Final Report

Long-Term Export Performance of Export Manufacturing Firm from Developing Economic Environment: A Case of Thailand

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วรรณกรรมเกี่ยวกับผลประกอบการส่งออกยังคงเต็มไปด้วยผลการศึกษาที่มีความขัดแย้งกันซึ่งยังหาข้อสรุปไม่ได้ ปัญหาสำคัญอย่างหนึ่งคือการเลือกกรอบเวลาที่เหมาะสมในการศึกษาความสัมพันธ์ระหว่างผลประกอบการส่งออกและปัจจัยตั้งต้น โดยยังไม่เคยปรากฏความพยายามที่จะศึกษาความสัมพันธ์ดังกล่าวในระยะยาวในระดับธุรกิจเลย การศึกษาครั้งนี้ตระหนักถึงข้อจำกัดนี้ในองค์ความรู้จึงได้พัฒนาตัวแบบผลประกอบการส่งออกระยะยาวที่ศึกษาความสัมพันธ์ระหว่างผลประกอบการระยะยาว 5 ปีของปี พ.ศ. 2550 ซึ่งเก็บข้อมูลในปี พ.ศ. 2553 กับปัจจัยตั้งต้นของผลประอบการดังกล่าวที่บันทึกไว้ในอดีตเมื่อปี พ.ศ. 2545 การศึกษานี้ใช้ตัวแบบสมการโครงสร้าง (Structural equation modeling) ในการวิเคราะห์ข้อมูล โดยเลือกอุตสาหกรรมที่ผลิตเพื่อส่งออกในประเทศกำลังพัฒนา คือประเทศไทยเป็นบริบทในการศึกษา และได้พบว่าในระยะยาวธุรกิจที่ผลิตเพื่อส่งออกในประเทศไทยจะต้องบรรลุผลตามเป้าหมายที่ไม่เกี่ยวกับตัวเงินก่อนจึงจะสามารถประสบความสำเร็จในรูปของตัวเงินได้ ทั้งนี้ธุรกิจเหล่านี้จะต้องสามารถฟันฝ่าอุปสรรคทั้งภายในและภายนอกองค์กร อย่างไรก็ตามกลยุทธ์การปรับส่วนผสมทางการตลาดไม่เกี่ยวข้องกับผลประกอบการส่งออกระยะยาวและไม่ถูกกระทบโดยปัจจัยสภาพแวดล้อมอีกด้วย

Keywords: ผลประกอบการส่งออก, ธุรกิจที่ผลิตเพื่อส่งออก, ระยะยาว, ประเทศกำลังพัฒนา, ประเทศไทย

Abstract

Project Code: MRG5280222

Project Title: Long-Term Export Performance of Export Manufacturing Firm from Developing Economic Environment: A Case of Thailand

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Export performance literature still prevails with contradictory and inconclusive results. One serious shortcoming that might well be the cause of limitation in the literature is ignorance of choosing the appropriate time horizon in modeling of performance determinants relationship. There has been no effort to specify chronological relationship between long-term export performance and its determinants in the firm-level. Realizing this gap, this study develops long-term export performance model wherein the longitudinal long term 5-year performance data of 2007 collected in 2010 is related to the historical performance determinants data collected in 2002. Structural equation modeling was applied to analyze the modeled relationship; while export manufacturing industries in developing economy of Thailand was chosen as a context of study. This study finds that in the long run export manufacturing firms in Thailand must achieve their non-economic export performance goals prior to getting reward by excellent economic export performance outcome. In so doing, these firms will have to overcome export barriers internal to them which are influenced by hostile domestic environment. However, adaptation of export marketing mix strategies have no role in determining how firms will attain their long term non-economic goals and neither are these strategic factors influenced by the barrier components.

Keywords: Export Performance, Export Manufacturing Firm, Long-Term, Developing Economic Environment, Thailand

Executive Summary

The academic endeavor of this study offers contribution for both scholars and practitioners in the field of export. The findings of this study provide a prescription for export manufacturing firm from developing economic environments specifically from Thailand to achieve satisfactorily long-term export performance and consequently sustained national growth and prosperity as led by exporting activities. Moreover some policy implications are also proposed to relevant governmental agencies of Thailand.

This study pioneers in specifying and testing relationship between economic and non-economic export performance in particular doing this with the long-term context. It finds that in the long-run the only way manufacturing firms from developing economies can attain satisfactorily economic export performance, in term of export sales and intensity, is to fulfill their non-economic set of goal, particularly expanding strategically into export markets and doing this with strong competitive position. Exporters are then suggested to set and not just set but more importantly commit to long-term non-economic goals.

The strategic components applicable to export manufacturing firms from developmental economies are also postulated and tested which help clarifying the controversial adaptation versus standardization issue in the export literature. This study finds that, for manufacturing firms from Thailand, not every marketing mix strategy is relevant but product and price and that standardization appears to be more fruitful in the long-run. To be able to success in the long-run export manufacturing firms should standardize the function, design, and quality of their products and so as the price charged, currency, and credit term. However, this strategic prescription is made with caution since the empirical evidences do not provide statistical support for the links.

Moreover, barriers to export operation of export manufacturing firms from developing economies are also developed which help push forward the taxonomy of export barrier and also clarify the relationship between them and their effect on strategies

and performance constructs. This study finds that, for manufacturing firms from Thailand, constraints to export success occurring within their concerns are caused by those national level handicaps of red tape in and the lack of cooperation among the government agencies relating to servicing of exporting activities. Thai exporters are proposed to minimize the inferiority of their product, productivity, and quality control and try to neutralize the negative consequences of the related poor governmental services.

Thai government agencies relating to exporting activities are also proposed to do their best to convince export manufacturing firms to dedicate to the preset long-term non-economic export targets so that they will have superb export performance in the long-run which will make milestone contribution to the country's sustained economic growth and prosperity. The government also has to actively improve routine operation of its agencies to facilitate export activities effectively.

Long-Term Export Performance of Export Manufacturing Firm from Developing Economic Environment: A Case of Thailand

Introduction

Both theoretical and practical issues inspiring this academic investigation are discussed in this section prior to discussion of conceptualization of each relevant construct and their theoretical links in the literature section.

To begin with theoretical issue, the literature probably most serious drawback has been the overlook of chronological order of the relationship between export performances and their determinants (Katsikeas, Leonidou, and Morgan 2000). Assuming concurrent existence of both performance consequences and their determinants has consistently plagued the empirical results of performance determinants relationship exploration. This model specification is wrong theoretically since it overlooks time lag effect of these determinants, especially strategy on performance. There are a few studies applied future anticipated export performance as a reflection of current export strategy and hardly any studies focusing on long-term perspective of export performance.

Past studies have been preoccupying with short-term performance outcome realizing that these performance perspectives are favored by majority of export practitioners. There has been a lack of attempt to analyze long-term relationship of export performance even though such relationship has long been posited, e.g. Madsen (1998), and importance has been persistently reminded, e.g. recently by Lages, Jap, and Griffith (2008).

Moreover the literature also usually ignores differentiating between non-economic and economic performance outcome, as postulated e.g. by Zou, Taylor, and Osland (1998) and also regularly overlooks relating these two constructs with each other. Besides, strategic components, specifically export marketing mix strategy, have not been justified precisely in the model. Most of export performance models simply include every marketing mix component without sufficiently justifying their existence. Furthermore, carelessness in choosing appropriate export barrier components for developing economic environment has been chronic practices.

Amid quite a few theoretical foundations, export performance literature has long been characterized by ignorance of theoretically well-grounded conceptual model in driving hypothesis development and testing (Cavusgil and Zou 1994). There have been consistent calls for an integrative export performance model in the literature, e.g. Zou and Stan (1998), such a model that is inclusive of every related construct in a precise fashion of their theoretical links with export performance and among themselves. Some theories, e.g. Ecological Organization Theory (Thorelli 1967) and Export Marketing Mix Theory (Bilkey 1987), seem to break through the deadlock in the literature; however, their attempts are at the best toward building comprehensive export performance model.

Moreover, firm performance has so far been approached from a number of perspectives in the literature. In examination of each stream, this study did not find a connecting body of research which ran across the streams. Moreover, and probably even more importantly, each relevant theory seems to at the best divorce from each other, e.g. industrial organization theory (e.g. Hofer 1975; Aldrich 1979; Porter 1980), resource-based theory (e.g. Barney 1991; Collis 1991), and strategy literatures (e.g. Mintzberg 1987; Eisenhardt 1999), and at the worst conflict with each other, e.g. industrial organization theory versus resource-based theory. In addition, a few important constructs, i.e. national-level structural export barriers and skill-intensity of export manufacturing industry, have been overlooked and missed from the model developed to explain export performance.

Whilst the export barriers literature (e.g. Bilkey and Tesar 1977; Leonidou 1995), export marketing and entrepreneurship literatures (e.g. Bilkey 1982; Cavusgil and Zou 1994) have concentrated on the various characteristics of buyers in export markets and within the firm to study export performance, their conceptual models are not exhaustive as they usually depend only on either industrial organization or resourced-based theoretical paradigm. Moreover, and more importantly, they usually exclude national-level structural export barriers since these hurdles are not applicable in their study context, i.e. developed countries. Also, appropriate barrier components applicable to developing economic environment have long been overlooked.

Furthermore, in examining the relationship between export performance and its determinants, the literature has been preoccupied with regression oriented analysis method in which inter-relationship between determinants of export performance are ignored when these constructs have been assumed to have direct relationship with export performance (Zou and Stan 1998). Confounding measurement error and ignoring indirect association, this oversimplification has deteriorated empirical investigation and led to inconclusive findings prevailing in the literature.

These limitations in the literature offer us a chance to develop and test an integrative export performance model so that export performance and other relevant bodies of knowledge can be pushed further forward. The following paragraphs discuss practical issues justify adopting a less developed country of Thailand as a study context.

Kotler and Keller (2012) contend that in the global marketing context distinction between developed and developing markets is very crucial. There are three main reasons for pinpointing a developing country. Firstly most of less developed countries actively pursue export-led growth and development policy (UNCTAD 2002). Secondly, modern trade theories (e.g. Porter 1990) argue that a key to country export success is the success of its individual exporting firms; therefore, to be able to understand and predict export performance of less developed countries, it is necessary that we study their firm export performance. Lastly, Porter (1990) further posits that firm's level export success is deeply related to national level structural factors such as government export promotion policy and trade infrastructure. Acemoglu and Robinson (2012) agree that national success depends on the role of national institutions in stimulating micro level activities and these social institutions are shaped by political system of each nation.

In less developed countries, however, national-level structural factors occurring domestically are major export barriers hindering firms (Michell 1979; Styles and Ambler 1994; and Acemoglu and Robinson 2012). These export barriers are extremely different from those faced by exporters from developed countries; hence are hardly touched by main stream export performance literature. It is very likely that exporting firms from less developed countries have to struggle considerably with their business since they faced with serious domestic structural export barriers. Thus, it is high time that this crucial theoretical link occurring fundamentally in less developed countries be examined since it

is a theme that has not been sufficiently covered at all in the export performance literature.

Thailand is chosen as a context of study since it has recovered from its serious crisis in 1997 basically because of its continuing export growth since then and ever since export account for major parts of its economy, roughly 70% (Bank of Thailand 2013). The recently erupted conflict between the Thai Ministry of Finance and the Bank of Thailand seems to vividly reflect persist dominant role of exporting as a major growth factor of the Thai economy. The fiscal policy master explicitly proposes to the monetary policy maker to lower the interest rate hoping to inhibit the massive influx of speculative funds and hence to hinder Baht appreciation principally to help export sector.

