นสำหรับส่งออกอย่างเหมาะสม					
4. ผู้บริหารมีการใช้ประสบการณ์เฉพาะหรือความเชี่ยวชาญในการส่งออก					
5. บริษัทได้เพิ่มพูนประสบการณ์ในการส่งออกตามระยะเวลาที่ผ่านมา					
6. ผู้บริหารได้รับการฝึกอบรมทั้งจากภายในและภายนอกองค์กรเพื่อเพิ่มพูนความรู้ความเข้าใจด้านตลาดระหว่างประเทศ					
7. ผู้บริหารมีการแสวงหาข้อมูลข่าวสารจากการทำวิจัยการตลาดภายในองค์กร					
8. ผู้บริหารมีการแสวงหาข้อมูลข่าวสารจากการทำงานแสดงสินค้าหรือจากสื่อต่าง ๆ					
9. ผู้บริหารมีการแสวงหาข้อมูลข่าวสารจากหน่วยงานภายนอก เช่น คู่ค้า หรือหน่วยงานของรัฐ เช่น กรมส่งเสริมการส่งออก ฯลฯ					

ส่วนที่ 3 กลยุทธ์ด้านผลิตภัณฑ์

	1	2	3	4	5
10. ผู้นำเข้า/ลูกค้ามีความพอใจคุณภาพผลิตภัณฑ์ของบริษัท					
11. คุณภาพผลิตภัณฑ์ของบริษัทดีกว่าคู่แข่งรายใหญ่					
12. บริษัทนำเสนอผลิตภัณฑ์ที่มีคุณภาพและให้ความมั่นใจแก่ผู้นำเข้า/ลูกค้า					
13. ผลิตภัณฑ์ของบริษัทได้รับการรับประกันความปลอดภัยโดยมาตรฐานต่าง ๆ					
14. กระบวนการผลิตของบริษัทมีระบบการรับรอง และการทวนสอบย้อนกลับ					
15. บริษัทมีการพัฒนาลักษณะบรรจุภัณฑ์ให้เหมาะสมกับตลาดส่งออก					
16. บริษัทมีการพัฒนาตราสินค้าให้เหมาะสมกับตลาดส่งออก					
17. บริษัทมีการพัฒนาป้ายฉลาก/โลโก้ให้เหมาะสมกับตลาดส่งออก					
18. บริษัทมีการพัฒนาคุณลักษณะของผลิตภัณฑ์ให้เหมาะสมกับตลาดส่งออก					

ส่วนที่ 4 ด้านสภาพแวดล้อมภายนอก

	1	2	3	4	5
19. บริษัทประสบปัญหาด้านการแข่งขันเรื่องราคา					
20. บริษัทเผชิญการแข่งขันโดยการสร้างสงครามด้านการส่งเสริมการตลาด					
21. บริษัทประสบปัญหาการเลียนแบบสินค้า					
22. บริษัทเผชิญการแข่งขันด้านช่องทางการจัดจำหน่าย					

	1	2	3	4	5
23. บริษัทเผชิญอุปสรรคจากมาตรการกีดกันทางภาษีอากร					
24. บริษัทเผชิญอุปสรรคจากการกีดกันโดยการจำกัดปริมาณนำเข้า หรือการห้ามนำเข้าในตลาดส่งออก					
25. บริษัทเผชิญอุปสรรคจากข้อกำหนดด้านสุขอนามัยและความปลอดภัย					
26. บริษัทเผชิญอุปสรรคจากการกำหนดมาตรฐานทางสังคม เช่น แรงงาน สิ่งแวดล้อม					
27. ภาครัฐให้การสนับสนุนบริษัทในด้านข้อมูลข่าวสารเกี่ยวกับการตลาดระหว่างประเทศ					
28. ภาครัฐให้การสนับสนุนบริษัทในด้านแหล่งเงินทุนกู้ยืมสำหรับการส่งออก					
29. ภาครัฐให้การสนับสนุนบริษัทในการเปิดตลาดส่งออกใหม่ ๆ					
30. ภาครัฐให้การสนับสนุนในด้านการเจรจาประเด็นการค้าระหว่างประเทศ					
31. ภาครัฐให้การสนับสนุนด้านการประชาสัมพันธ์และกิจกรรมแสดงสินค้า					

ส่วนที่ 5 ผลการดำเนินงานจากการส่งออก

คำชี้แจง โปรดใส่เครื่องหมาย ✓ ในช่องที่ตรงกับการประมาณการของท่านมากที่สุด

32. อัตราการเติบโตของยอดขายจากการส่งออกเปรียบเทียบกับปีที่ผ่านมา	ลดลง	คงที่ 0%	เพิ่มขึ้น 1-5%	เพิ่มขึ้น 6-10%	เพิ่มขึ้น 11-15%	เพิ่มขึ้นกว่า 15%
2550						
2551						
2552						
2553						

33. การดำเนินงานด้านการตลาดในการส่งออกเมื่อเทียบกับเป้าหมายที่ตั้งไว้	ต่ำกว่าประมาณการมาก 1	ต่ำกว่าประมาณการเล็กน้อย 2	เป็นไปตามประมาณการ 3	เกินกว่าประมาณการเล็กน้อย 4	เกินกว่าประมาณการมาก 5	ไม่เปลี่ยนแปลงจากเดิม
ส่วนแบ่งการตลาดเพิ่มขึ้น						
ตลาดใหม่ ๆ มีการขยายตัว						
ความสามารถในการแข่งขัน						

ขอขอบพระคุณอย่างสูงในความร่วมมือ

นางสาวอัจฉรา เกษสุวรรณ

นิสิตหลักสูตรปริญญาเอก ภาควิชาการตลาด

คณะพาณิชยศาสตร์และการบัญชี จุฬาลงกรณ์มหาวิทยาลัย

APPENDIX D

Lists of Executive / Top Management

Organization	Executive / Top Management
Thai Rice Exporters Association	Khun Tawachai Pichittanarak Khun Pisit Thirapornsawas
Thai Coffee Association	Khun Varee Sodprasert
Thai Frozen Foods Association	Dr. Panisuan Jamnarnwej
Thai Broiler Processing Exporters Association	Khun Kukrit Arepagorn
Thai Fruits and Vegetables Exporters Association	Khun Saowanee Boonpiom President
P.K. Import Export & Air Cargo Co., Ltd.	Major General Manussawee Boonpiom
Betagro Group	Dr.Nopporn Vayuchote Executive Vice President Group Business Development
Great Oriental Foods Product Co., Ltd.	Khun Visit Limlurcha Vice President
UnionFrost Co., Ltd	Khun Theeravut Hantanasarn Vice President Sales
	Anonymous persons who are responsible for export activities

Biography

Ajchara Kessuvan is a Samutprakarn native, born in January 1969. She earned her first degree majoring in economics from the faculty of economics, Thammasat University and a Master of Business Administration (MBA.) majoring in management from University of Wisconsin (Milwaukee), United States. After earning her master degree, she worked at Thailand Board of Investment (BOI) and Effem Thailand Inc. for more than 10 years. Currently, she is a lecturer in marketing at the department of Industrial Technology, Faculty of Agro-Industry, Kasetsart University.