EXPORT BARRIERS TO THE CHINESE MARKET: INSIGHTS FROM BRITISH COLUMBIA FOREST PRODUCTS FIRMS

by

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ABSTRACT

Canada's forest products firms have endeavored to develop the Chinese market as their alternative export destination. These needs became even urgent since the US economic recession in 2008. Reducing the export barriers that firms encountered will minimize their losses and enhance their export performance in the Chinese market. Through a questionnaire survey, thirty-four managers in British Columbia's forest products firms identified and evaluated the barriers that hindering their exporting to the Chinese market. The identified nine export obstacles include difficulties in finding business opportunities, skillful personnel and foreign representatives; differences in verbal, nonverbal language and socio-cultural traits, price competition and excessive transportation cost. The findings in this study also indicate that different parameters of firm size have different relationships with export barriers. In addition, different parameters of firm's export experience also show different relationships with export barriers. These findings will facilitate forest policy makers in British Columbia to formulate Chinese market export strategies, especially to target firms with different firm's size and export experience.

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Chapter One Introduction

1.1 Introduction

As the world's largest forest product exporter, every year Canada exports nearly 80% of its forest products to the United States (US). This heavy dependence on a single export market has raised widespread concerns regarding Canada's national economic security and stability. The softwood lumber dispute in 2001 further emphasized the needs to diversify Canada's wood product export markets. As the largest forest products producer and exporter among Canada's provinces, the forestry industry in British Columbia (BC) was severely affected in the softwood dispute in 2001. Moreover, BC is facing some critical challenges according to exporting forest products. The economic recession in the US market results in a decreased demand for BC wood products, the appreciation of the Canadian dollar hinders the exports, and the epidemic of mountain pine beetle further influences BC's timber product exports. Numerous mills have shut down, and thousands of workers in forest sector have lost their jobs under these circumstance. BC forest firms are eager to expand their exports to other overseas markets in order to compensate for losses in exports to the US market,

As the world second largest importer and consumer of various forest products, China has successfully attracted attentions of Canadian governments, trade promotion associations, and forest product firms. Canada's federal government has implemented a series promotional strategies geared towards exporting forest products to China during the past seven years (Natural Resource Canada, 2007). Besides actively participating into the series of trade promotion activities that hosted by the federal government, BC provincial government has also funded its own market initiative programs in 2003, in order to formulate market promotion

policies and expand provincial forest product exports to the Chinese market. Under these efforts, the forest product exports from BC to China have grown significantly in past years. By 2007, China has become BC's second largest export destination for various forest products. However, the exports of Canadian forest products only account for 6% of China's total forest products import in 2007 (Statistics China, 2007).

Many studies have been conducted to identify the export opportunities of Canadian wood products to the Chinese market in order to expand the exports. For example, Gaston and Mapleden (2003) studied the potential application of Canadian structural wood in the Chinese market, and Wahl (2004) evaluated opportunities of applying the BC lumber in China's re-manufacture industries. Similarly, Dickson Hall Associations (2006) investigated the potential market opportunities for BC's whitewood in China. These studies, though useful, only address the export opportunities of specific wood products in China. Ding (2007) even extended the typical range of research by investigating the attitudes of Chinese customers in regard to Canadian wood products. He found that high price, a lack of Canadian wood knowledge, different grading rules, and slow delivery were the main problems hindering the Chinese customers from purchasing and using BC forest products. However, so far, no study has ever measured the problems that Canadian forest firms perceive or encounter when they export timber products to the Chinese market.

Exporting is one of the most important methods for a firm to conduct overseas markets operation; however, firms always encounter various problems during their export procedures. These problems include identifying markets and collecting the relative information of the intentioned market in firms' exporting initiative stage (Bell, 1997). Export problems also include barriers such as firms' unable to provide the proper products to the desired market or

hard to collect payment from overseas customers which usually occur during export operation stages (Leonidou, 2004). Researchers also found that firms with export activities would encounter various export hindrances during their export procedure. Firms which do not conduct export would also perceive certain export barriers, which impede their further export market exploration. Both the real and perceived export barriers (EBs) restrict firms' export intensions, weaken their financial gains, and delay their globalization progression. The EBs may even cause a company temporarily or permanently withdraw from the overseas markets (Welch & Wiedersheid-Paul, 1980).

Leonidou (1995) defined the EBs as all those "attitudinal, structural, operational and other constraints that hinder the firm's ability to initiate, develop, or sustain international operations" (p. 31). Extant researches normally focus on identifying and weighing EBs in various nations and industries. The findings denoted that EBs identified in literature vary according to the geographic locations and industry sectors (Leonidou, 2004). These conceptual and empirical studies on EBs have identified approximately fifty EBs. By eliminating the geographic specific obstacles, thirty-nine barriers were found to be the relevant, meaningful and common that hindered firms from exporting (Leonidou, 2004).

In the EBs literature, efforts also conducted at exploring factors that affect EBs perceived by firms' managers. Past studies found that firm's organizational characteristics and firms' globalization affect the managers' perceptions of EBs. Some existing research results indicated that larger firms perceived less EBs than those smaller ones (Da Silva & Da Rocha, 2001; Katsikeas & Morgan, 1994; Leonidou, 2000). Firms with more export experience also regard certain EBs less impeditive than firms with less or no export experience (Bell, 1997, Leonidou, 2000). These can be explained as larger firms have advantage at human, financial resources,

and production capacity than those smaller one (Baldauf, Cravens, & Wagner, 2000), which made them easily to overcome some EBs. Moreover, firms with more export experience consider export problems to be more manageable and also more flexible at handling those export obstacles than those firms with less export experience (Madsen, 1989).

Previous studies, although insightful, have certain limitations. Firstly, most past studies concentrate on exploring EBs that US firms faced but other countries, firms in Canada received less attention. Chinese market as a new orientated export destination also got less attention. Also, little emphasis has been given to the problems faced by single industry exporters to single export destination, which may result a hasty and uncritical application of the generalized finding to other research contexts (Karelakis, Mattas, & Chryssochoidis, 2008). Moreover, in the limited studies connecting the firm size in relation with EBs, number of employees as a firm size parameter was widely examined, but other parameter of firm size, such as sales turnover received less attention.

Similar limitations have existed when testing export experience influencing EBs perception. Many studies have applied years of exporting in representing a firm's export experience but did not define the term of *years of exporting*. Katsikeas and Morgan (1994) and Da Silva and Da Rocha (2001) regarded number of years exporting as the number of years that a firm exported to a specific destination market in their studies, while the rest studies refer the number of exporting years to a firm's years of total exporting. So far, no study has compared the difference of the two parameters in relation with EBs.

1.2 Research Objectives

Given the importance of the Chinese market for BC's forest product exports, this study is designed to examine the EBs encountered/perceived by BC forest products firms according to

export to the Chinese market. Moreover, this study also intend to compare the correlation of two firm size parameters, number of employees and sales turnover in relation with the EBs, as well as two parameters of firm export experience, number of years exporting to all overseas markets and number of years exporting to the Chinese market, in relation with EBs as well.

The purposes of the study are: First, to identify and evaluate the EBs that BC forest products firms encounter in regard to exporting to the Chinese market. Secondly, to compare and contrast the relationships between EBs and different parameters of firm's size and export experience. Thirdly, to expand the geographic coverage in export barrier's literature.

1.3 Research Questions and the Hypotheses

The research questions and hypotheses are as follow:

Q1: What export barriers are perceived to hinder British Columbia forest products firms from exporting to the Chinese market?

Q2: Do different firm size parameters have the same relationships with export barriers?

Q3: Do different export experience have the same relationships with export barriers?

Two hypotheses:

H 1: Two parameters of firm size, number of employees and sales turnover, correlate differently with EBs.

H 2: Two export experience parameters, firm's total exporting years and firm's exporting years to the Chinese market, correlate differently with EBs

1.4 Thesis Outline

There are six chapters in this thesis. Following the first introduction chapter, Chapter Two provides a review regarding China's present and future demand for forest product imports, the current situation of BC exports forest products to the Chinese market. Chapter Three includes the literature of EBs, as well as the factors that affect the EBs that firms encountered. Chapter Four outlines the research methodology employed in this study. The results and analyses are then presented in Chapter Five. Finally, general conclusions, the implications, and the limitations of this study are presented in Chapter Six.

Chapter Two Background

2.1 China Plays an Important Role in Global Forest Products Market

China plays a dominant role in the global forest products market as the world's largest consumer, producer, exporter, and second largest importer (White et al., 2006). China's growing demand for forest product imports has greatly influenced the national economies and environments, especially those of forest product exports dependant countries and regions. Within a mere two decades, China has transformed from a self-sufficient nation to a country heavily reliant on importing forest products to support its continuously growing economy (Qin, 2007). The value of its total forest products imports rose from $6.4 billion US Dollar (USD) in 1997 to $25.1 billion USD (FAOSTAT, 2009). The major forest products that China imports include pulp, logs, lumber, and wood fibre (Tian & Xiao, 2007). Presently, China is the world's largest importer of softwood and hardwood logs, and fiber products. Countries exporting forest products to China include Russia, the US, Canada, New Zealand, Malaysia, and Indonesia, etc. (UNCED, 2008).

2.2 Factors that Stimulate China's Import Demand

Several factors contribute to China's burgeoning demand for forest products; however, China's astonishing economic growth is the main contributor (White et al., 2006). Since China conducted economic reform, its national economy has experienced unprecedented growth. China has maintained an annual gross domestic product (GDP) growth rate of over 9% since 1990, ranking as the fastest growing economy in the world. The rapidly expanding economy has diminished the nation's poverty, and stimulated the domestic demand for forest products. The burgeoning demand for wood applying in construction and interior decoration, as well as

demand for various paper products account for nearly 80% of China's total wood consumption (Sun, Wang, & Gu, 2004). In response to the increasing domestic requirement, the central government of China has encouraged the development of wood related industries since the 1990s. As a result, the wood manufacturing in China has gained significant growth, with both the largest number of wood processing corporations and the employees in the world (UNCED, 2008). For example, in 2003, China's plywood manufacturing capacity exceeded the US, becoming the world's largest plywood base. China also becomes the world's second largest paper/paperboard producer (White et al., 2006), accounting for more than 50% of the world paper and paperboard production growth rate annually (He & Barr, 2004).