Based on international trade figures recently released by Bank of Thailand (2013), manufacturing export accounts for roughly 85% of total export value of Thailand; moreover around three quarter of these export value are from skill manufacturing products of which almost half generated by two important industries, i.e. electronic and electrical industries. It has been consistently claimed by the Thai government that Thai export manufacturing industries has already transformed to skill-based manufacturing referring basically to the share of skill based export sales. Therefore, investigating the role of skill-intensity of Thai export manufacturing industry in relation to firm's export performance is very interesting.

The research question is thus whether and how the literatures relevant to export performance connect and if they do connect which links are keys to the relationship between individual initiatives in and around the firm export performance. This study approaches this task from a marketing perspective by commencing with the premise that product or service performance in a well managed firm leads to firm performance. It will thus identify and examine the variables in the various literatures and use structural equation modeling (SEM) across the variables to empirically test which links lead to firm export performance. This study finally identify theoretical contribution and propose practical implication aimed for sustained export-led economic development process induced by potential interactions between micro-level export performance and macro-level economic performances together with providing meaningful directions for future research

Literature Review

The theoretical limitations and practical issues discussed earlier in the background section enable us to propose an integrative business performance model in a context of export manufacturing firm from developing economies of which their deduced hypothesis to be tested by operationalized structural model are discussed in the following paragraphs.

Short-term versus long-term aspects of export performance

Short-term versus long-term aspects of export performance has long been controversial in the literature. Madsen (1998), for instance, points out the conflicting nature of short-term practical measures of export performance, e.g. current profit, and its long-term strategic measures, e.g. future sales growth. Lages and Montgomery (2001) supported by concluding that, for SME exporters from Portugal, strategies are principally adapted to render desired short-term performance outcome rather than secure long-term goals. Doyle, Saunders, and Wong (1992) however suggested that Japanese managers are, unlike the European counterparts, long-term oriented by nature.

Moreover, Katsikeas *et al.* (2000) argue that strategy performance relationship is valid only when we recognize the chronological order of the constructs owing to the delaying effect of strategic determinants. They then recommend evaluating current strategy by using anticipated long-term future export performance; the method which a few studies, e.g. Ratanasithi and Hemphill (2006), followed in conceptualizing and operationalizing the performance construct. They found support for the links between long-term performance measures and both their strategic and contextual determinants.

Albeit such explicitly and chronically postulation echoing in the literature for more than a decade, most of the study happens to examine export performance recently, e.g. Lages and Montgomery (2003), Lages and Lages (2004), and Lages, Lages, and Lages (2006), has been doing such with the short-term perspective. Actually chronological investigation of the strategy and export performance relationship can be traced back to as long as in the late 90's, i.e. Gomes-Mejia (1988), but they did it with a short-term data

also. There are a few studies, e.g. Rodriguez and Samy (2003), utilizing long-term time series data but unfortunately they did them on a macro country level analysis. They found long-term significant relationship between labor standard and U.S. export performance. Interestingly recent studies of firm-level export performance in Thailand context (e.g. Chailom and Kaiwinit 2010; and Tantong, Karande, Nair, and Singhapakdi 2010), still ignoring time lag of strategic effect, focus only on current strategy-performance relationship. These studies' basic theoretical motivation are testing Bain's (1951) Structure-Conduct-Performance or S-C-P paradigm and found support evidences especially the positive link between adaptation strategies and performance.

Long-Term non-economic and economic export performance

This study contends that there is a long-run positive relationship between non-economic and economic export performance and that this theoretical link provides a new perspective for us to model export performance. Like most of performance literature, it recognizes existence of both non- economic and economic performances but what is unique in its model is their relationship and particularly their ordering. This study posits that non- economic export performance intervenes in every relationship between contextual factors, i.e. environmental, organizational, and strategic determinants, and economic export performance. In other word, there is no direct relationship between these determinants and economic export performance. Prior to justifying the link, conceptualization of business performance which is applicable to this study as export business performance or shortly referred to as export performance is discussed.

This study conceptualizes export performance as having non-economic and economic components which are both long-term in nature. The following literatures provide theoretical grounds for its conceptualization. Venkatraman and Ramanujam (1986) conceptualize business performance as comprising operational or non-financial factors and accounting based economic factors. They suggest that adding such value-based measures on accounting based measures improve validity of the business performance measure so it is prevailed in strategy research today. These operational factors are long-term strategic in nature, e.g. market share position, new product introduction, and marketing effectiveness; while those financial factors are traditional short-term economic measures such as sales and profit. Therefore, Venkatraman and Ramanujam's (1986) conceptualization of business performance is consistent with

strategic and economic taxonomy of export performance prevailed in export performance literature, e.g. Madsen (1998); and Zou, Taylor, and Osland (1998).

There are a number of theoretical and empirical evidences underlying the positive relationship between non-economic and economic export performance. In their marketing management text book, Matthews, Buzzell, Levitt, and Frank (1964) conceptualize marketing performance, a business performance induced by pursuing of marketing activities, as achievement of marketing goals or as improved competitive position which is reflected by economic marketing standard such as sales and profit. They further argue that the valid way to measure marketing-led business performance is to and only to evaluate achievement of pre-specified marketing goals, not gauging of economic performance consequence of these goals.

Matthews *et al.* (1964) add that it makes no sense for any businesses to consider themselves successful when they experience sales and profit growth but never meet their preset goals. Oppositely, they predict that any business can expect desired economic performance outcome as long as they strive to achieve their marketing goals. Since these goals are long-term strategic in nature, Matthews *et al.*'s (1964) important premises encourage us to posit that there is a positive link between non-economic and economic export performance and that this relationship precludes any direct relationship between economic export performance and its determinants.

Ever after Matthews *et al.*'s (1964) pioneering work, many subsequent literatures have emerged to endorse their argument. Thorelli's (1967) ecological organization theory argues for unilateral relationship, i.e. mutual association among variables including strategic and economic performance, within each group of organizational constructs including business performance. Demsetz's (1973) cost efficiency theory predicts that firms, which pursue a high market share as their strategic objective, will be able to gain an economy of scale. On the other hand, in his market power theory, Schroeter (1988) posits that firms gain size advantages from the ability to demand higher benefits from both their customers and suppliers.

Moreover, in conceptualization of business performance, Venkatraman and Ramanujam (1986) believe that there is a potential for positive association of non-economic with economic performance. Buzzell and Gales (1987) and Venkatraman and

Prescott (1990b) provide empirical evidences supporting this theoretical link. Based on their exhaustive PIMS (Profit Impact of Marketing Strategies) data base which includes businesses of all kind, Buzzell and Gales (1987) found that there are significant positive links between various marketing strategic components, e.g. relative market share position, and various economic measures of business performance, e.g. return on investment and return on sales. Venkatraman and Prescott (1990b) also used PIMS data base and found that there was a significant positive link between market share and profitability.

H1: Long-term non-economic export performance of a firm has a positive relationship with its long-term economic export performance.

Export marketing mix strategy

Based on various export literature, e.g. Chao, Samiee, and Yip (2004), this study argues that in less developed countries context product and price adaptation strategies are by far dominant export marketing mix strategies. This study conceptualizes adaptation as the degree to which firm adjust its marketing mix strategy either in relation to those of its domestic operation or in relation to those of its other export markets. This conceptualization is derived from those of Bartels (1968) who relate firm's international marketing strategy to its domestic markets and Buzzell (1968) who relate firm's international marketing strategy to others of its international markets. Cateora, Gilly, and Graham (2012) support these contentions by arguing that marketing discipline is universal except that adaptation to diverse international market environments is inevitable. Kotler and Keller (2012) agree by suggesting that international companies must decide how much to adapt their marketing strategy to local market conditions.

Export literature emphasizing less developed countries i.e. Wortzel and Wortzel (1981), Zou, Andrus, and Norvell (1997), Julian (2003), Chao *et al.* (2004), Cuyvers (2004), Julian and O'Cass (2004), and Lee and Griffith (2004), highlighted the dominant role of product and price adaptation strategies and the inferior role, if any, of distribution and promotion adaptation strategies. Chao *et al.* (2004) found that it is very likely that countries depending mainly on exports will have few, if any, global brands, e.g. India or Indonesia; while countries depending on global marketing will have many global brands e.g. Japan. They implied that exporting activities are hardly, if at all, related to brand-led

direct communication and promotional activities to consumers since export channel activities limit access to consumers.

Moreover, Asian brands have suffered from poor country images e.g. Taiwanese and Korean electronic brands. Lee and Grifith (2004) found empirical support for Chao *et al.*'s (2004) findings. They found that, for Korean electronics exporters, advertisements had no effect on export performance. Cuyvers (2004) recommended that Thai exporters adjust their marketing strategies based on product characteristics so that they can compete either on price or other marketing strategies. However, he implied that distribution and promotional strategies are largely ignored by Thai exporters, and thus require urgent attention.

Julian and O'Cass (2004) found that supports to distribution channels and promotion adaptation have no effect on export performance; while product and price adaptation strategies influence the export performance of Thai export manufacturing firms. Wortzel and Wortzel (1981) found that exporting firms, from less-developed countries with limited experience, inadequate market information, or restricted relationships with export channels, fundamentally pursue a strategy of contract manufacturing through which they perform very limited marketing activities. These exporters have to adapt their product offerings to match importers' order and compete basically on price.

Cuyvers (2004) provides support for Wortzel and Wortzel (1981) by confirming that most Thai exporters are SMEs and have limited export experience. Wortzel and Wortzel (1981) implied that distribution and promotion strategies are not relevant to exporting firms from less developed countries at least until they are able to establish relationships with export networks. Zou *et al.* (1997) found that product and price are two major export strategies determining the performance of Colombian exporters. They concluded that adapting products to match foreign markets needs has a positive effect on export intensity, while price adaptation affects export performance negatively.

a. Product adaptation strategy

This study posits that there is a link between product adaptation strategy and strategic export performance and that this link can be either positive or negative. This link is well grounded on at least five theories, i.e. industrial organization theory (e.g. Venkatraman and Prescott 1990a), resource-based theory (e.g. Barney 1991), ecological

organization theory (Thorelli 1967), strategy theory (e.g. Mintzberg 1987), and export marketing mix theory (Bilkey 1987).

Both industrial organization and resource-based theories recognize only subordinate role of strategy in determining performance. They argue that the dependence relationship between strategy and performance is contingent on firm's environmental and organizational factors respectively. Strategy theory's position is directly opposite, refusing strategy dependency on firm's contextual factors and highlighting the exclusive role of emergent strategy. Ecological organization and export marketing mix theories take on moderate views. The former accepts both dependent and independent role of strategy. The latter recognizes the role of both environmental and organizational factors in association with strategy and performance.

A good number of empirical evidences of strategy-performance relationship prevail in export performance literature. These literatures, e.g. Lanzara (1987), Cavusgil and Kirpalani (1993), and Aulah, Kotabe, and Teegen (2000), regularly found positive relationship between product adaptation strategy and strategic export performance. Marketing adaptation, especially product adaptation, has a positive impact on strategic export performance (Aulah *et al.* 2000). Subsequent product adaptation, after products are brought to market, has a positive association with strategic export performance (Cavusgil and Kirpalani 1993). The success of Italian exports relates mainly with product differentiation and adaptation strategies not any other marketing mix (Lanzara 1987). However, in their meta-analysis of export performance literature from 1987 to 1997, Zou and Stan (1998) found negative effect of product adaptation strategy on strategic export performance.

H2: Product adaptation strategy of a firm has a relationship with its long-term non-economic export performance; however, the relationship can be positive or negative.

This study also postulates that there is a positive link between product and price adaptation strategies. This link is well-grounded in the unilateral relationships identified in ecological organization theory (Thorelli 1967) which argues for the inter-relationship between strategic determinants of business performance. This relationship is further

endorsed in export literature such as Cuyvers (2004) who implied that product adaptation of Thai exporters is associated with their ability to adapt the price.

In counter-arguing Levitt's (1983) concept of "technology republic", Douglas and Wind (1987) implied that product adaptation has a positive relationship with price adaptation. They contend that global products are rare cases since it is valid only when global marketing infrastructures, e.g. logistics, are standardized and there is sufficient convergence of national cultures; otherwise, customized product is still able to demand relatively high price. Wortzel and Wortzel (1981) found that once exporters from less developed countries are ready to pursue brand-led product marketing strategy, they have more market power leading to flexibility in pursuing pricing strategy. They also found that these exporters' dependence on price competition will decrease when their ability to adapt their product, and later to adapt other marketing programs, increases. Wortzel and Wortzel (1981) thus implied that product adaptation strategy positively influences these firms' ability to adapt their price.

H3: Product adaptation strategy of a firm has a positive relationship with its price adaptation strategy.

b. Price adaptation

This paper posits that there is a relationship between price adaptation strategy and strategic export performance independent of firm's environmental and organizational factors; yet is contingent on product adaptation strategy. This link can be either positive or negative. This link is well grounded in the ecological organization (Thorelli 1967) and strategy theories (e.g. Eisenhardt 1999). Trilateral relationships of ecological organization theory suggest that the relationship between price adaptation strategy and strategic performance is contingent on product adaptation strategies. Strategy theory emphasizes dominant role of emergent strategy as a solitary determinant of performance independent of contextual factors. For example Eisenhardt (1999) argues that successful strategy emerges from decision process through which management develops collective intuition by accelerating constructive conflicts, maintaining decision pace, and avoiding politics.

Myers, Cavusgil, and Diamantopoulos (2002) propose that there is a positive link between degree of price coordination among country markets and export performance. Some export literature implies that the relationship between price adaptation and export performance is contingent only on product adaptation but not on contextual factors. These literature includes Wortzel and Wortzel (1981), Douglas and Wind (1987), Lanzara (1987), and Cuyvers (2004). Douglas and Wind (1987), for instance, argue that globally standardized products are only an exception when distribution and promotion infrastructures are of global standard which practically are not the case especially in less developed countries; therefore customized products adapted to local needs are still able to demand high price.

The empirical evidences relevant to the link between price adaptation strategy and strategic export performance are mixed. Leonidou, Katsikeas, and Samiee (2002) found strong positive relationship between price adaptation and strategic export performance. Cavusgil and Kirpalani (1993) found that price adaptation had a positive impact on strategic export performance. However, Shoham (1996) found that price adaptation strategy had a negative effect on strategic export performance.

H4: Price adaptation strategy of a firm has a relationship with its long-term non-economic export performance; however, the relationship can be positive or negative.

Barriers to exports

Export barriers have received much attention in export performance literature on the basis that if these are identified and eliminated, firm's export performance will be enhanced (Bilkey 1978). Bauerschmidt, Sullivan, and Gilesspie's (1985) pioneering empirical research disclosed several factors underlying export barriers facing the United States paper industry. They found that the most serious export barriers associated with these manufacturing firms were overseas economic constraints. Further, definition by Miesenbock (1988) revealed two fundamental factors underlying export barriers as those internal and external to the firm. Leonidou (2004), on the other hand, argued that there are two basic dimensions of export barriers; those occurring domestically and the others happening abroad. These dimensions extend his previous work in which export barriers

were found to be comprised of internal-domestic, internal-overseas, external-domestic, and external-overseas export barriers (Leonidou 1995).

Based on theoretical foundations from development economics and export literature, e.g. Walter (1971), Wortzel and Wortzel (1981), Stiglitz (2002, and 2003), and Cuyvers (2004), this paper extends the typology of export barrier evident in export literatures, by categorizing export barriers into two groups of domestic and internal-firm export barriers. Domestic export barriers are external to the firm and, in less-developed countries either occurring domestically or overseas, these are domestic in nature and melted down to national-level structural export barriers when they are function of government related barriers and poor national trade and upstream infrastructures.

Those government related barriers are e.g. poor performance of government in international trade negotiation, poor service of and lack of cooperation among export promotion agencies, and corruption and red tape in government offices. While in developed countries domestic export barriers external to the firm are much less serious when they are basically insufficient and poorly targeted government export promotion services and export market information. Internal-firm export barriers facing firms in less developed countries include those export barriers internal to the firm irrespective of whether they happen domestically or abroad (Wortzel and Wortzel 1981).

A few theoretical grounds underlie domestic nature of external export barriers facing firms from less developed countries are as follow. The external export barriers are minimized if and only if national government takes an active role in handling them; therefore they are basically functions of government role and policy. Walter (1971) argued that changes in international trade barriers have been biased against less-developed countries. He recommended that the governments of these countries take a more active role in monitoring international trade barriers and negotiating in international trade forums to minimize these barriers.

Walter (1971) implied that these international trade barriers are manageable by national governments taking on active and constructive roles. Stiglitz (2002) commented that international threats to any national economy can be minimized by its government independently pursuing the right social and economic strategies without misleading

hypocrisies or ideologies. He mentioned Malaysia as being the least exposed to the global financial crisis in 1997 because of its former Prime Minister's prudent economic policies.

This newly identified taxonomy of export barriers leads to development of a new measurement scale for export barriers, suitable for less developed countries from rich primary qualitative data collected from Thai export manufacturing firms (the final and initial measurement items of export barriers are shown in Appendix 1).

a. Domestic export barriers

This paper argues that there is a negative relationship between domestic export barriers and strategic export performance. This link is well-grounded in both industrial organization theory (e.g. Hofer 1975; Pfeffer and Salansick 1978; Aldrich 1979) and the bilateral relationship in ecological organization theory (Thorelli 1967). Pfeffer and Salansick (1978) argue that organization depends on environment for its resources; therefore, its success depends on whether it is able to neutralize its malign environments and opportune its benign external chance. By bilateral relationship, Thorelli (1967) posits that there is a link between environmental factors and business performance.

Based on export barrier literature, exporting firms from less developed countries experience various domestic export barriers which considerably vary in complexity and seriously hinder their export performance. Those simple export barriers include poor government export promotion services (Karafakioglu 1986) and poor supply of updated international market information (De Souza, Schmidt, and Colaiacovo 1983; Bodur 1986); while more complex export barriers include poor trade and public infrastructures, possibly caused by corruption of government officials, and domestic political and economic constraints (Da Silva and Da Rocha 2001). Furthermore, a lack of transparency and disclosure of private infrastructural investment at a sub-national level (Beato and Vives 2000), poor human resources and inactivity or ignorance of their governments participating in international trade negotiation (e.g. Das 1994; and Ratanasithi 2002) contribute to these barriers..

H5: Domestic export barrier has a negative relationship with long-term non-economic export performance of a firm.

This study also contends that there is a relationship between domestic export barriers and product adaptation strategy and that this relationship can be either positive or negative. This link is well-grounded in the environment-strategy coalignment paradigm (Venkatraman and Prescott 1990a), export marketing mix theory (Bilkey 1987), the bilateral relationship in ecological organization theory (Thorelli 1967) and in the position definition of strategy (Mintzberg 1987). The basic premises of these theories are that strategy has to be co-aligned with environment to induce desirable business performance; yet, when constrained by malign domestic barriers, exporting firms from developing economies seem to confound their strategic configuration; i.e. some try to be very adaptive hoping to be more competitive; while the others follow dumb standardization in a blanket not fruitful targeted fashion.

Zou *et al.* (1997) found that Colombian exporters seem to be flexible in standardization of their marketing strategies, i.e. some of their strategies inclined toward standardization; while the others skewed to adaptation. These exporters pursuit high standardization with regarding to product peripherals and promotional budgets. Yet, Colombian exporters face with domestic export barriers related to less-developed marketing infrastructure, tended to be adaptive in relation to their core product, distribution, promotion, customer service levels, sale force structure, and pricing since their domestic marketing strategies were not sophisticated enough to be applied or to ensure success in international markets. Zou *et al.* (1997) suggested that domestic products of Colombian exporter might not have as high quality and wide variety as those demanded in their export markets because of less consumer sophistication and poorer production technology.

Douglas and Craig (1989) implied that exporters from developing economies, incapable of identify opportunities for standardization, are forced to start exporting by blindly adapting their export product offerings. Wind, Douglas, and Perlmutter (1973) share the same theoretical perspective. Aulakh *et al.* (2000) also supported this eminent theoretical view by hinging that exporting firm from less developed countries, hindered by hostile domestic conditions, tend to adapt their product.

H6: Domestic export barrier has relationship with product adaptation strategy of a firm; however, the relationship can be positive or negative.

This paper posits that there is a positive relationship between domestic and internal-firm export barriers. This dependent relationship is well-grounded on industrial organization theory, e.g. Pfeffer and Salancik (1978) who argue that environmental factors influence firm's ability to acquire and possess its resources, bilateral dependence relationship of ecological organization theory, i.e. Thorelli (1967) who argues that there is a dependent relationship between environmental and organizational factors, and trade and development economics theories (e.g. Porter 1990; Stiglitz 1996; UNCTAD 2002).

Trade and development economics literature, e.g. Porter (1990), emphasizes government role in building firm's international competitive advantage. The failure of national government to provide such major macroeconomic drivers as trade infrastructure and export promotion policies and services will lead to exporting competitive disadvantages for exporting firms, e.g. poor productivity and poor quality control, since these drivers influence their competitiveness. In other words, domestic export barriers, both governmental and infrastructural factors influence internal-firm export barriers. The theoretical and empirical evidence from the trade and development economics literature supporting this hypothesized link is addressed below.

To sustain export-led economic development, countries have to change their manufacturing structures from unskilled-intensive to skill-intensive (e.g. Chowdhury and Kirkpatrick 1990; Porter 1990; Jin 1995; Young and Kim 1995; Appelbaum and Christerson 1997; Stiglitz 1996; Zhang and Yuk 1998; Jones, 2001; and UNCTAD 2002). In so doing, national governments have a very important role in building up national capital stock, i.e. human capital (Chowdhury and Kirkpatrick 1990; Porter 1990; Young and Kim 1995; Stiglitz 1996; UNCTAD 2002), social capital (Stiglitz 1996; Hazleton, and Kennan 2000), and physical capital stock (Jin 1995; Stiglitz 1996; Appelbaum and Christensen 1997; Zhang and Yuk 1998; Jones 2001). Education (Young and Kim 1995; Stiglitz 1996) and transparency democracy (Stiglitz 1996; Rivera-Batiz 2002) are national key drivers of such capital formation. Therefore, failure of national government in promoting good education and clean democracy will lead to poor capital formation and consequently firm's inability to compete successfully internationally.