The value-added wood products that made in China, such as furniture and plywood, have attracted not only the domestic consumption, but also tremendous demand from overseas markets. Demand has increased from both developed and developing countries for China's inexpensive wood products (White et al., 2006). Between 1997 and 2007, the export value of China's various value-added wood products rose from 3.7 billion USD to 10.8 billion USD (FAOSTAT, 2009). Moreover, in 2007, China's furniture exports value surpassed those of Italy, making China the largest furniture exporter in the world (Tian & Xiao, 2007).

Beside the economic factors, China's environmental protection concerns also stimulate its forest product imports. Even though China is the fifth largest country in terms of forested area, it is still a forest resource-scarce country relative to its 9.6 million square kilometer of the territory and over 1.3 billion habitants. The 6th Chinese National Forest Resources Survey (1999-2003) indicated that China has a total of 1.75 million square kilometers of forest area, however, its average forest coverage rate is 18.21%, 61.52% of the world average. China's proportion of forest coverage ranks the 130th globally, even lower than many developing

countries. The per capita forest area in China is less than one-fourth of the world average, and the per capita forest reserves only account for less than one-sixth of the world's average (The State Forestry Administration of China, 2005). Since the 1990s, China's domestic forests have not provided sufficient materials to meet China's growing demand for forest products in terms of both quality and quantity. Furthermore, the deforestation caused by over-harvesting in many forest regions was regarded as the main cause of severe flooding in China during the summer of 1998. In order to protect China's national forest resources and restrict the over harvesting, in 1998, China's central government implemented the Natural Forest Protection Program (NFPP) to restrict forest annual allowed cut, protect national ecological system, and encourage the forest plantation development in China. The NFPP has successfully protected the remaining forest resources in China, and regulated domestic harvesting practices. However, this program widened the gap between China's demand and supply in forest products (Bull & Nilsson, 2004; Zhao, Shao, Zhang, & Bai, 2000). As a result, China depended heavily on importing forest products to sustain its domestic demand and to meet export requirements for manufactured wood products (White et al., 2006).

Starting in 1990s, China's central government has gradually liberalized trade restrictions to encourage forest product imports and to prepare for entry into the World Trade Organization (WTO) (Hammett, Sun, & Barany, 2001). Between 1995 and 2007, the central government has totally reduced or eliminated import tariffs on 249 types of forest products (Tian & Xiao, 2007). The nation's policy supports combined with the economic growth, export orientation, and forest resources protection concerns have resulted the growing and continuing demand for imported forest products in China.

2.3 The Development of China's Forest Products Imports

China has maintained an average of 22% annual import growth rate in forest products imports during the past decade (Jiang, 2007). In addition, the composition of the major imported forest products has shifted gradually from value-added and finished wood products (wood-based panel, paper products etc.) to forest raw materials (logs, lumber, pulp and waste papers etc). This transformation is indicative of China's increasing capacity for timber manufacturing. Today, logs, lumber, paper pulp, and waste paper imports make up 65% of China's forest product imports (Jiang, 2007).

Logs and Lumber

Logs (roundwood), both softwood and hardwood, are China's major imported timber product, making China the world's largest roundwood importer. Most of these imported logs were processed into lumber, wood-based panels, and other value-added wood products to supply China's domestic market and export globally. The value of China's roundwood imports quintupled from $1.27 billion to $5.88 billion USD between 1997 and 2007, a jump from 10% to 23% of China's total forest product imports value (FAOSTAT, 2009).

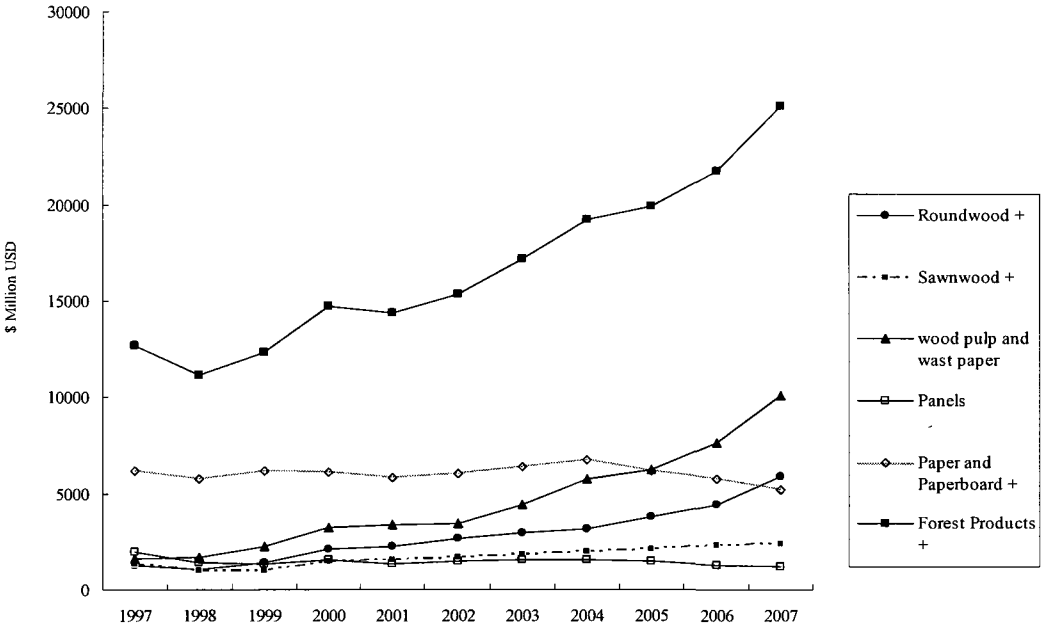
China imports forest products from all over the world, but Russia is China's main supplier of forest products. In 2006, over half of China's overall timber product imports were from Russia, accounting for two-thirds of China's log imports (Northway & Bull, 2007)). Nevertheless, the roundwood supply is shrinking in the world forest market. The export tariff of Russia's logs has increased gradually since 2007, causing a decrease of Chinese demand on industry roundwood imports in both 2007 and 2008. In addition, other countries that export industry roundwood to China, such as Malaysia, Indonesia, and Papua New Guinea, were also either reduced their log export volumes or added restrictions to their raw log exports due to the

insufficient domestic resources in these countries and the reduction of illegal log exports concerns. Moreover, the increasing global transportation costs have made the importing roundwood less cost-effective (Lankin, 2007). As a result, China has slowly shifted its imports focus from logs to lumber.

Compared to logs, the price of lumber remained stable in the global forest market. The price of imported logs increased an average of 24%, while the price for imported lumber grew only 5.6% in 2008. As a result, Chinese customers' preference shifted from importing roundwood to importing lumber. China's lumber (sawnwood) imports have experienced stable growth over the past decade, growing from $1.36 billion in 1997 to $2.38 billion USD in 2007. Russia and the US were China's major sawnwood suppliers in 2007, making up 27% and 15% of China's total lumber supply respectively, followed by Canada, Thailand, and Malaysia (ITTO 2008).

Pulp and Paper Products

China's imports of wood fibre products have experienced continual growth since 1997. Between 1997 and 2007, the value of wood pulp imports increased from $1.26 billion USD to $5.9 billion USD, and the import volume increased from 2.56 billion tonnes to 9.28 billion tonnes (FAOSTAT, 2009). In contrast, imports of paper and paperboard decreased from 10.6 billion tonnes to 7.82 billion tonnes during the same period. In 1997, paper and paperboard imports accounted for 50% of China's total forest product imports; however, it dropped to only 20% of the total in 2007 (Figure 1).

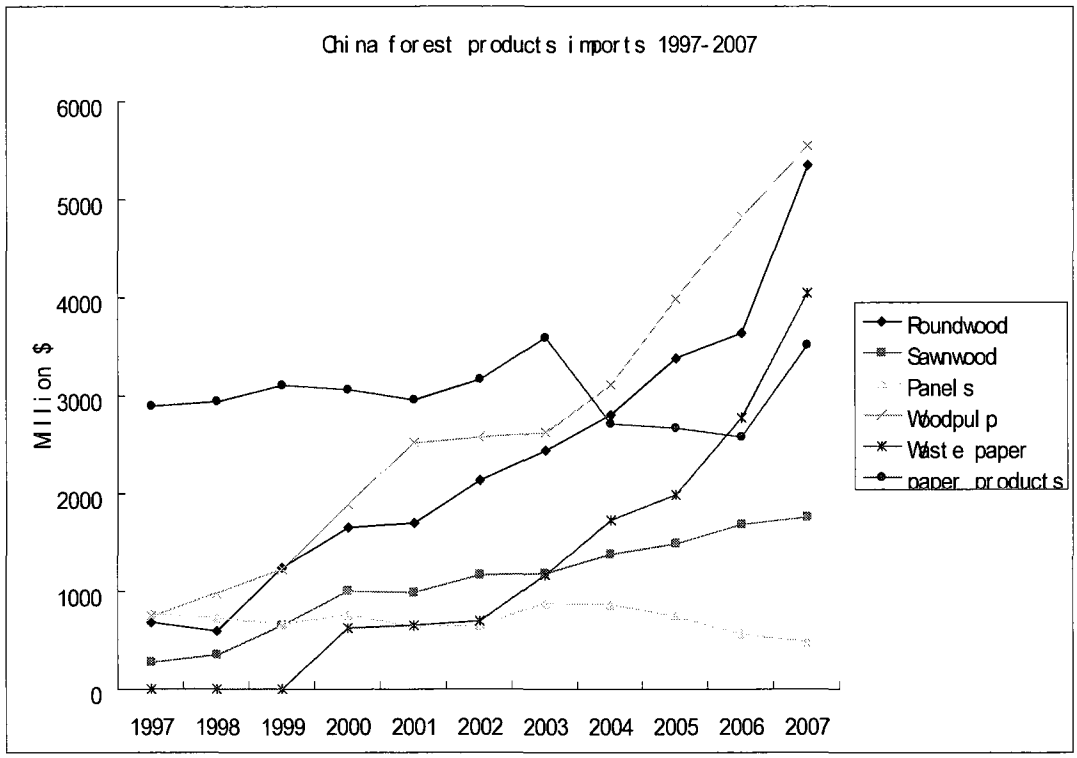


Data source: Extracted from FAOSTAT, January 2009.

Figure 1. China's major imported forest products (1997-2007)

Wood-Based Panels

China's imports of wood-based panels has also experienced rapid growth before 2003 but diminished quickly because of China's increasing manufacture capacity at wood-based panels. In 1997, the total import of wood-based panels reached $2.15 billon USD, accounting for 17% of China's total forest products imports in 1997. However, in 2007, the import of wood-based panels decreased to $1.26 billion USD, accounting for only 5% of China's total imports of forest products (FAOSTAT, 2009). The sharp decline of wood-based panel imports displays China's fast development in China's wood processing industry. Nowadays, there are over 6000 wood-based panel factories in China, and China is the top producer of plywood, hardboard, and MDF. It has surpassed the US to become the largest plywood exporter in the world (Dai, Liu, & Yu, 2007) (see Figure 2).



Data source: (FAOSTAT 2009 January)

Figure 2. China's imported wood-based panel (1997-2007)

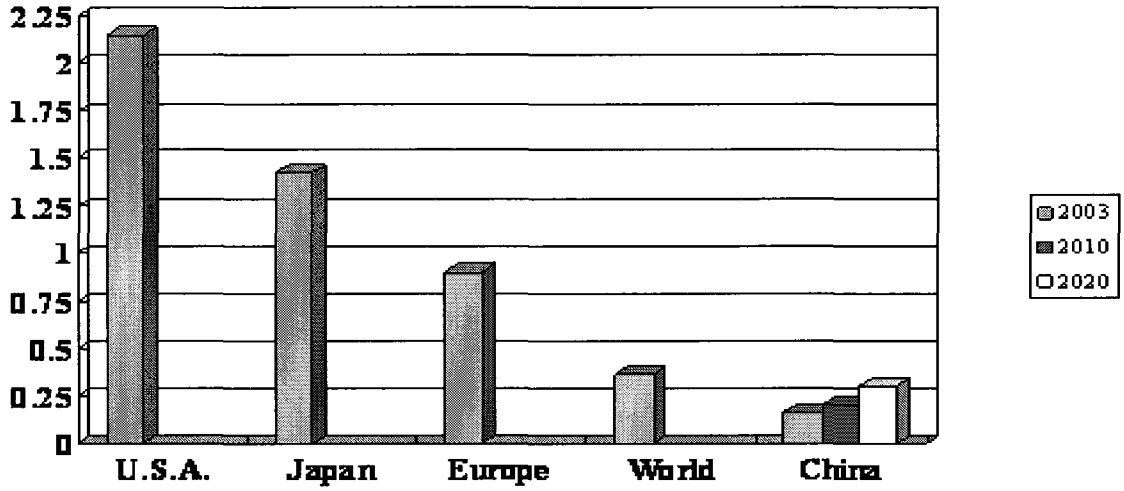
2.4 Future Prospects of China's Timber Product Imports

Past studies have forecasted that China's demand for importing forest product would continually grow in the next two decades because of China's economic growth, export demand (Sun, Wang, & Gu, 2004; White et al., 2006; Zhang & Buongiorno, 1997), and the insufficiency of domestic forest resources (Bull & Nilsson, 2004; Zhao, et. al, 2000).

China has maintained an annual forest products consumption rate of 10 million m^3 over the past two decades meanwhile China's average GDP growth rate was over 9% per year (Tian & Xiao, 2007). The International Monetary Fund (2005) forecasted that China's national

economic growth rate would remain at 8-9% over next decade, although lower than the previous two decades. The urbanization rate in China has increased from 20% to 40% between 1979 and 2001. The World Bank (2005) has predicted this rate will reach 60% by 2020 if China continues the expected economic growth rate. These predictions indicated that China would continue its consumption of forest products for housing construction, interior decoration, and various types of paper and paperboard.

Figure 3 shows that by 2003, Chinese per-capita consumption of forest products was 0.162 m^3, while the per-capita forest products consumption in the US, Japanese, Europe and world averages were 2.248 m^3, 1.427 m^3, 0.905 m^3, and 0.364 m^3 respectively. Jiang (2007) predicted that the consumption of forest products would increase to 0.204 m^3 and 0.304 m^3 per capita by 2010 and 2020 respectively, nevertheless, the per capita consumption of forest products in China is still be lower than the world averages and lag behind the present consumption of those developed countries. Therefore, the long-term demand for wood will remain strong in China (Jiang, 2007).



Unit: m^3/capita

Data source: (Jiang, 2007)

Figure 3. Comparison of capita consumption of forest products between China and selected regions and World

Several factors indicate that China will continue exporting low-cost and value-added wood products worldwide. First, during China's urbanization, the untapped rural labor force will flow into the big cities, which will provide sufficient low-cost labor for China's wood processing industries (Dai et al., 2007). The low-cost labor force will guarantee China's competitiveness in the global wood trade market by maintaining the inexpensive value-added wood products. Second, the Chinese government encounters constant pressures to provide sufficient jobs for its populous residents in order to maintain social stability and reduce the unemployment rate. The labor-intensive wood-processing industries well meet this demand (Yang, Leone, & Alden, 1992; Zhang & Gan, 2007). In addition, China has to maintain the capacity of its wood processing industries to provide value-added wood products for both domestic and overseas demand.

Even though the Chinese government implemented the forest plantation program to supplement China's domestic resources, researchers predicted that China domestic wood supplies are still insufficient (Bull & Nilsson, 2004; 2007; Jiang, 2007; White et al., 2006). In order to increase China's wood supply and transform China into a self-sufficient forest nation, China has invested $1.7 billion USD to establish a fast-growth and high-yielding trees plantation, which would be the world largest silvicultural program with 13.33 million hectares forested land (Bull & Nilsson, 2004; 2007; White et al., 2006). However, even with this plantation, Bull and Nilsson (2004) predict that China's domestic supply still cannot meet its demand in the next two decades (Kunshan et al., 1997; Poyry, 2001; Xu & White, 2004). Northway and Bull (2007) further forecast that over the next 25 years, China's forest products supply is expected to reach a maximum of 245 million m^3, triple the volume recorded in 2005. Nevertheless, the domestic forest demand is predicted to reach 952.8 million m^3 by 2030 (including pulp and recycled paper products), however, only less than half of this demand will be met by China's domestic forest production. Jiang (2007), and Tian and Xiao (2007) applied different methods to forecast China's forest demand in 2010, 2015, and 2020, and the results coincident with those of Northway and Bull (2007). All these studies suggest that China will continually depend on importing forest products to fill the gap between its domestic demand and supply.

2.5 Canada Exports Forest Products to China

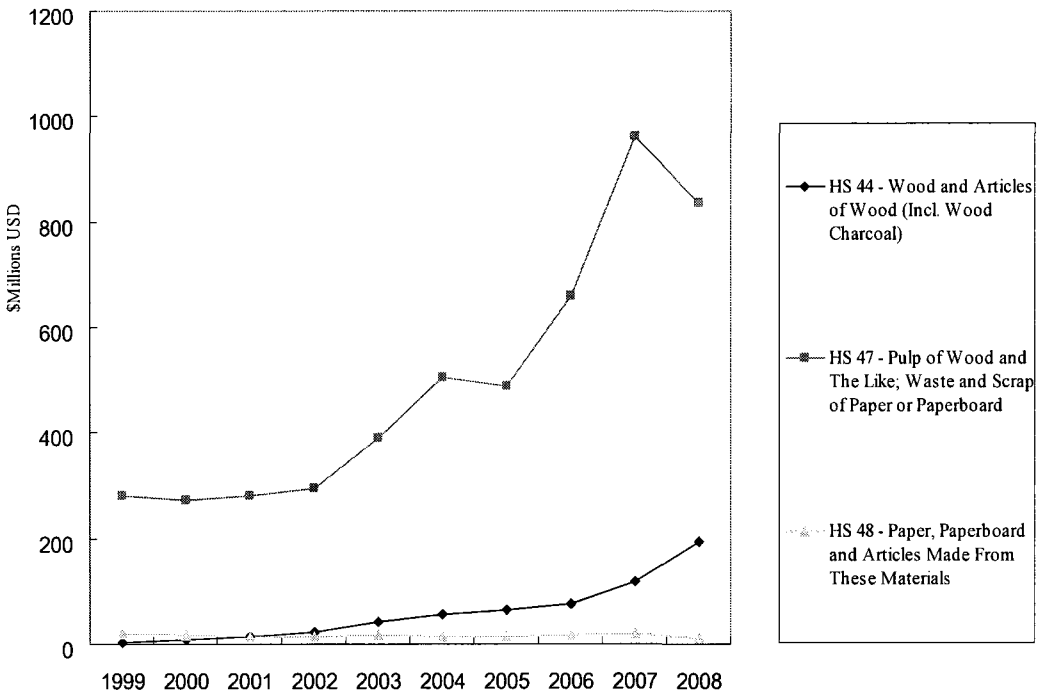
Canada's forest products industry plays an important role in the national economy. The forest sector provides over 340,000 jobs, and over 300 communities are economically dependent it. Canada is also the world's largest forest product exporter, with nearly 80% of

exported forest products being shipped to the US annually. This heavy dependence on a single export market has raised widespread concerns from federal and provincial governments, commerce organizations, and the public regarding national economic security stability (Goldfarb, 2006). These concerns were highlighted by the 2001 softwood lumber dispute between Canada and the US. Moreover, recently Canada forest products industry encountered aggressive competition from other low-cost lumber exporters, and the profits from forest products industry diminished. In order to respond to these challenges, Natural Resources Canada and the Canadian forest products industry have worked together effectively since 1999 to diversify the export markets in order to increase the stability and competitiveness of Canada's forest products industry in the global forest market (Natural Resources Canada, 2007).

Of the many market promotion activities, Canada Wood Export Program (CWEP) is one of the largest integrated programs that tasked with expanding and diversifying Canadian wood product exports. In 2001, sponsored by federal government, Natural Resources Canada initiated the CWEP to respond to the challenges confronting the forest sector. By 2007, CWEP has invested a total of $35 million Canadian dollar (CAD) to brand Canada's wood products, increase product knowledge and acceptance, and improve the access of Canada's wood products to the offshore markets (Natural Resources Canada, 2003). The CWEP not only encourages the maintenance Canada's traditional export markets such as the US, Japan, and Europe countries, it also promotes to explore the emerging markets like China, Korea, Taiwan, and India (Natural Resources Canada, 2007).

These efforts have resulted in a substantial increase of forest product exports to China. China has surpassed Japan and the European Unions in 2003, becoming Canada's second

largest forest products export market. The exports of forest products value tripled from $424.11 million USD in 2001 to $1557.22 million USD in 2008. The exports of pulp and waste paper remained Canada's leading forest product exported to China, increasing from $381.51 million USD in 2001 to $1317.54 million USD in 2008. The exports of paper and paperboard remain stable, increasing slightly from $21.92 million to $31.14 million between 2001 and 2003, and then decreased to $20.56 million USD in 2008. The diminishing of paper and paperboard products reflects the growth in China's paper manufacturing capacity in the past decades (See Figure 4).