***H7: Domestic export barrier has a positive relationship with internal-firm export barrier*.**

Internal-firm export barriers

This study postulates that there is a negative relationship between internal-firm export barriers and strategic export performance. This link is well-grounded in trade and development economics theories, (e.g. Porter 1990), resource-based theory, e.g. Collis (1991) which argue for the dependent relationship between firm's resources and its successful performance outcome, and trilateral relationship in ecological organization theory (Thorelli 1967). Trilateral relationship reflects a relationship between internal-firm and domestic export barriers that are associated with strategic export performance.

Trade and development economics literature emphasizes the landmark role of government in providing infrastructure and government-related services necessary for building up an exporting firm' s competitiveness (e.g. Porter 1990). When organizational skills in incessant creating and innovating (Porter 1990), in a "creative destruction" process (Schumpeter 1952), are combined with Hunt and Morgan's (1995) capability in acquiring and protecting unique resources firms achieve sustained competitive advantage and superior export performance. If this governmental role is not achieved, a competitive disadvantage will develop within exporting firms which will hinder their export operation and performance.

Trade and development economics literature also emphasizes that critical internal-firm export barriers such as a lack of operating resources, poor new product development, and poor quality control, result in exporting firms' failure in export markets (Hunt and Morgan 1995; UNCTAD 2002). The literatures thus recognized that export barriers internal to firms, varying positively with macro level export barriers, hinder firms from carrying out their export operations and therefore are negatively associated with the strategic export performance of these exporting firms.

H8: Internal-firm export barrier has a negative relationship with long-term non-economic export performance of a firm.

This paper argues that there is a link between internal-firm export barriers and product adaptation and it can be positive or negative. This link is firmly based on resource-based theory (Barney 1986), export marketing mix theory (Bilkey 1987), the bilateral relationship of ecological organization theory (Thorelli 1967) and the position definition of strategy (Mintzberg 1987). Resource-based theorists conclude that differential endowment of strategic resources among firms is the ultimate determinant of their strategy and performance (Zou and Cavusgil 1996).

As Barney (1986) points out, not all resources are strategically related to or offer firm competitive advantage. He adds that it is only those resources which are unique, hard to imitate or diffuse among competing firms, i.e. firm's valuable, rare, and imperfectly imitable organizational culture, which lead to sustained strategic advantage. Bilateral relationship of Thorelli's (1967) ecological organization theory is consistent with this view when it proposes link between firm's organizational and strategic factors. In his export marketing mix theory, Bilkey (1987) postulates that in order to be successful in its export markets firm has to adjust its strategic action so that it fits with organizational resources. By having a strategic position, Mintzberg (1987) argues that firm has to align its strategy with its internal resources.

There are other theoretical and empirical evidences supporting this directionality of relationship as positive and negative. Exporting firm from less developed countries, lacking organizational resources and knowledge and experience of international market, tend to adapt their product (Zou *et al.* 1997; Aulakh *et al.* 2000) while their counterparts in developed countries, capable enough to identify opportunities for standardization, tend to start their export by leveraging on their domestic product offerings (Douglas and Craig 1989; Wind *et al.* 1973). Zou *et al.* (1997) found that Columbian exporters are indirectly forced to overlook adaptation necessary and turn to standardization because of internal-firm export barriers of poor monitoring of the performance outcome of their export marketing strategies, and poor judgment regarding the feasibility of adaptation of some strategies

H9: Internal-firm export barrier has a relationship with product adaptation strategy; however, the relationship can be positive or negative.

Skill intensity

Based on trade and development economics, strategic management and export performance literature, this paper posits that the skill-intensity of export manufacturing industry affects the relationship between strategic and economic export performance, between strategic export performance and its determinants, between product and price adaptation strategies, and between domestic and internal-firm export barriers in such a way that these relationships differ significantly between skill- and unskilled-intensive industries.

There are both theoretical and practical grounds underlying this hypothesis. Much of the economic literature identified skill-intensity as a determinant of export performance either explicitly or implicitly. Leontief (1953) paradoxical finding that skill was important has been the path developed in the later literature (Keesing 1966; Porter 1990). Moreover skill-intensity has some role to play in Hunt and Morgan's (1995) resource-advantage model at least in the context of less developed countries where exporting firms in unskilled-intensive industries are faced with disproportionate international trade barriers (Walter 1971; UNCTAD 2002; and Stiglitz 2003).

Ricardo (1819) and Ohlin (1967) did not include skill-intensity as they conceptualized the cost per unit of labor as the driving unit of trade. Vernon (1966) argued that product cycle theory reflects the late unskilled-intensive export-led growth stage in less developed countries when the unskilled-intensive industries lost its price competitiveness without having developed a skill base competitive edge (UNCTAD 2002). Recent literature (e.g. Minford 1989; Wood 1994) thus argues that skill-intensity is a dominant construct for explaining export performance. Based on their imperfect mobility nature, caused by e.g. adherence to country of origin, and immigration restriction, labor factor of production differs in their skill across countries, especially between developed and less developed countries. Therefore, in his book "North-South Trade, Employment, and Inequality: Changing Fortunes in a Skill Driven World", Wood (1994) argues that labor-skill is a dominant factor of production governing inter-industry trade between developed and less developed countries currently. Wood and Mayer's (1998) skill

category, basically based on skill/unskilled labor ratio, provides this study with theoretical base for grouping its sample industries.

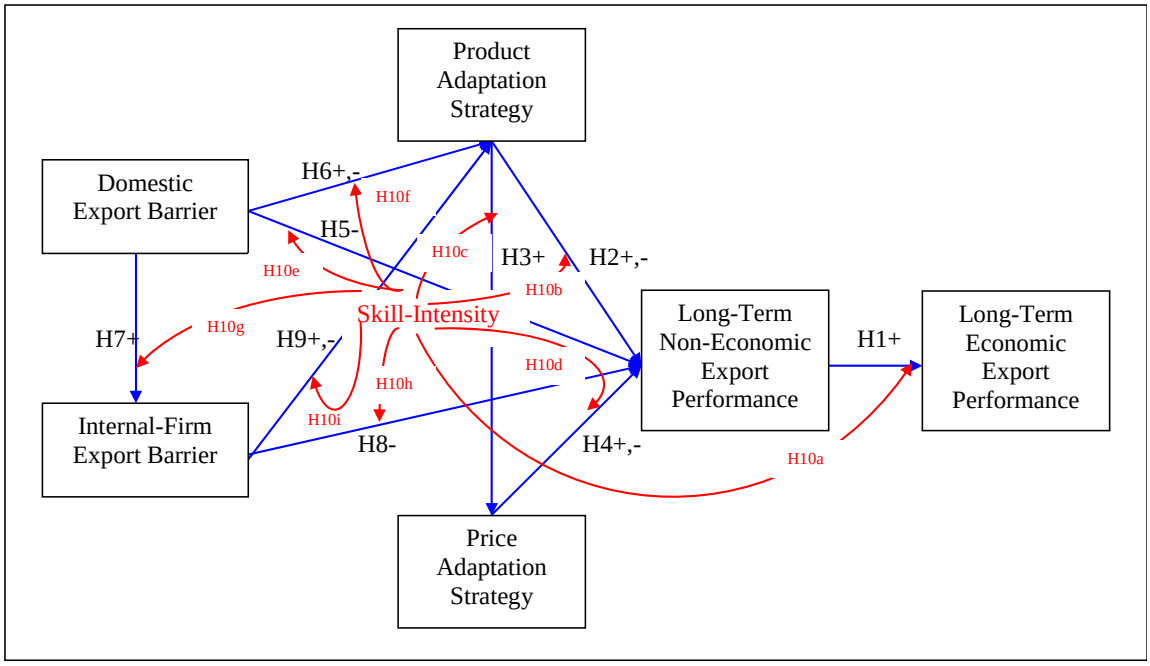
Moreover, skill-intensity is a controversial benchmark of structural transformation in export manufacturing industries of less developed countries. Most of the less developed countries pursuing export-led policy usually claim that their export manufacturing industries have already transformed to skill-based industries; while UNCTAD (2002) strongly disagrees by pointing out that this claim is invalid when most of skill components are imported before assembling and re-export as finished products. Skill-intensity of export manufacturing industries is an ultimate goal of structural transformation since being skill oriented, exporter is able to be creative and innovate in its operation especially marketing, leading to product and other marketing mixes differentiation and hence minimizing its vulnerable to price competition (Chowdhury and Kirkpatrick 1990; UNCTAD 2002).

This means that skill-intensity of export manufacturing industries intervenes in fundamental, particularly marketing, activities of exporting entity and the most appropriate context of study seems to be less developed countries, economy in transition to skill-based industry structures. However skill is defined in the economics literature as the level of expertise existing in an economy and not in a firm. The terms used are unskilled, semi skilled, and highly skilled which is a very broad classification of skill and may not reflect what is required in an individual firm where the requirements may be for quite specific and defined skills thus the overall effect expected can only be as an intervening construct on the various links proposed previously in the literature review as hypotheses 1 to 9.

H10: Skill-intensity of a firm alters the relationships between each construct modeled in Thai manufacturers' long-term export performance.

From the above relationships a general model is developed in Figure 1

Figure 1: The Theoretical Model



Methodology

This section discusses how this study manages to answer its research questions by testing the hypothesized theoretical links derived from the literature. It captures every research design aspect ranging from identification of population, sample, and sampling, analysis method, assessment of assumption of structural equation modeling, assessment of error, and measurement assessment.

Population

Target population is 303 manufacturing exporters participated in the authors' former research project in 2002. These exporters are from eight important export manufacturing industries, i.e. processed food, garments, textile, jewelry, leather goods and footwear, furniture, electrical appliances, and computer and electronics whose recent

total exports account for around 75% of the country's total manufacturing exports (Bank of Thailand 2012). Details of population via industries and their corresponding sample size are shown in Table 1 below. These are considered major export manufacturing industries since they share major parts in national total manufacturing export sales. Moreover, they provide a perfect blend of unskilled- and skill-intensive industries of which skill category is based on Wood and Mayer's (1998) criteria. There are 2 skill industries namely computer and electronics, and electrical appliances; while the rest are considered unskilled ones.

Table 1**: Population and Sample of Export Manufacturing Firms by Industries**

Industry	Population	Sample	% Response
Unskilled Industry:			
Food	**34**	**12**	**36**
Garment	**62**	**12**	**19**
Textile	**24**	**8**	**33**
Jewelry	**37**	**16**	**43**
Leather Goods and Footwear	**34**	**9**	**26**
Furniture	**40**	**15**	**38**
Total Unskilled Industry	**231**	**72**	**31**
Skill Industry:			
Computer and Electronic	**17**	**7**	**41**
Electrical Products	**55**	**14**	**25**
Total Skill Industry	**72**	**21**	**29**
Total	**303**	**93**	**31**

Sample

Sample is drawn purposively and actively from each industry whereby the performance of data collection is shown in Table 1. Collectively the response rate is satisfactorily 31% making a total of 93 respondents, meeting the minimum sample as suggested by Hayduk (1987, 1996). From these sample, there are 72 unskilled manufacturing exporters and 21 are of skill ones. The total sample size renders

acceptable statistical power of around 60% at 81 degree of freedom (McQuitty 2004) and imposes no limitation to this study on detecting fault hypotheses owing to its cautious model specification process which well grounded on the literature helps securing effect size and precluding imminent of type two error of accepting fault hypothesis unintentionally (Hair, Anderson, Tatham, and Black 1998, p.11). The strong effect size secure statistical power even in testing the hypotheses of skill-intensity wherein the exporters were split into two groups having less sample in each one. Hypotheses testing method of this study followed Neuman's (1997) method of testing null hypotheses. It is the logic of disconfirming hypotheses associated with Popper's (1968) concept of falsification.