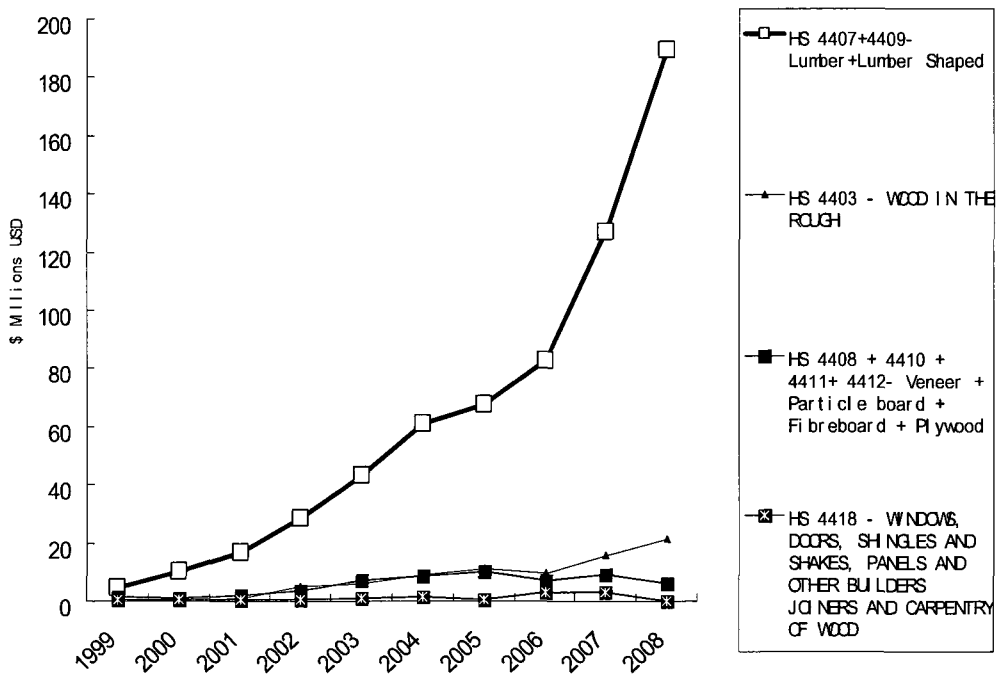


Data source: Industry Canada, Extracted in May 2009.

Figure 4. The major forest products that Canada exported to China (1999-2008)

The value of lumber exports to China rose from $16.61 million USD in 2001 to $189.51

million USD in 2008, demonstrating a ten-fold increase in the past seven years. The value of exports raw wood products also grew from $1.20 million to $21.42 million USD from 2001 to 2008. In addition, exports of wood-based panels, which include veneer, particleboard, fiberboard and plywood increased from $2.21 million USD in 2001 to $5.95 million USD in 2008 (See Figure 5).



Data source: Industry Canada, May 2009.

Figure 5. The major wood products that Canada exported to China (1999-2008)

2.6 British Columbia Exports Forest Products to China

BC's forest products industry plays a more important role than in any other province in terms of provincial economy. Over two-thirds of BC's land is forested, and the forest related industries have traditionally accounted for one-third of provincial revenue. The forest product industry was the single major industry for BC before 1980s. However, the impact of BC's

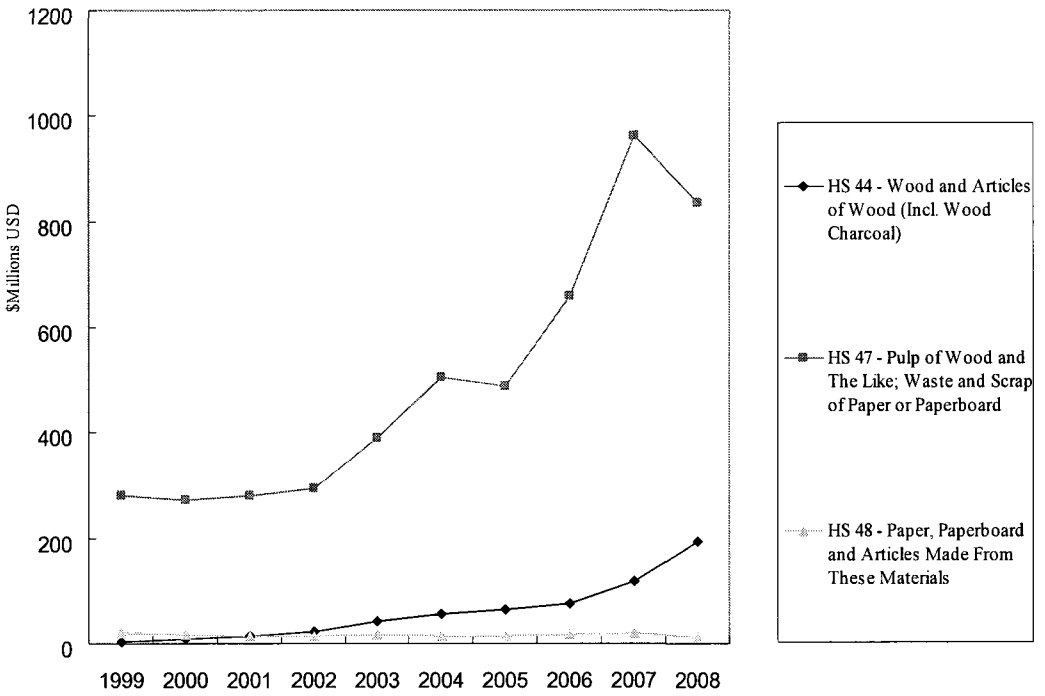
forest industries to the provincial economy has diminished over the last several decades (Natural Resources, 2006).

As Canada's largest forest product exports province, BC government is interested in diversifying its forest product exports to overseas markets, especially to the Chinese market. Beside actively participated into CWEP, the provincial government also initiated a Forest Investment Initiative (FII) program in 2003, endeavouring at reducing its export dependence on the U.S. market and expanding its forest product exports to other overseas markets.

Through the continue efforts, the exports of BC forest products to China has shown remarkable increase. The value of exports forest products to China increased from $308.56 million USD in 2001 to $1039.26 million USD in 2008. Specifically, exports of pulp and wast paper lead the growth, rising from $271.92 USD to the top of $960.39 million USD in 2007, this value, however, dropped to $836.15 million USD in 2008. The total exports value of BC forest products to China tripled over the past seven years. Exports value of raw wood products rose continually from $14.90 million USD to $192.81 million USD. The export values of paper and paper products decreased from $13.79 million USD in 2001 to $10.31 million USD in 2008 (See Figure 6).

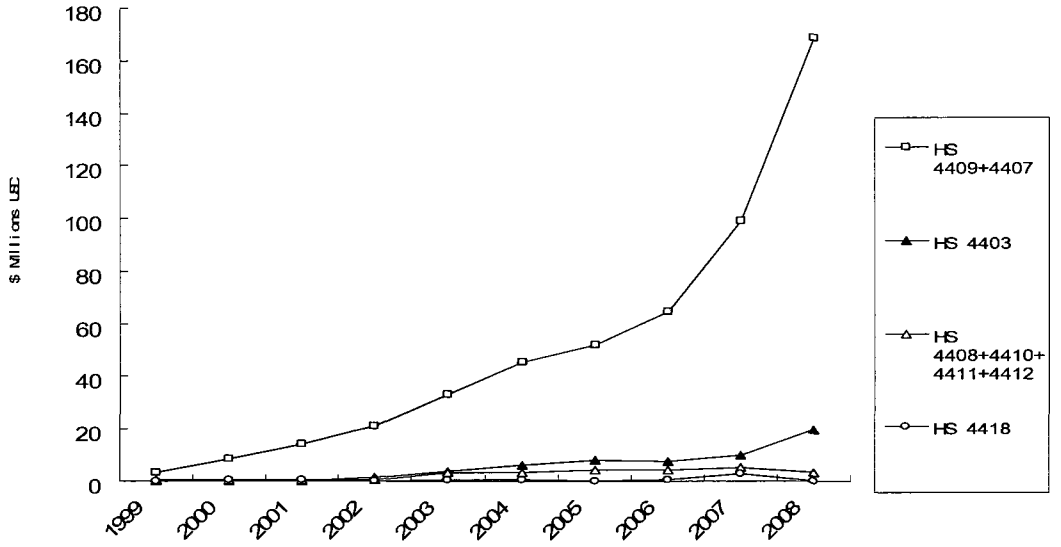
In regard to wood products exports to China, lumber products showed the fastest growth, exports value increasing from $13.86 million USD to $168.93 million USD from 2001 to 2008, ten times increased in the past seven years. The raw wood exports also gained significant growth, raised from $0.21 million USD in 2001 to $19.67 million USD in 2008. The aggregate value of exports wood-based panels also grew slightly, increasing from $0.49 million USD in 2001 to $3.22 USD. The exports of secondary wood products, such as windows and doors, increased from $0.27 million USD in 2001 then decreased to $0.18 million in 2008 (see Figure

7).



Data source: Industry Canada, May, 2009.

Figure 6. Major forest products that BC exported to China (1998-2008)



Data source: Industry Canada, May, 2009.

Figure 7. The value-added wood products that BC exported to China (1999-2008)

Chapter Three Literature Review

3.1 Export Barriers

Since the world globalization in the 20th century, many firms have engaged in international business. Among all the cross-boundary business activities, such as direct investment, joint enterprise, etc., exporting is believed to be the most common and effective mode of cross-boundary commerce because it requires relatively little investment, demands little resource commitment, produces minimal business risks, and possesses high flexibility in terms of business location (Root, 1994). Exporting can result in firms' product innovation, better utilization of capacity, skills development, and business performance improvement (Bertschek, 1995). Exporting can also induce a nation's productivity performance, increase domestic employment rates, and improve foreign exchange accumulation (Sharpe, 1995).

Despite the benefits derived from exporting, entering into and operating in an overseas market can be difficult. Firms often encounter obstacles that hinder their export performance (Bauerschmidt, Sullivan, & Gillespie, 1985; Zhang & Buongiorno, 1997). These obstacles refer to all the barriers that dissuade a firm from exporting or hindering firms actual export activity (Sonia, 2003). Leonidou (1995) described the EBs as those "attitudinal, structural, operational, and other constraints that hinder the firms' ability to initiate, develop, or sustain international operations" (p. 31). Scholars and practitioners stated that understanding and minimizing these difficulties will effectively assist the success of a firm in international markets, as well as accelerate the global internalization (Douglas & Graig, 1991; Levitt, 2005; Naisbitt, 1984).

The literature on EBs dates back to the mid-1960s (Groke & Kreidle, 1967), and has

increased substantially since then, with particularly prevalence of studies in the 1980s and 1990s (Leonidou, 2004). The majority of the export barrier literature in the past is site specific, focusing on firms in the US industry sectors. Recently, increasing studies explored EBs that firms encountered in countries such as Cyprus (Leonidou, 1995b, 2000), Spain (Suzrez-Ortega, 2003), Greece (Katsikeas & Morgan, 1994), and Brazil (Da Silva & Da Rocha, 2001). Such studies demonstrated that firms in difference countries tend to emphasize barriers differently due to their different cultural, economic, location and industry characteristics etc (Styles, 1998; Zou, Talor & Osland, 1998). The plethora of conceptual and empirical studies on EBs has identified approximately fifty obstacles. By systematically exacting, collating, and consolidating the existing information, Leonidou (2004) concluded that only 39 "relevant, meaningful and common" barriers effectively hinder companies from exporting (p. 282).

Many researchers have classified EBs into groups for analysis purposes. Normally, EBs are divided into internal and external groups by the origin of the obstacles (Sullivan & Bauerschmidt, 1989; Yang et. al. 1992). Internal barriers are intrinsic problems that are normally associated with a firm's insufficient organizational resources. External barriers are related to the home and host environment, and encompass a firm's operational processes (Leonidou, 1995). According to the barriers' functions, Leonidou (2004) further broke down the internal barriers into informational barriers, functional barriers, and marketing barriers; he also separated the external barriers into procedural barriers, governmental barriers, task barriers, and environmental barriers for analytical purposes (see Figure 9).

3.1.1 Internal Barriers

During export procedures, firms always encounter problems that related to inadequate

information and knowledge. The information barriers hinder firms from identifying, selecting and contacting international markets (Katsikeas, 1994; Katsikeas & Morgan, 1994; Morgan & Katsikeas, 1997). Aharoni (1966) first raised this issue, stating that a lack of information of foreign markets would hinder firms' further endeavour in the international business. Pavord and Bogart (1975), and Bilkey and Tesar (1977) found that in initial stage of export, firms often faced difficulties in identifying business opportunities within foreign markets. Four barriers were included in this category: limited information to locate or analyze foreign markets (Katsikeas & Morgan, 1994; Leonidou, 1995, 2000; Yang et al., 1992), problematic international market data (Czinkota & Ronkainen, 1995), issues associated with identifying foreign business opportunities (Korth,1991), and the inability to contact overseas customers (Kedia & Chhokar, 1986).

Functional barriers refer to inefficiencies of human resources, production, and finance which would hinder enterprises from exporting (Vozikis & Mescon, 1985). Barriers in this category include limited managerial time to deal with export related issues (Vozikis & Mescon, 1985), inadequacies in export experienced personnel (Gomez-Mejia, 1988), a lack of production capacity, and shortages of working capital (Bauerschmidt et al., 1985; Bilkey, 1978; Keng & Jiuan, 1989).

Marketing barriers consist of sixteen EBs that related to products, price, marketing, and products distribution in foreign markets (Kedia & Chhokar, 1986; Moini, 1997). Five obstacles are related to problems that exporters encounter when their products enter the international market. These barriers include developing new products for foreign markets, adapting export product design/style (Bauerschmidt et al., 1985), meeting export-product quality standards/specifications (Bilkey & Tesar, 1977), meeting export packaging/labeling

requirements, and providing technical / aftersales service to customers (Leonidou, 2004). Price barriers are related to difficulties that firms face when assigning prices to their products in exporting destinations. These barriers include offering satisfactory prices to customers, matching competitors' prices, and granting credit facilities to foreign customers (Leonidou, 2004). Other barriers are specifically related to the distribution of a product to foreign market. These barriers include complex foreign distribution channels, hard to access export distribution channels, unable to obtain reliable foreign representation, and hard to control foreign middlemen (Kaynak, Ghauri, & Olofsson-Bredenlow, 1987; Kedia & Chhokar, 1986; Rabino, 1980). Supplying inventory to overseas markets, unavailable foreign warehousing facilities, and excessive transportation/insurance costs (Barker & Kaynak, 1992; Kedia & Chhokar, 1986) are three barriers related to logistic barriers that firms faced. Lastly, firms also encounter promotional barriers when they try to establish advertisement campaigns that gear toward exporting goods to foreign markets (Leonidou, 2004).

3.1.2 External Barriers

Procedural barriers are hindrances that firms confront during their export procedures. These barriers are associated with establishing a relationship with foreign customers. Issues that commonly need to be addressed include unfamiliarity with techniques/procedures documentation (Diamantopoulos, Schlegelmilch, & Allpress, 1990; Kedia & Chhokar, 1986; Sharkey, Lim, & Kim, 1989), problematic communication with foreign customers, and slow payment from abroad customers (Bilkey & Tesar, 1977; Kedia & Chhokar, 1986; Moini, 1997).

Governmental barriers pertain to the insufficient support that domestic governments

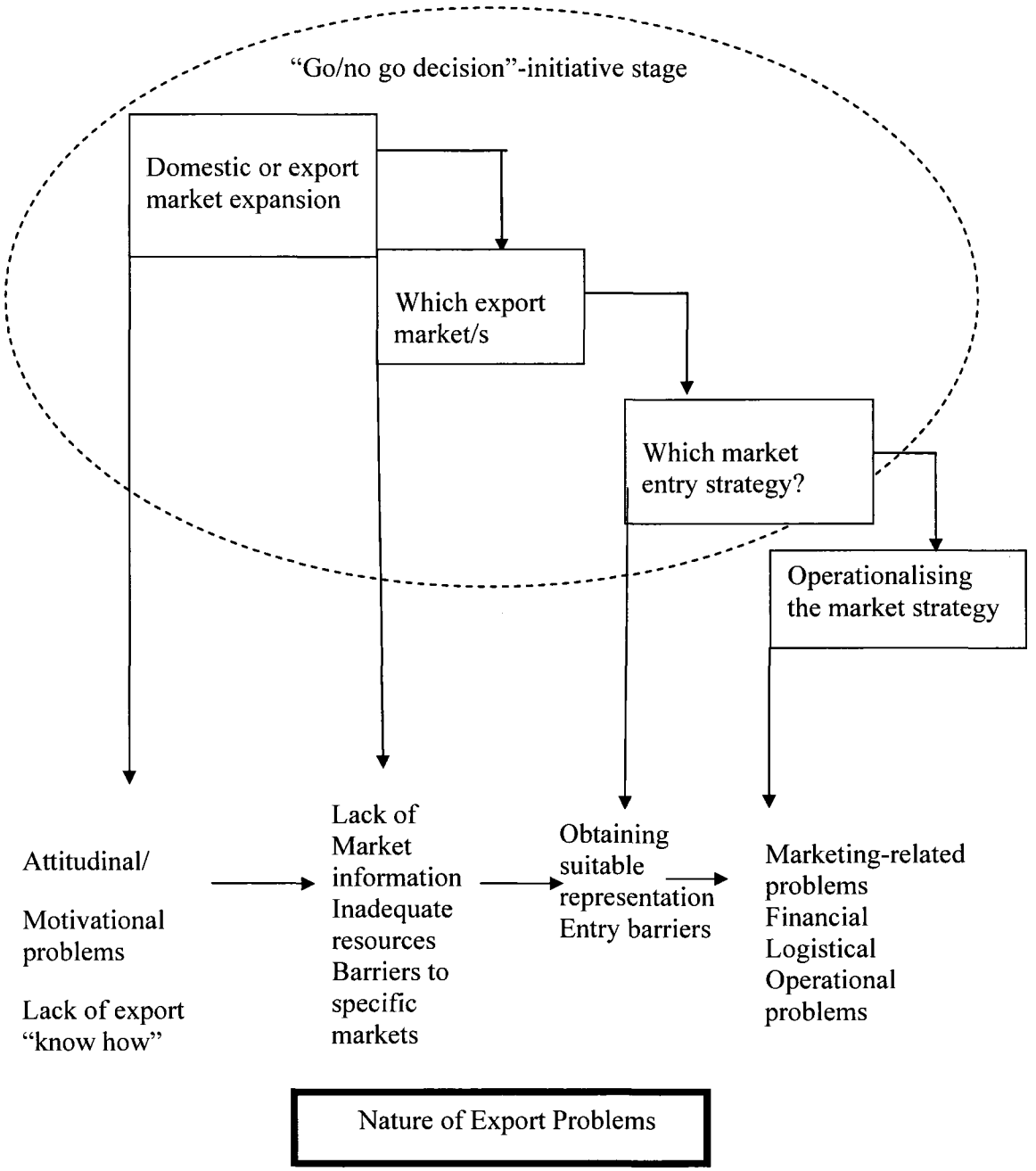
provide firms that want to export. These barriers include the lack of home government assistance, and strict home government rules/regulations.

Task barriers embody issues regarding the direct effects that overseas customers and competitors have on a firm's export operations. These include different foreign customers' habits or attitudes, and strong competition in overseas markets (Barrett & Wilkinson, 1985).

Environmental barriers refer to the economic, political, legal, and socio-cultural environment of the foreign market that the company is operating within, or is planning to explore (Kedia & Chhokar, 1986; Moini, 1997). Barriers in category include poor or deteriorating economic conditions abroad, foreign currency exchange risks (Karafakioglu, 1986; Kedia & Chhokar, 1986), political instability in foreign markets (Kaynak et al., 1987), strict rules and regulations of foreign countries, high tariff/non-tariff barriers (Barker & Kaynak, 1992; Bauerschmidt et al., 1985; Karafakioglu, 1986; Rabino, 1980), unfamiliar foreign business practices, different socio-cultural traits, and verbal/nonverbal language differences (Bauerschmidt et al., 1985; Diamantopoulos et al. , 1990).

3.2 Export Barriers in Export Stages

A firm's export behaviors is formulated through a series of sequential decision-making processes (Rosson & Seringhaus, 1991) and these decision-making procedures accompany the activities of export problems solving. Figure 8 displays the problems that a firm may encounter as well as the decisions mangers need to make during initiative stage and the operation stages of firm's exporting.