Data Collection

Finishing in mid 2012, the data collection of this study was done successfully amidst extreme hostile environments external and internal to Thailand affecting operation of every economic sector especially exporting one. Beside torment from overseas economic malign, the Thai economy has been suffering from serious and chronic political commotion, and uprising intermittently throughout the past 4 years before encountering a historical natural disaster of mega flooding late in 2012. These uncontrollable difficulties had delayed the process of data collection to 2010 and topped up the natural hardship in collecting historical data required by this research especially in Thailand where systematic data recording is still poor.

However, owing to systematic data collection process wherein every response facilitating support possible, e.g. an offer of survey results, preliminary notification, cover letters, personalization, a deadline, a return envelope with postage, and follow-up phone call as suggested by Yu and Cooper (1983), was performed, this study receiving a complete response from 93 exporters as earlier mentioned. The data collection process started by telephone contact each of 303 target respondent convincing them of benefits of the study and especially of having the correct historical data hoping for their kind cooperation. Questionnaires were then sent by both regular and electronic mails depending on convenience of each respondent following up telephone were then planned

to make every two-week period; yet long break period had to be favor to the exporter intermittently once there was an eruption of domestic commotion and the mega flooding.

Moreover, because of burdensome favor in taking time looking for recorded historical export performance data, this study have no choice but allow the volunteer respondents to respond as late as they want working at their most ease taking their time looking for and feeding the right data for the study. In other word, this study has no worry of non-response bias since every respondent is a late response making no suspicion of differences between theirs and those did not give the answer. Moreover, owing to considerate and timely telephone contact, this study got kind cooperation in fulfilling every single missing data if any in any returned questionnaire**.**

Assessment of Error

True Characteristics of Export Performance are measured by constraining variance in the data to that which is measured rather than that which may have originated from other sources. This includes consideration of the following sources of variance, i.e. export performance, respondents, the questionnaire, the environment and their interaction based on the work of Finn and Kayande (1997). The random errors arising from possible transient factors and systematic errors are identified so that those random errors are avoided and those systematic errors can be controlled to minimize measurement errors and improve quality of the measures. Those random errors are also recognized so that cautious comparison of research findings with those of other research is alert.

Quality of Measures

Following Churchill's (1979) procedure, the measures of this study were carefully purified by exploratory factor analysis (EFA) since the pretesting state. EFA was repeated with the main empirical data by which improving the measures' quality. Every scale finally was subjected to confirmatory factor analysis (CFA) with SEM resulting in a purified scale for each (Pools of initial items for each construct and their final items were shown in the Appendix). Measurement model estimates demonstrate both discriminant and convergent validity. Indexes reflecting quality of measures are shown in Table 2 below. Every measure converge into one factor and discriminate from others, high scale variance explained are exhibited as well as high Cronbach's alpha.

Table 2: Results of Measure Purification by Exploratory Factor Analysis and Reliability Analysis

Construct	Final Scale				Main Study				Pretest			
	No. of Factor	No. of Item	Variance Explained	Cronbach's Alpha	No. of Factor	No. of Item	Variance Explained	Cronbach's Alpha	No. of Factor	No. of Item	Variance Explained	Cron ach' Alph
DOMBAR (Domestic Export Barriers)	1	2	87.367	0.8554	1	5	54.156	.7734	1	5	72.305	.902
INTFIRMBAR (Internal-Firm Export Barriers)	1	3	80.633	0.8791	1	5	71.502	.8995	1	5	77.219	.925
PRODADAP (Product Adaptation Strategy)	1	3	69.642	0.7808	1	4	59.893	.7737	1	4	72.739	.874
PICEADAP (Price Adaptation Strategy)	1	3	61.710	0.6896	1	4	60.641	.7812	1	4	53.936	.713
NONECONXPERF07 (Long-term Non-economic Export Performance in 2007)	1	2	86.852	0.8486	1	7	74.670	.9431	1	7	83.134	.966
ECONXPERF07 (Long-term Economic Export Performance in 2007)	1	2	96.442	0.9631	1	6	78.334	.9442	1	6	82.062	.956

Analysis Method

Structural equation modeling (SEM) was used in data analysis of this study. Anderson and Gerbing's (1988) two-step modeling approach was followed to fit a confirmatory measurement model to the data prior to structural model testing. Before applying SEM, its basic assumption, i.e. normality, homogeneity of variance, and multicollinearity, were evaluated so that analysis results are free from bias. Model development and testing results are reported based on McDonald and Ho's (2002) principles and practice in reporting structural equation analysis.

For model evaluation, this study does not depend on only one fit index, for example chi-square statistics, that is sensitive to sample size, but also on other statistics (Anderson and Gerbing 1988; McDonald and Ho 2002) which are: general fit index (GFI), adjusted general fit index (AGFI), root mean square error of approximation (RMSEA), root mean square residual (RMR), and Bollen and Stine' s (1992) P value, all of which are shown in Table 3 below together with their graphical illustration shown in Figure 2 to 5 below, so a returned sample size of 93 is appropriate.

Table 3: Fit Indicators of the Models

Model	Chi-Square (Cmin)	Degree of Freedom (df)	Cmin/df	p-value	RMSEA	RMR	GFI	AGFI	Bollen & Stine p-value
Measurement Model: 8 industries	65.300	75	0.871	0.781	0.000	0.104	0.921	0.874	0.886
Structural Model: 8 industries	69.735	81	0.861	0.810	0.000	0.142	0.915	0.875	0.886
Structural Model: 2 Skill industries	128.895	81	1.591	0.001	0.172	0.319	0.643	0.471	0.443
Structural Model: 6 Unskilled industries	81.077	81	1.001	0.477	0.004	0.150	0.877	0.818	0.726