Source: Bell (1997)

Figure 8. The export barriers in a firm's initiative and operational export stages

In pre-export stage, managers always need to decide if firms should develop international

markets or expand its domestic market. At this stage, managers' attitude and motivation to export, as well as a lack of knowledge of how to export become crucial obstacles that hinder firms' exporting endeavours. Without solving these export obstacles, it is unlikely for firms to conduct export endeavors (Bell, 1997).

Having overcome these threshold barriers or at least recognize the need for international expansion, managers then face the problems that are related to which markets should export to. At this stage, a lack of intentioned market information can be the largest impediment for firms' exporting expansion. Moreover, the differences of cultural, economic, legal, or political in intentioned destinations may also prevent firms from choosing particular markets. In addition, an insufficiency of human resources and/or financial resources will also pose problems for firms to exporting (Bell, 1997).

After firms have selected their particular export destinations, firms also encounter difficulties in identifying and choosing suitable market entry strategy. At this stage, to obtain suitable representation and familiar to the overseas markets' regulation become the imperative tasks for the intentioned exporting firms (Bell, 1997).

When firms start exporting, they frequently encounter problems that relative with operationalising in the overseas markets, and monitoring performance problems in the target markets. At this stage, firms likely encounter problems related to managing export operations, such as setting appropriate export prices, standardizing or modifying products, communicating with customers, and solve a series problems related with logistical and financial problems, such as financial exports, currency fluctuation, delays in payment, and physical distribution obstacles etc.(Bell, 1997).

3.3 Factors that Affect the Export Barriers

In the EBs literature, researchers have also found that the EBs that firms encountered/ perceived vary according to firm size, export experience, industry type, and export destination.

3.3.1 Firm Size

Firm size has been reported to be associated to firm's exporting behaviours. Many existing studies have indicated that larger firms have a higher probability to export because larger companies possess relatively good financial foundation, sufficient personel resources, and a high capacity for production (Cavusgil, 1984b; Cavusgil & Naor, 1987; Korth, 1991; Moon & Lee, 1990). These advantages guarantee larger firms' better exporting performance compared to smaller size firms (Cavusgil & Naor, 1987; Reid, 1984). However, contradictory results were found in other studies, and showed no significant difference between largers and smaller firms based on their exporting performance (Abdel-Malek, 1978; Bilkey & Tesar, 1977; Czinkota & Johnston, 1983).

Many researchers have examined the relationships between firm size and EBs, and the results, in most cases, indicate that larger and smaller firms view EBs differently. Ghauri and Kumar (1989) found that managers of smaller firms perceived EBs as more significant problems than managers of larger firms. Katsikeas and Morgan (1994) tested the relationships between firm size and EBs in Greek food-exporting manufacturers. Their findings indicated that firm size is associated to some export obstacles that related to information attainment barriers, communication impediments, product adaptation problems, and logistical constraints four aspects. Da Silva and Da Rocha (2001) also conducted a similar test based on Brazilian companies exporting to Mercosur. They found that Brazilian larger firm faced more corruption

problems in both domestic and destination market than smaller firms.

Many of these studies applied number of employees as the indicator of firm size because researchers believe that all the firm size measures are highly correlated, especially within the context of a single industry (Gupa, 1980). Researchers have also indicated that respondents are more willing to provide employee' information than to release sales information due to the business security concerns (Katsikeas & Morgan, 1994). They also believe that employees' information is affected less by the price changing than sales' information does (Sharkey et al., 1989). Nevertheless, a study that compared different firm size parameters in relation to EBs found that number of employees and sales turnover have different effects on EBs. Smaller firms with few employees regard foreign market entry and operation as more impeditive. In comparison, firms with less sales turnover regard corporate resource constrains, environment barriers, and foreign market entry/operating difficulties as more significant (Leonidou, 2000).

3.3.2 Export Experience

Export experience is also viewed as a key factors that influencing the globalization of a firm. Researchers also believe that experience gained through previous export endeavours efficiently help firms reduce uncertainty and enhance firms' international performance (Ali & Swuerce, 1991). Madsen (1989) also found that experienced firms have more confident and positive attitudes towards foreign markets, therefore they consider some export problems to be more manageable than firms with less export experience.

A large number of studies have compared EBs in relation to exporters and non-exporter (e.g., Bilkey & Tesar, 1977; Leonidou, 1995; Tesar, 1975). Dichtl, Leibold, Koglmayr, and Mueller (1984) found non-exporters perceived more obstacles than exporters. A possible

explanation for this phenomenon is that managers who succeed in exporting usually hold a more positive attitude than those non-exporters. Leonidou (1995b) also indicated that non-exporters tended to overemphasize EBs when compared to experienced exporters. Yaprak (1985) believed that non-exporters' perceptions on export challenges were based on a lack of knowledge of foreign markets, limited foreign market contacts, and personnel inexperience. In comparison, exporters are more likely to be familiar with external EBs, such as red tape, slow payment collection, and bad economic conditions in foreign markets. Hook and Czinkota (1989) confirmed the previous studies, stating that non-exporters more frequently perceived EBs associated to their future export commitments (e.g. information requirements, foreign communication and management policy concerns). In contrast, exporters faced more impediments in their export procedures, such as a lack of finance capital, confusing product specification, and fierce competition in overseas markets.

Katsikeas & Morgan (1994) compared less experienced exporters with more experienced ones in Greek food industry, the findings showing that less experienced exporters witnessed more problems pertaining to the dimensions of national export policy and procedural complexity. By contrast, more experienced exporters perceived export pricing constraints as significant. Leonidou (2000) indicated that export experience affected EBs in relation to corporate resource constraints, environmental difference, export bureaucracy/legislation, governmental differences, government apathy, and foreign market entry/operating difficulties five aspects. Novice exporters perceived these five aspect barriers as more impeditive than experienced firms. Da Silva and Da Rocha (2001) found that Brazilian experienced companies perceived political and economic constraints, as well as corruption constraints as more significant than those less experienced firms according to exporting to Mercosur.

Many variables have been used to measure export experience in the past studies but the number of exporting years is the most widely used variable (e.g., Bell, 1997; Da Silva & Da Rocha, 2001; Katsikeas & Morgan, 1994; Leonidou, 2000). However, years of exporting variable has not been clearly defined in the past studies. Some studies refer years of exporting as the amount of years that a firm has exported to a specific export destination. For example, Katsikeas and Morgan (1994) used the firm's specific export duration to Germany in his Geek food manufacture firms had been exporting German market. Da Silva and Da Rocha (2001) regarded export experience as the amount yeas that a Brazilian firm had been exporting to Mercosur. However, other studies (e.g., Leonidou, 2000) which did not specific a destination of export market tended to apply a general exporting term to represent export experience.

3.3.3 Industry Type

Much of the existing literature tends to cover a wide range of industry sectors in one study. Cross-sectional studies, as Reid (1981) criticized, fail to consider the sector-specific factors and likely results in biasing of the overall findings. The problems may even more severe when using small sample size to cover various types of industrial sectors in a single study (Leonidou, 1994). Early in 1978, Bilkey (1978) reported EBs varied according to industry type. Bodur (1986) and Kedia and Chhokar (1986) confirmed this results, finding significant differences in the barriers to exporting within different industries. Leonidou (1995b) advocated concentrating on a single industry in order to reduce industry influence on the conclusions. Since then, emerging studies have focused on one industry in order to gain a more robust understanding of EBs. These studies include Katsikeas and Morgan's study of EBs that Greek food-manufacturing firms perceived when exporting to Germany (1994), as well as

other similar studies (Bauerschmidt et al., 1985; Suarez-Ortega, 2003; Sullivan & Bauerschmidt, 1988).

3.3.4 Export Destination

Previous studies used to address the overseas markets as an integrated market and explore EBs that firms encountered to all their export destiatnion. However, Leonidou (1995) argued that the ignorance of the diversity of economic structure, political and socio-cultural, government infrastructural, and logistical systems in various overseas markets may lead to a bias in EBs perceptions. Moreover, to treat all export destinations as a universal market would only obtain some average assessment of the obstacles perceived in various countries (Gripsrud, 1990). For example, Bodur (1986) found firms in Turkey perceived different EBs in exporting to Europe and to the Middle East. Karakaya (1993) also found an association between EBs and export destination. Leonidou (2004) criticized that the application of the findings, which derived from general perceptions of EBs that firms perceived to all destinations, could hardly formulate a sound market development strategy to direct firms' performance in a particular market and unlikely produce any significant results. Based on the concerns of unrealistic perceptions of EBs, current research tends to target a single export destination. This site-specific approach aims to increase practicability of the results and reduce the blur created by evaluating various overseas markets as a universal unit. For instance, Katsikeas and Morgan (1994) studied the EBs perceived by Greek food-manufacturing industry exporting to Germany, Da Silva and Da Rocha (2001) explored Brazilian firms exporting to Mercosur, and Tseng and Yu (1991) examined Taiwanese exporting to the European market.

3.4 Export Barriers Studies in Forest Industry

Little research has been conducted on the forestry industry in an international export context. In the limited EBs studies that focused on forest industry, most of the studies have concentrated on the US wood manufacturers, with the exception of a study that including British Columbia, Canada in a cross-national comparative study (Eastin, Cunningham, & Ross, 2004).

McMahon and Gottko (1988) and Gottka and McMahon (1989) depicted the attitudes and practices of lumber exporters and non-exporters in Oregon, US. They found that company size played a significant role in forest companies' export performance. Larger sized companies tended to be more involved in overseas market exploration than smaller companies whom were also found to hold negative attitudes towards export endevours. Ifju and Bush (1993) investigated the Eastern hardwood lumber industry in the US and found that non-exporting companies were unwilling to export because of their small business size and their satisfaction with the present domestic market performance. Hammett, Cubbage, and Luppold (1991) also found similar findings in their study. However, other studies, which examined hardwood lumber exporters in Kentucky, indicated that firm size had no significant influence on firms' international performance (Ringe, Graves, & Hansen, 1987a, 1987b).

Dickerson and Stevens (1998) studied hardwood product exporters in Michigan, and found that the most active exporters tended to be larger firms with a few years of operation experience in forest business. A cross-national study that conducted in Washington, Oregon, and British Columbia regarding exporting wood building materials to Japan indicated that the success of exporters were those firms with large firm size, shortened distribution channels, and diversified products (Eastin et al., 2004).