Figure 2: Measurement Model of 8 Export Manufacturing Industries

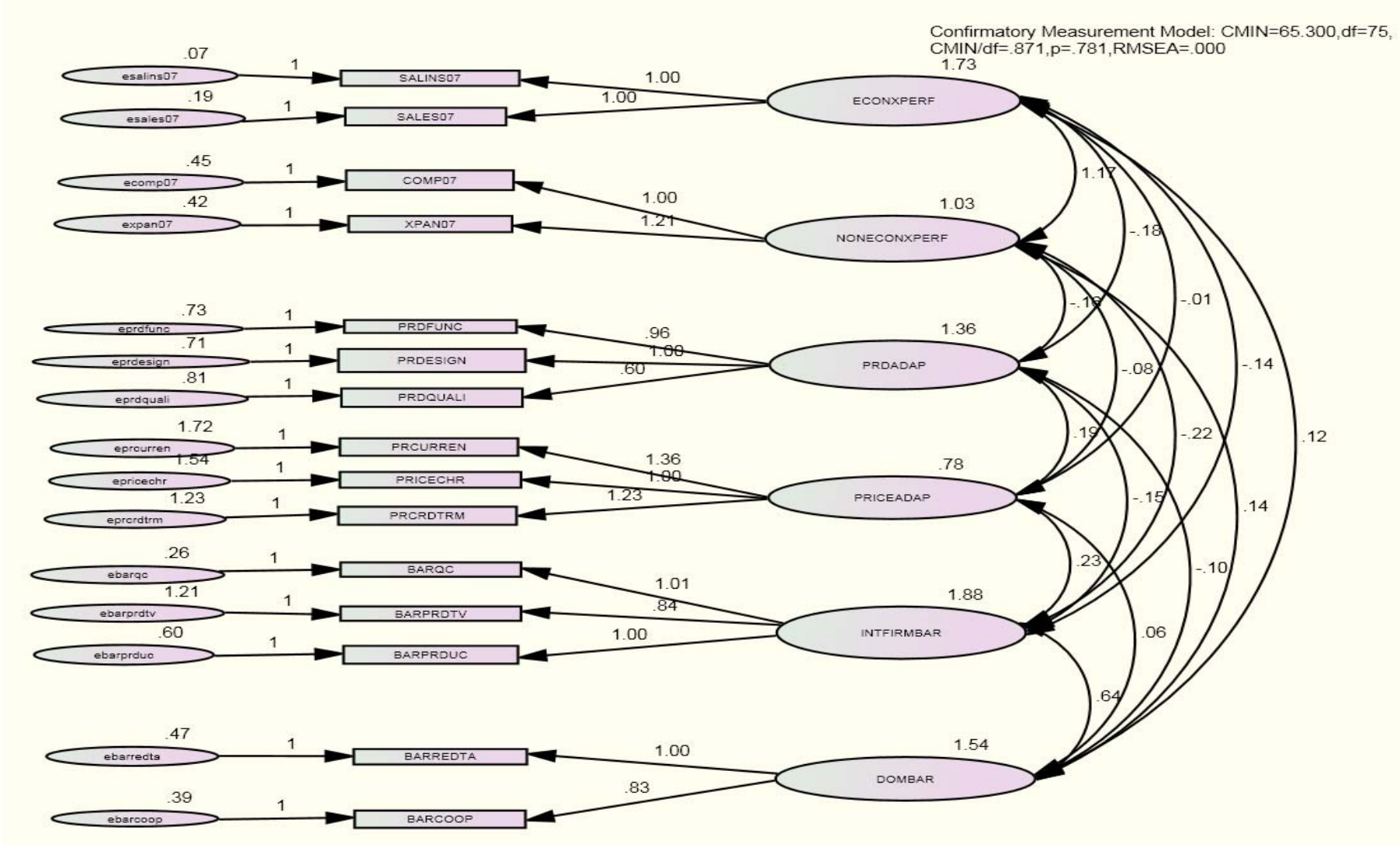


Figure 3: Structural Model of 8 Export Manufacturing Industries

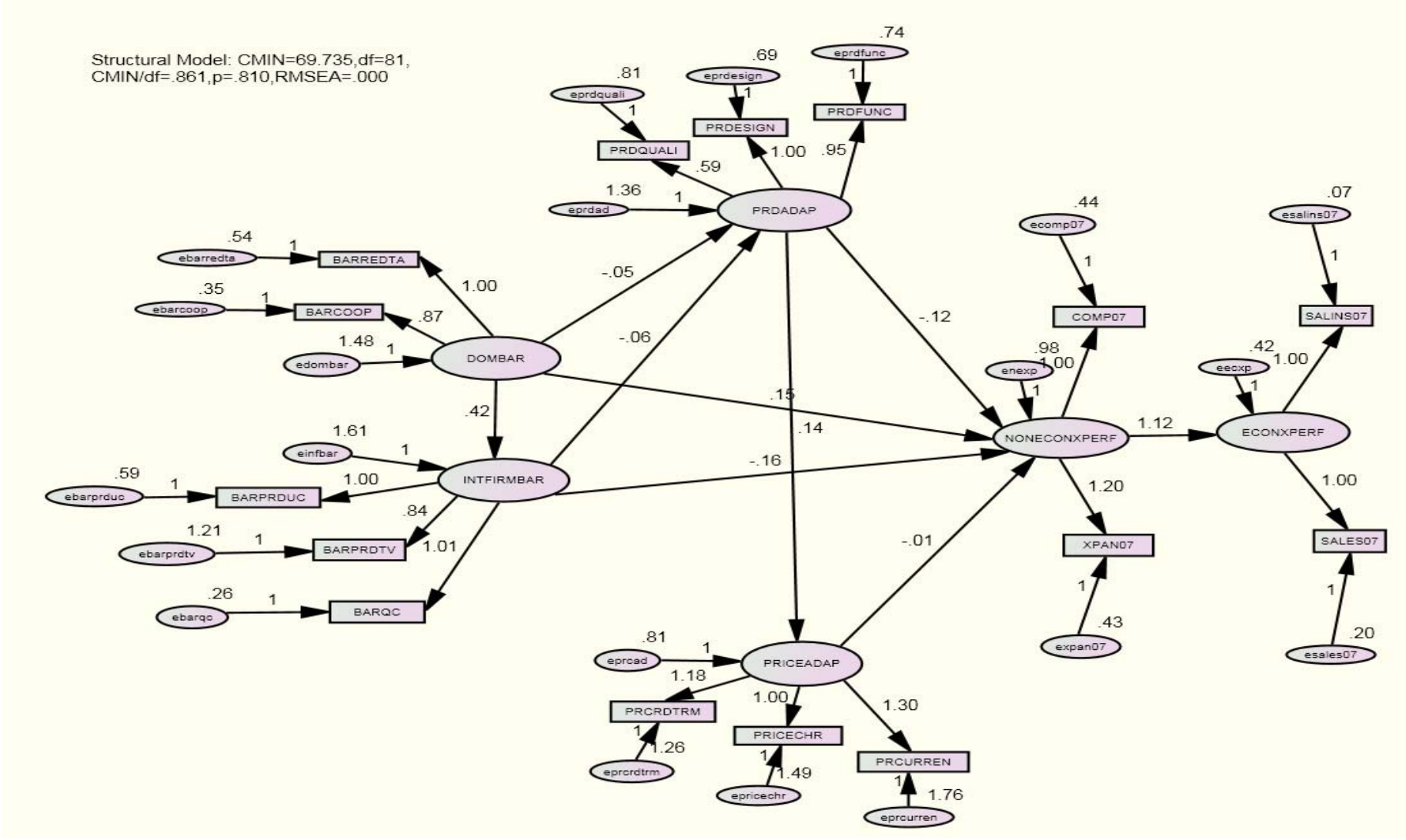


Figure 4: Structural Model of 2 Skill Manufacturing Industries

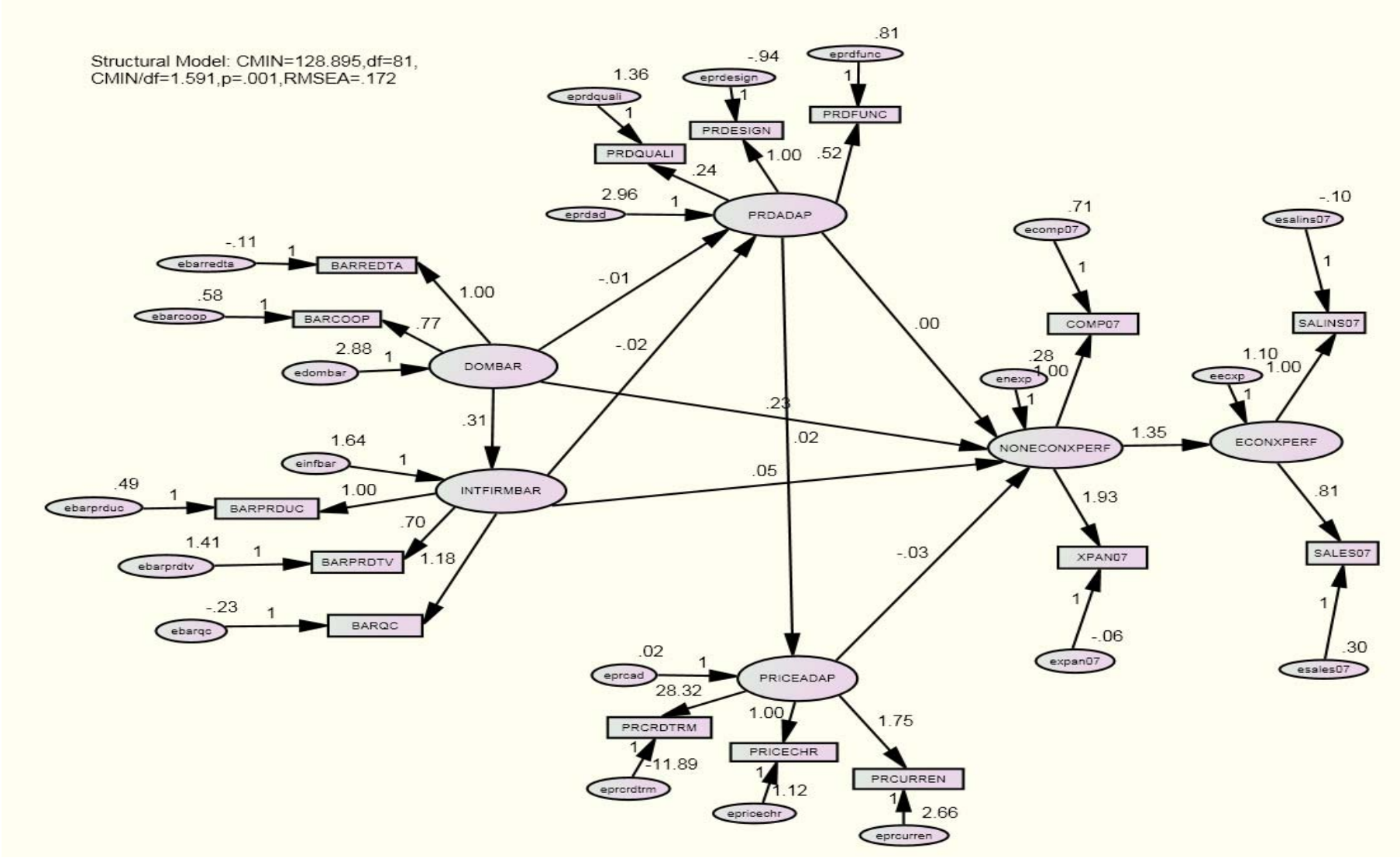
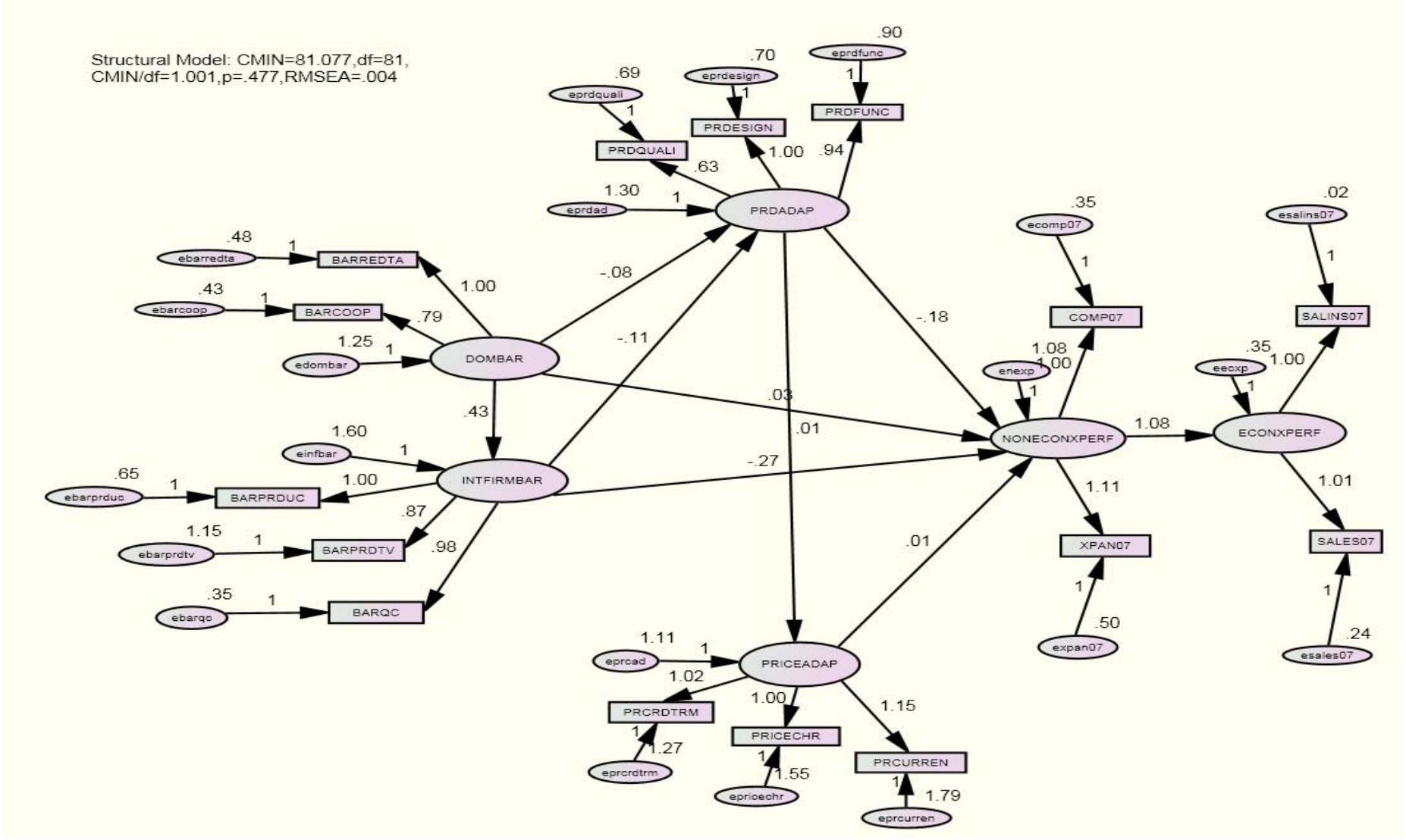


Figure 5: Structural Model of 6 Unskilled Manufacturing Industries



Findings

As shown in Table 3, within the eight industries, two out of the nine hypotheses are accepted, i.e. the positive links from long-term non-economic to long-term economic export performance, and the positive link from domestic to internal-firm export barriers. As for six unskilled industries, there are three significant links, i.e. those two links accepted in the eight industries plus the negative link from internal-firm export barrier to non-economic export performance; while for two skill industries, two links are supported, i.e. the positive link from non-economic to economic export performance and the surprising positive link from domestic export barrier to non-economic export performance.

Following Pearl (2000), this study goes on with testing the difference between the skill- and unskilled-intensive industries of these nine hypothesized links, as shown in Table 4, since it is not necessary that the differences of the links be insignificant even though each link is not significant. This study ultimately found that there are two out of the nine hypothesized differences between the two industries are significantly different, i.e. the link from non-economic to economic export performance, and the link from internal-firm barriers to non-economic export performance. These findings are discussed in the next section.