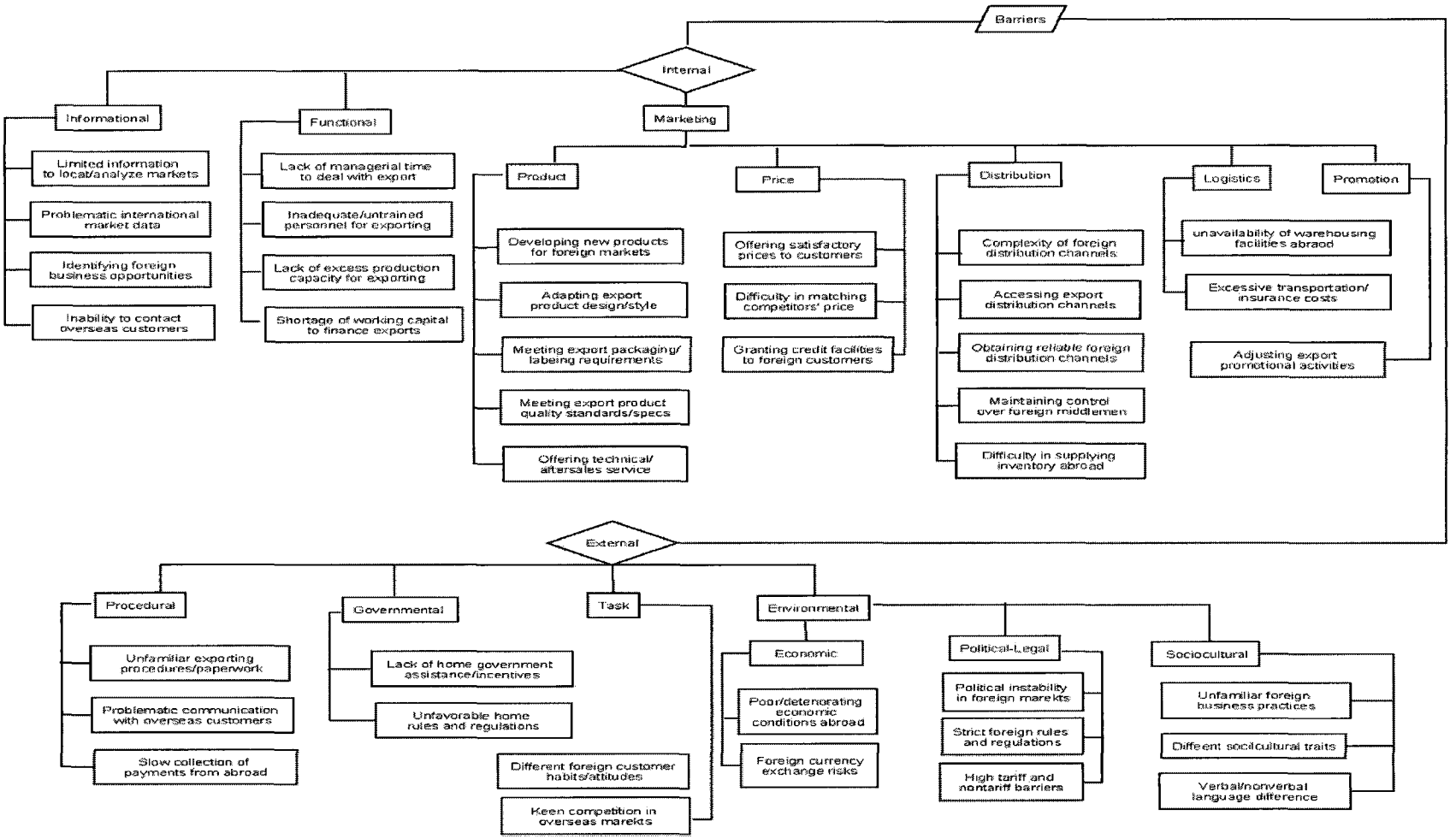


Figure 9. Export Barriers

(Leonidou, 2004)

Chapter Four Methodology

4.1 Introduction

This study investigates the EBs encountered by forest products firms in British in regard to exporting to the Chinese market. By concentrating on firms in a single industry, exporting to a specific export destination, this research design can effectively reduce biases that may generate from involving a diverse range of industries and multiple export destinations in one study (Leonidou, 1994). In addition, the findings from this study can also provide theoretical knowledge to the understanding of the EBs that impede BC forest products firms from entering the Chinese market, and furthermore can aid in facilitating Canadian forest products firms in the Chinese market exploration.

4.2 The Description of Study Area

BC forest regions can be divided into Coastal and Interior two forest regions (See Figure 10). The Interior forest region consists of the Northern Forest Interior[1] and Southern Forest

[1] This region covers from north of Quesnel to the Yukon border, excluding the central coast and north coast districts. The region encompasses the Fort Nelson, Fort St. James, Kalum, Mackenzie, Nadina, Peace, Prince George, Skeena Stikine, and Vanderhoof forest districts (Ministry of Forest and Range).

Interior[2]. The Northern Forest Interior area has about 55 million hectares forest covered areas, accounting for 58% of the province's forest regions. It is one of Canada's largest forest regions and one of the two largest lumber producing bases in Canada. This forest sector provides approximately 22,000 direct and 44,000 indirect jobs in local communities (Council of Forest industries, 2005). The Southern Forest Interior region is comprised of approximately 24 million hectares, accounting for 25% of the provincial land base. It is the largest wood product manufacturing base in Canada, supporting approximately 26,000 direct and 52,000 indirect jobs (Council of Forest industries, 2005). Firms in the Interior region have the world's most advantaged technology of wood manufacture and lowest unit costs. Lumber production is one of their major products and nearly 80% lumber products export to the US. However, the interior forest industry is heavily dependant on the US market, and has made little efforts to diversify their export markets in the past decades.

The BC Coastal region[3] is comprised of the Central and North Coast districts, which covers a total of 16.5 million hectares land (Forest Regions and Districts Regulation of British

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[2] This region is comprised of the Cariboo, Kamloops and Nelson forest region. This includes Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Columbia, Headwaters, Kamloops, Kootenay Lake, Okanagan Shuswap, Quesnel, Rocky Mountain, and 100 Mile House forest districts (Ministry of Forest and Range).

[3] BC's Coastal forest region is located along the coastal regions of BC, and expands to the east of the Coastal and Cascade ranges, as far south as the US Border with Washington, and as far north as the Alaska border, and as far west as the Queen Charlotte Islands and Vancouver island (Ministry of Forest and Range)

Columbia, 2003). The forest industry in Coastal region together provides 34,000 direct jobs and 68,000 indirect jobs in local communities (BC coastal forest association, 2005). Nowadays, many forest product firms in the Coastal region are suffering from lacking investment, lagging technology, excess manufacturing capacity, and highest production costs, which weaken the competitiveness of their products in the global market (Ministry of Forests and Range, 2005). Due to these hindrances, many firms in Coastal region have paid special attention to diversity the export markets. They have specially intent to develop the Asian market because there is a geographic proximity between these two regions. Wood associations in Coastal region have also endeavored in exploring the Chinese market.

Because the two BC forest regions possess the different industry characteristic and have various advantage for exporting goods to the Chinese market, these two BC forest regions were compared to determine if the geographic difference affect the EBs they identified in exporting to the Chinese market.

Data source: (http://www.for.gov.bc.ca/mof/maps/regdis/nrco.htm)

Figure 10. Map of British Columbia forest regions

4. 3 Sample

Samples in this study were extracted from *BC Manufacturers' Directory 2007* (BC Statistics, 2007), which is a directory that provides information about 95% manufacturers established in BC. Information in the directory includes company name, location, major

products, number of employees, names of managers, and their contact information (email address or telephone number, or both). Three criteria were used to select the sample population for my study. First, a selected firm must be a forest products company with at least twenty employees. Mittelstaedf, Harben, and Ward (2003) found that a firm with less 20 employees does not have productive capacity to export. Second, the specific contact information of a high-level employee must be in the information list to address the survey to the particular person. The High-level is defined as a firm's chief executive officers, general managers, sales managers, or managers in marketing department etc., who are well aware of the firm's marketing and development strategies, and potentially possess knowledge about exporting. Third, only managers with an email contact method were selected. The primary reason to eliminate firms without managers' email contact information was of the requirement of website survey requirement. Also, if a manager did not have an email contact nowadays, he (she) was regarded as inactive in the international business, and cannot contact overseas' customers effectively. Based on these three criteria, 202 companies were selected, with 103 firms from Coastal region, and 99 firms from Interior region respectively.

A website survey was designed to collect information in this study. Most of the existing literature on EBs has applied the traditional mail survey methodology to collect data. Only one recent study applied email survey methodology (Altintas & Tokol, 2007). Compared with traditional survey methods, such as mail and telephone survey methods, website survey method has several advantages. First, website surveys cost less and require less response time to be allocated (Sheehan & Mcmillan, 1999). Second, website surveys are very convenient for respondents because they can answer the questions by just clicking on the screen to complete and transmit the answers immediately while they access a computer and an internet connection

(Sheehan & Hoy, 1999; Weible & Wallace, 1998). In addition, the data collected through online survey can be easily saved and converted into an appropriate format for statistical analyses (Cobanoglu, Warde, & Moreo, 2001). Furthermore, website survey can also extend the sample pool by including all members in the target population without extra cost, although a low response rate may result (Sheehan & Mcmillan, 1999).

4. 4 Questionnaire Design

The questionnaire design in this study followed the framework of the previous export barrier studies by Bilkey and Tesar (1977), Kedia and Chhokar (1986), Vozikis and Mescon (1985), which was comprised of four sections. The first section intends to explore a firm's organizational characteristics. Participants were asked to indicate the types of products their company produced, their firm size in both the number of employees and sales turnover, and the number of operation years. The second section includes a firm's export experience. Participants were asked to indicate their firms' export experience (years), number of export destinations, and export intensity (the percentage of exporting gains of total sales turnover) during 2002-2006 and 2007 to indicate any changes in export practices. The third section examined the EBs that firms experienced or perceived in exporting to the Chinese market. Participants were asked to state if they exported to China, and if so, how long had they been exporting. Participants were also asked to indicate their exporting gains from business with China during 2002-2006 and in 2007, and to rank the importance of exporting to China. Participants were also asked if their companies had a development strategy to export to the Chinese market. The fourth section examined and weighed EBs that significantly hindered BC forest product firms from exporting to the Chinese market. Participants were asked to evaluate

the significance of the 39 EBs (Leonidou, 2004) based on their previous export experience or perceptions. The EBs defined here contain the both the real export problems that firms experienced, and subjective views that non-exporters perceived on EBs (Leonidou, 2004). Five-point Likert scales with scale poles ranking from the least significant (1) to the most significant (5) were used to represent the degree of significance of the EBs (see Appendix A).