Table 3: Results of Testing Nine Hypothesized Links

Hyp	Links	Results		
		8 industries (Critical Ratio)	**6 Unskilled industries (Critical Ratio)**	**2 Skill industries (Critical Ratio)**
1	Long-term non-economic export performance has a positive relationship with long-term economic export performance	***Supported (9.514)***	***Supported (9.924)***	***Supported (2.748)***
2	Product adaptation strategy has a relationship with long-term non-economic export performance	Not Supported (-1.144)	Not Supported (-1.390)	Not Supported (0.002)
3	Product adaptation strategy has a positive relationship with price adaptation strategy	Not Supported (1.245)	Not Supported (0.098)	Not Supported (0.238)
4	Price adaptation strategy has a relationship with long-term non-economic export performance	Not Supported (-0.080)	Not Supported (0.061)	Not Supported (-0.120)
5	Domestic export barrier has a negative relationship with long-term non-economic export performance	Not Supported (1.338)	Not Supported (0.184)	***Supported (2.051)***
6	Domestic export barrier has a positive relationship with product adaptation strategy	Not Supported (-0.368)	Not Supported (-0.495)	Not Supported (-0.039)
7	Domestic export barrier has a positive relationship with internal-firm export barrier	***Supported (3.107)***	***Supported (2.316)***	Not Supported (1.823)
8	Internal-firm export barrier has a negative relationship with long-term non-economic export performance	***Supported (-1.707)***	***Supported (-2.338)***	Not Supported (0.639)
9	Internal-firm export barrier has a relationship with product adaptation strategy	Not Supported (-0.512)	Not Supported (-0.855)	Not Supported (-0.110)

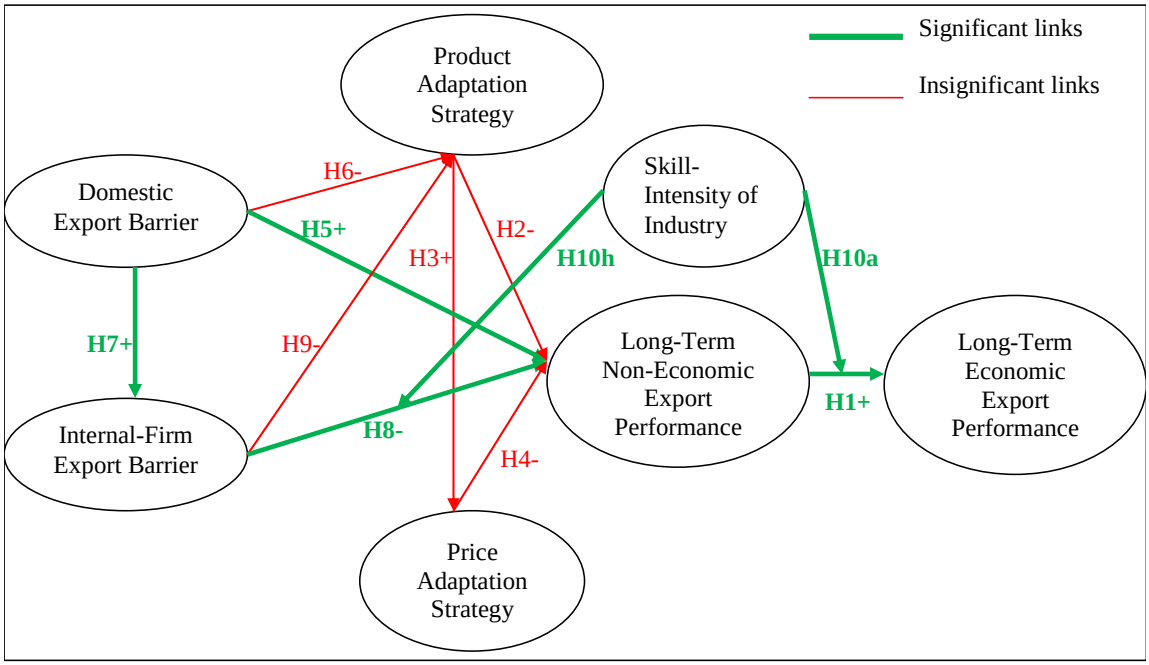
t-test with 95% confidence (alpha of 0.05) and a statistical power of around 60%

Table 4: Results of Testing Relationship of Skill Intensity and the Nine Hypothesized Links

Hyp	Differences between skill- and unskilled-intensive industries in the relationship between	Results (Chi-Square Differential)
10a	Long-term non-economic export performance and long-term economic export performance	Not Supported (4.540)
10b	Product adaptation strategy and long-term non-economic export performance	Not Supported (1.942)
10c	Product adaptation strategy and price adaptation strategy	Not Supported (0.000)
10d	Price adaptation strategy and long-term non-economic export performance	Not Supported (0.065)
10e	Domestic export barrier and long-term non-economic export performance	***Supported (1.831)***
10f	Domestic export barrier and product adaptation strategy	Not Supported (0.182)
10g	Domestic export barrier and internal-firm export barrier	Not Supported (0.404)
10h	Internal firm export barrier and long-term non-economic export performance	***Supported (7.769)***
10i	Internal-firm export barrier and product adaptation strategy	Not Supported (0.494)

Chi-square differential test at 1 degree of freedom with 95% confidence (alpha of 0.05) and a statistical power of around 60%

Figure 6: Summary of significant links derived from SEM



Discussion

This study's academic endeavor of specifying and testing the long-term export performance model provides an empirical evidence of the relationship between these export performance outcomes and their determinants for the first time after direction of such endeavor has long been echoed in the literature. A major hindrance for modeling the long-term relationship of export performance is difficulties in data collection, specifically collecting the time series longitudinal data, in which this study has spent persistent effort during the last four years. The difficulties in data collection even uncountable sore in serious hostile environment clouded Thailand over the past four years. Therefore, getting empirical results with statistically good fit model prove to be graceful paid off and are the basis for the following discussion.

The model supported by this research was substantially different from those proposed in the literature. The landmark finding of this study is the strong positive relationship between the two export performance components of export manufacturing firms from Thailand, i.e. non-economic and economic ones, in the long-run. Such an outstanding link provides milestone support for the two important theoretical contentions denoted earlier in the literature section. Firstly the empirical existence of the long-term perspective of exporters as pointed out by Madsen (1998), and Doyle Saunders and Wong (1992). Secondly the theoretical components of business performance as posited by Venkatraman and Ramanujam's (1986), Buzzell and Gales (1987), and Venkatraman and Prescott (1990b), so as the export performance as proposed by Madsen (1998) and validated across nations by Zou *et al.* (1998).

For the chronological issue of export performance, this study shows for the first time that in the long-run the contextual factors, no matter whether they are strategic ones, environmental ones, or firm's resources, will only link with the economic outcome via these prior set long-term targets. There is no way that any contextual factors have direct connection with the firm's economic performance indicators. This finding is consistent with Ratanasithi and Hemphill's (2006) only that theirs using anticipated long-term export performance measures.

As for the second theoretical issue, this research's finding shows that there are two valid components of export performance, non-economic and economic ones, of which having

directional relationship from the former to the latter consistent with Thorelli's (1967) unilateral relationship between different components of a construct.

Unfortunately, unlike what Ratanasithi and Hemphill (2006) found with anticipated long-term export performance measures, it is obvious that the determination of the set of long-term goals of export manufacturing firms from Thailand is divorced from any contextual factors, no matter whether they are strategic, environmental, or organizational resource factors. This means that these exporters do not at all take in to account any important antecedents when formulating of long-term targets and their financial consequences. Yet, this finding is not far beyond expectation since it has been widely believed in Thailand that The Thai is short-term oriented as stated by a renowned Thai business tycoon, Mr. Bantoon Lamsum, in a lengthy interview by a popular TV program. Thai exporters might be just preoccupied with current ad hoc performance figures, and engaged in manipulating their strategies for short-term satisfactorily results sacrificing long-term ones. They might not even recognize the existence of or intentionally formulating long-term targets and financial consequences and live with the present in a vicious circle consistent with what Lages and Montgomery (2001) also pointed out occurring with Portuguese SMEs exporters.

Once Thai exporters are not cautious of the long-term perspective, they do not have concern of the long-term impact of any challenges either internal or external to them and of long-term consequences of any strategies they adopt. Like Portuguese SMEs exporters, they just manage current strategies based on immediate past performance to enjoy improvement of current financial results (Lages and Montgomery 2001).

This study's findings thus do not provide support for any prestigious theoretical grounds positing theoretical influences of determinants of export performance. They do not provide support for trade and development economics theories (e.g. Schumpeter 1952, Porter 1990, Hunt and Morgan 1995, and Stiglitz 2003) that focusing on the role of government in providing support infrastructures, industrial organization theories (e.g. Shearer 1980) that focusing on the importance of environmental factors. Neither this study provides support for resource-based theories (e.g. Barney 1986) emphasizing organizational factors. It does not support strategy theories (e.g. Minzberg 1987; and Eisenhardt and Sull 2001), export marketing mix theory (Bilkey 1987), export performance and export strategy literature (e.g. Cavusgil, Zou, and Naidu 1993; Zou *et al.* 1997) which endorsing the role of strategies. These findings might well be contributed to the fact that The Thai is short-term oriented and that such cultural value influence

their export operation, as postulated by Schneider and Barsoux (1997) and Usunier (1996), pinpointing only on short-term results.

Two other interesting findings glaring from this study are evidences relevant to export marketing adaptation strategies and to barrier constructs.

For the first one, this study finds that those marketing mix strategies relevant to the Thai exporters are product and price adaptations. This finding is consistent with those found in the export literature, e.g. Chao *et al.* (2004), and Lee and Grifith (2004). Yet, unfortunately these strategies do not show statistical importance as per their relationship with long-term export performance and between themselves. This study's findings are not consistent with results of testing the strategy-performance links usually found in the export performance literature, e.g. Zou and Stan (1998), Aulah *et al.* (2000), and Leonidou *et al.* (2002), since these studies did not depend on long-term export performance measures. This study at least proves empirically that total packages of the marketing mix might not be appropriate in certain context like studying of long-term export performance of manufacturing industries in developing economies and that the two most relevant are product and price adaptation strategies.

For the second one, it is found in this study that there are two distinct components of export barriers, i.e. those occurring external to the firm and those relating to firm's resources, hindering the export manufacturing firms of Thailand. This finding is consistent with Ratanasithi and Hemphill's (2006) result and provides empirical support for development economics literature, Stiglitz (2002, and 2003) and export literature, e.g. Cuyvers (2004). It also extends Leonidou's (2004) taxonomy of export barriers comprising two factors of barriers occurring domestically and those happening overseas. This finding points out that these two barrier factors also have unilateral relationship wherein domestic export barriers exercise their positive relationship with those barriers internal to the exporting firms. It provides support for trade and development economics theories, e.g. Porter (1990), Stiglitz (1996), and UNCTAD (2002). This finding also suggests that macro-level constraints basically imposed by the government have transferred negative effects on firm resources; thus the higher level of macro impediments leads to the higher level of firm constraints.

The findings of this study suggest that skill-intensity of export manufacturing industry intervenes in the relationship of long-term export performance of the Thai export manufacturing firms. They provide support for trade and development economics literature positing the

important role of skill-intensity in governing international trade flow and affecting firm's export performance (e.g. Minford 1989 and Wood 1994). However, in this developmental economy context, not every of these micro-level links is influenced by skill-intensity but the link between the two long-term performance components and that between firm's internal weaknesses and long-term non-economic export performance.

This study provides empirical confirms and clarifies the important role of skill-intensity in dominating the export operation of firm as posited in both trade and development economic literature that skill-intensity of export manufacturing industry intervenes in the relationship between country resources and its export performance. However it has to be very cautious in interpreting the different results between the two skill industries recognizing the limited number of sample exporters in the skill industries and long to see future research with sufficient sample to justify the difference interpretation.

Theoretical Contribution

This study's academic endeavor of specifying and testing the long-term export performance model provides an empirical evidence of the relationship between these export performance outcomes and their determinants for the first time after direction of such endeavor has long been echoed in the literature.

There is no prior studies specifying and testing such a unilateral relationship between non-economic and economic export performance, they basically identified the two export performance components and simply model them without any directional relationship. Testing the long-term relationship, this study gets a very satisfactory result as discussed earlier when the two components have a strong positive relationship.

The chronic controversial links between adaptation strategies and export performance specifically regarding the relational direction seem to be somewhat conclusive in the long-term context when the relationship proved to be insignificant statistically. The null relational conclusive is also happen to the link between the barrier components and long-term non-economic export performance as well as the link between the two barriers and product adaptation strategy.

The other pioneering result of this study is the strong positive relationship between domestic and internal-firm export barriers. This link is also applicable particularly for the long-term context as test for the first time; while the two barrier components are hardly classified specifically for firms from developing economies such as did by this study.

The findings of intervening role of skill-intensity clarify theoretical argument in both trade and development economic literature that skill-intensity of export manufacturing industry intervenes in the relationship between country resources and its export performance. They suggest that skill-intensity of export manufacturing industry actually exercise its effect on firms' micro-level links. However, in this developmental economy context, not every of these micro-level links is influenced by skill-intensity but the link between long-term non-economic and economic export performance and that between internal-firm export barrier and product adaptation to strategic export performance and long-term non-economic export performance.

Practical Implication

The findings of this study as presented and discussed in the previous sections also provide several practical implications for export manufacturing firms from Thailand and possibly generalizable to other developing economies as proposed herewith.

The probably most important implication for long-run success of these export manufacturing firms is that the only way to achieve long-run excellent financial performance outcome, specifically satisfactory export sales and intensity, as always preoccupied with by them is to attain non-economic goals, i.e. expand strategically into export markets and doing this with competitive position. To be able to experience superb financial figures in the 5-year period to come, the exporters must be successful in expansion into potential export markets in which they must also have superiority over competitors. They thus must set and seriously commit to fulfilling these strategic targets as soon as they can without doubt or hesitation. These exporters can no longer waste time in compromising with any ad hoc corrections in pursuing these long-term goals for immediate desirable financial results. They must be patient to any emerging nuisance tempting them to adjust their long-term direction.

To be able to do this is not at all easy and might well be required government intervention in providing various incentives for firms bearing such long-term perspective to compensate for their less competitive in the short-run. More importantly a new business mindset or philosophy of adhering to the long-term results must be implant to the business community of which also requires governmental leadership. The exporters ought to believe in sacrificing some short-term excellent economic performances in exchange for their endured long-term prosperity.

Exporters must be selective and cautious in pursuing export marketing mix adaptation strategies since the findings show that not every export marketing mix adaptation is appropriate and that the more they adapt the poorer their performances are. They thus might consider standardizing their products in term of their function, design, and quality together with standardizing pricing scheme in term of charged price, pricing currency, and credit term. To be able to successful in standardization, the exporters must be able to identify standardization opportunity, i.e. export markets that they will benefit from scale economy by leveraging of domestic offerings. However, following these implications must be done with caution since the links between these strategic factors and long-term non-economic export performance are not statistically significant.

Also, to be able to strive for the long-term non-economic objectives, export manufacturing firms should consider identifying and eliminating export barriers internal to their organizations, specifically poor export products, poor productivity, and poor quality control. To minimize these internal firm export barriers, export manufacturing firms should also be able to identify and entrepreneurially avoid the effects of export barriers external to their firms, specifically red tape and lack of cooperation of government agencies.

Owing to the impediments caused by governmental concerns, the intervening role of the government is inevitable again. Government have to terminate or at least minimize the red tape processes and procedures in every of its agency. It also has to encourage cooperation among its agencies. In so doing government must boost morale of its officers especially operational level by improving their compensation packages and ensuring transparent promotion procedures so that incentives for corruption are minimized and finally terminated.

Government must also consider following long-term trajectory of Newly Industrialized Countries (NICs) by directing national resources toward the capital formations in the forms of physical, human, and social. Countries will then be able to be successful in exporting and achieve sustained economic growth in the long-run. Since trying to repeat NICs' success, most of developing countries are so preoccupied with wealth derived from exporting that they overlook the prerequisites of what NICs have done to be able to carry out export-led economic development policy; therefore have never achieved sustained growth and development.

Future Research Direction

Limitation posed on this study by small sample of skill-intensive industries encourages future research opportunity whereby increasing sample number will enable more interpretation of the role of skill-intensity.

Moreover, single period longitudinal data collection might not be enough for analysis of such long-term behavior of firm. Multiple period time series longitudinal data collection is encouraged for the future research, and hence the single level analysis with Structural Equation Modeling might not be appropriate for such complicate dataset wherein time series longitudinal structure causing hierarchical characteristics so in the future more advanced analysis method of Multi-Level Structural Equation Modeling is preferable.

Conclusion

This study's findings pioneer an understanding of the relationship between long-term export performances and their drivers and thus also help lead toward conclusive finding in export performance literature.

Export manufacturing firms from Thailand and other developing economies are suggested to actively incline toward long-term perspective and cautiously taking in to their consideration prioritized factors relevant to their long-term prosperity. Government is also convinced to contribute energetically and constructively in reducing national handicaps and shaping long-term competitive position of the exporters so that these export manufacturing firms can achieve sustained economic rewards and ultimately the economy as a whole prosperous sustainably.

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Appendix

Pools of Initial Measurement Indicators with their Sources and the Purified Measures of Modeled Constructs after EFA and Reliability Analysis

(Highlighted indicators are those remained after EFA and Reliability Analysis and the ones marked with asterisk are the final items of each construct)

Measurement Items of Economic Export Performance: 6 items

Measures	Description	Sources
SALE07	Export sales of **the year 2007 comparing with the year 2006**	Shoham (1998)
SALEIN07	Export sales intensity (ratio of export sales to total sales) of **the year 2007 comparing with the year 2006**	Shoham (1998)
PROF07	Export profit rate of **the year 2007 comparing with the year 2006**	Shoham (1998)
SALES07*	Satisfaction with export sales of **the year 2007 comparing with the year 2006**	Shoham (1998)
SALINS07*	Satisfaction with export sales intensity (ratio of export sales to total sales) of **the year 2007 comparing with the year 2006**	Shoham (1998)
PROFS07	Satisfaction with export profit rate of **the year 2007 comparing with the year 2006**	Shoham (1998)

Measurement Items of Non-Economic Export Performance: 14 items

Measures	Description	Sources
XPAN07*	Expand strategically into foreign market i.e. Expansion of export business for growth opportunity both in sales and profit in 2007	Cavusgil and Zou 1994
XPERIE07	Gain experiential knowledge about market and exporting process in 2007	Cavusgil and Zou 1994
COMP07*	Strong competitive position in 2007	Madsen 1998
PROFAB07	Increase the profitability of the company in 2007	Cavusgil and Zou 1994
PRDDEV07	Product development skills in 2007	Madsen 1998
INTSAL07	International sales capability in 2007	Madsen 1998
INTCHN07	New distribution competence in 2007	Madsen 1998
FOOTH07	Gain a foothold in the export market in 2007	Cavusgil and Zou 1994
GMKSH07	Improve our company market share position in 2007	Cavusgil and Zou 1994
BRNDEQ07	Establishing Brand Equity i.e. Communicating with target customers to create awareness and acceptance in brand in 2007	Styles and Ambler 1994
AWRIMG07	Building awareness/image overseas in 2007	Madsen 1998
CUSAT07	Customer satisfaction in 2007	Madsen 1998
LOYALT07	Customer loyalty in 2007	Madsen 1998
RESCOM07	Respond to competitive pressure in 2007	Cavusgil and Zou 1994

Measurement Items of Product Adaptation Strategy: 10 items

Measures	Description	Sources
PRDINITI	Initial product adaptation.	Cavusgil and Zou 1994
PRDSUBS	Subsequent product adaptation after entry.	Cavusgil and Zou 1994
PRDFUNC*	Product function.	Leonidou *et al.* 2002
PRDESIGN*	Product design.	Shoham 1999
PRDQUALI*	Product quality.	Shoham 1999
PRDWARAN	Product warranties.	Leonidou *et al.* 2002
PRDPOSIT	Product positioning.	Aulakh *et al.* 2000
PRDPACKD	Package design.	Zou *et al.* 1997
PRDBRDNM	Brand name in local language.	Zou *et al.* 1997
PRDNITEM	Number of items in product line.	Shoham 1999

Measurement Items of Price Adaptation Strategy: 7 items

Measures	Description	Sources
PRCMETH	Pricing method (e.g. market based pricing).	Koh 1991
PRCSTRAT	Pricing strategy (e.g. competitive vs premium price).	Myers *et al.* 2002
PRICECHR*	Price charged	Shoham 1999
PRCURREN*	Pricing currency	Shoham 1999
PRCPMTSE	Payment security	Shoham 1999
PRCRDTRM*	Credit terms	Shoham 1999
PRCQUOTE	Quotation method	Koh 1991

Measurement Items of Domestic Export Barriers: 13 items

Measures	Description	Sources
BARVATRF	VAT and tariff imposed on imported raw materials and capital goods.	Qualitative Data
BARTRADF	Poorly organized trade fair by DEP.	
BARRAWMA	Lack of domestic raw materials.	
BARUPSTR	Undeveloped upstream/support industries.	
BARDEP	Poor services/personnel/ and philosophy of DEP.	
BARCORUP	Corruption of government officials	
BARPRSNL	Lack of qualified personnel: skilled labor, English ability, speed of work.	
BARREDTA*	Red tape and delayed in import process.	
BARCOOP*	Lack of co-operation between government offices.	
BARGVTIN	Government inefficiency in trade negotiation leading to disadvantage with trade counterpart	
BARDLAW	Out of date laws and regulations.	
BARTHIBR	Thailand Brand does not help improve image.	
BARHIWAG	Higher wages.	

Measurement Items of Internal-Firm Export Barriers: 14 items

Measures	Description	Sources
BARCAPIT	Lack of capital.	Qualitative Data
BARPRICE	Lack of information to quote reasonable price for specific market.	
BARBRAND	Difficulty in convincing customers of buying our brands.	
BARPRDTV*	Poor productivity/ production control.	
BARQC*	Poor quality control.	
BARCOSTC	Cost control.	
BARR_D	Poor R&D/ raw material and product development.	
BARTECHN	Lack of new technology in production or operation	
BARPRDUC*	Poor product i.e. poor product quality, packaging, design, or function, to meet customer's needs or foreign product standard.	
BARCUSTS	Poor customer services system/ communication.	
BARMKTPL	Poor marketing plan.	
BARNEWCU	Difficulty in looking for new customers.	
BARBIZAL	Difficulty in looking for business alliance.	
BARADMIN	Poor internal administration and control.	

Output

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