4. 5 Survey Methodology

In early June 2008, a pre-test of the questionnaire was conducted among two economists, four BC forest firm managers, and one UNBC statistics instructor to test for clarity and response ease. Minor adjustments were made to the questionnaire based on the respondents' opinions and suggestions. The final edition of the questionnaire was put on an online survey website at the end of June 2008.

On July 4, 2008, an invitation email with an embedded link of the survey website was sent to the target samples, inviting them to participate in this survey. The survey website contains a cover letter, a consent form, and the survey questionnaire. The cover letter explained the aims of the survey, provided assurances about confidentiality, and voiced the importance and urgency of the study. Then the participants were asked to sign either an electric or a paper copy of a consent form, indicating their willingness to participate in this survey. This survey link was active for three weeks, from July 4 to July 25, 2008. A reminder email was sent on July 18, a week prior to the ending date, to the target population who had not replied the survey. By the end of the survey period, a total of 54 individual email addresses, either showed *failed to deliver,* or *the proxy is wrong* or *the the receiver's email box is full.* Ilieva, Baron, and Healey (2002) stated that non-deliverable emails in email/website survey are a common

phenomenon because people change their e-mail addresses and their Internet Service Providers (ISP) more frequently than their post mail addresses. We eliminated these 54 firms from our sample population. In total, 14 participants responded to the website survey, and a response rate of 9.5% was gained, less than we expected.

In order to supplement the survey, a telephone survey was conducted between August 2 and August 21, 2008 to gain extra participants. In the telephone survey, a stratified random sampling method was applied because that stratified sampling design can effectively control the constitution of the sample and potentially reduce sampling error (Sapsford, 1999). Stratified random sampling can also ensure that a small group within a population is represented adequately in a sample in order to compare it to a large group (Sapsford, 1999). Sample population are those remained firms which did not response to the website survey, and have effective email contact information and telephone contact information. The target population were divided into five subgroups (less than 50, 50-99, 100-499, 500-999 and over 1000) by the firm's size (number of employees). From each subgroup, 50% of the companies were selected randomly to carry out this telephone survey.

During the telephone survey, 26 firms were removed from the sample population because they were not forest product firms, had shut down, one firm that operated under various names, and the managers addressed were no longer working there. The removal of these inappropriate companies left 122 firms in the sample population. Another 20 firms participated into this telephone survey.

A total of 34 respondents completed the survey: 20 by telephone survey and 14 through the website survey. A response rate of 27.86% was reached at the end of sampling. The average top management response rate in previous studies ranges from15% to 20% (Menon,

Bharadwaj, Adidam, & Edison, 1999), and as such the response rate in the study is deemed as acceptable and adequate.

4. 6 The Internal Validity of the Data

Out of the 34 respondents, only 6 respondents evaluated all 39 barrier variables; the remaining 28 respondents did not response to all of the 39 EBs. In order to check if the omissions were random or purposeful, a non-response bias test (Armstrong & Overton, 1977) was carried out to examine the difference between respondents who responded less and respondents who responded more to the 39 barriers variables. The respondents were categorized in to low, medium, and high subgroups, which were defined as those who responded to (1) less than 11 export barrier variables, (2) between 11 and 25 export barrier variables, and (3) over 25 export barrier variables respectively. A one-way ANOVA test results indicated that no significant difference was found between these three groups when at a significant level of $\alpha = 0.01$ (two tailed tests) (see Appendix B). This result indicated that no nonresponse bias existed; the data validity was therefore determined to be sufficient.

4. 7 Preliminary Tests of the Data

During the telephone survey, managers in the Interior and Coastal regions of BC forest product firms displayed different attitudes in response to this survey. In Coastal region, managers who received the survey invitations showed great interest in participating in this survey and were willing to provide comments, even though some of them had not exported to the Chinese market when the survey was conducted. In contrast, managers of Interior forest product firms showed less interest in taking part in this survey. Some managers simply expressed that they had no comment to contribute or have no interest in participating in such a

survey.

Table 1 shows the response rate based on the geographic location. Compared with Coastal region, where survey response rate is 30.2%, the response rate in Interior region is only 25.4%.

Table 1. The survey response in Coastal and Interior BC forest regions

Location	Sample Size	Response Number	Response Rate (%)
Interior	59	15	25.4
Coastal	63	19	30.2
Total	122	34	27.8

Because firms in BC Coastal and Interior forest regions possess different industry characteristics and response rate, a preliminary t-test was conducted to identify if there are significant differences between firms in Coastal and Interior regions according to the EBs they identified. Test results (see the Appendix C) indicated no significant differences in the EBs they evaluated in regard to geographic location ($p < .05$). Based on this result, firms in these two regions were combined together as one unit of BC forest firms to provide a more robust sample size for further analysis and interpretation.

4.8 Data Analyses Methods

Statistical Program for the Social Sciences (SPSS) was applied in this study to carry out all the statistic analyses. Descriptive statistics were applied to address the basic situation of

BC's forest firms exporting to China, Frequency analysis were used to identify and evaluate the EBs that hindered BC forest firms in regard to exporting to the Chinese market. Two hypotheses were tested using non-parametric Spearman rho correlation coefficient analysis, and the results were used to answer the Research questions 2 and 3 (See Chapter 1, P 7-8).

The reasons of choosing Spearman's rho (ρ) to test the hypotheses in this study are because the data collected in my questionnaire were nonparametric and most of the variables were sorted into 1-5 ranked order. Lehmann and D' Abrera (1998) stated that Spearman's rho (ρ) is a nonparametric rank statistics to measure the strength of the association between two variables. It is also appropriate to test the correlation of variables that are sorted into ordinal data, and results can be interpreted as linear relationships between two variables (Lehmann & D' Abrera, 1998).

Since the 39 EBs were evaluated into five-level rank order variables in order to represent the significancy of the EBs that perceived by a firm's manager. Two variables of firms size, number of employees and sales turnover; and firm's export experience, number of years exporting and number of years of exporting to China, were also coded into a 1-5 ranked order to conduct the spearman correlation test .

Table 2 Recoding firm size and export experience variables to 1-5 value

Variable	Old value of the variable	New value
Number of employees	<50	1
	50-99	2
	100-499	3
	500-999	4
	>1000	5
Sales turnover ($Million CAD)	<1	1
	1-10	2
	11-50	3
	51-100	4
	>100	5
A firm's total years of exporting	0	1
	1-5	2
	6-10	3
	11-20	4
	Over 20	5
A firm exporting years to China	0	1
	1-5	2
	6-10	3
	11-20	4
	Over 20	5

The Spearman rank correlation coefficients is defined by:

$$\rho = 1 - \frac{6\sum d_i^2}{n(n^2-1)}, \qquad \text{di=Xi-Yi} \qquad [1]$$

Where Xi and Yi represent the value of the two variables; di=Xi-Yi represents the difference between the ranks, and n represents the number of values in each data set; ρ

represents the degree of the correlation of the two variable, ranging between -1 and 1, indicating the negative and positive correlations respectively. The closer the $|\rho|$ value to 1 , the stronger correlations of the two tested variables. A probability value of $p = .05$ was regarded as the significant value for the correlation tests. If the $p < .05$, two tested variables were considered as significance.

Chapter Five Results and Discussion

5. 1 Basic Information of the Respondent Firms

In this study, quantitative data analyses were conducted to address the research objectives and test the hypotheses stated in Chapter 1 (p. 5). This section identifies the profile of the sample respondents (Table 3, 4 and 5). These tables summarize the information collected in the first section of the survey questionnaire, which show the organizational characteristics and levels of globalization of the respondent BC forest products firms.

5.1.1 Organizational Characteristics

Table 3 displays the respondent firms' organizational characteristics. Information in this table summarizes the types of products that each firm produced, its geographic location, numbers of years in operation, number of employees, and sales turnover. Table 3 shows that 52.9% (n = 18) of the respondent firms were lumber producers, and the remaining 47.1% (n = 16) of the firms were other wood related manufacturers, such as pulp and paper companies, log producers, and value-added wood producers etc. Geographically, 55.9% (n = 19) of the firms were from the Coastal region, and the rest 44.1% (n = 15) were from the Interior region. In viewing of firm's years of operation, 73.5% (n = 25) of firms had more than 20 years of operational experience, 11.8% (n = 4) of the firms had more than 10 years but less than 20 years of operational experience. Only 5.9% (n = 2) of the firms reported that they had less 5 years of operational experience.

Table 3. Firms' organizational characteristics

	Range	N	Percentage
Production	Lumber	18	52.9
	Others	16	47.1
Location	Coastal	19	55.9
	Interior	15	44.1
Years of operation *	1-5	2	5.9
	11-20	4	11.8
	>20	25	73.5
Number of employees*	<50	15	44.1
	50-99	8	23.5
	100-499	6	17.6
	500-999	1	2.9
	>1000	4	11.8
Sales turnover ($Million CAD)*	<1	1	2.9
	1-10	7	20.6
	11-50	5	14.7
	51-100	5	14.7
	>100	9	26.5

* Note: Missing data exist in this category and were not listed in this table.

In total, 44.1% (n = 15) of the surveyed firms had less than 50 employees. Firms with more than 50 but less than 99 employees accounted for 23.5% (n = 8) of the sample. Firms with more than 99 but less than 499 employees accounted for 17.6% (n = 6) of the total firms. Firms with over 1000 employees accounted for 11.8% (n = 4) of the total respondents. There was only one firm in the 500-999 employee category, was least common..

Between 2002 and 2007, firms with over $100 million CAD in sales turnovers accounted for 26.5% (n = 9) of the total sample. Firms with sales turnover ranging from

$1-10 million CAD accounted for 20.6% (n = 7) of the whole sample. Sales turnover ranging from $10- 50 million CAD and $50-100 million CAD had five firms each, and each group made up 14.7% of the total sample respectively. One firm claimed that its sales turnover was less than one million CAD.

5.1.2 Globalization Level

Table 4 summarizes the globalization levels of the surveyed firms, which includes their exporting experience, number of exporting markets, and export intensity from 2002 to 2006, as well as, export intensity for 2007. Approximately, half of the firms had over 20 years of exporting experience. Another 17.6% (n = 6) of the firms had over 10 years but less than 20 years of exporting experience. The numbers of firms with export experiences ranging from 6 to 10 years were equal with firms that had 1 to 5 years of exporting experience, and each accounted for 5.9% (n = 2) of the respondents. The remaining 8.8% (n = 3) of firms did not have any exporting experience by 2008.

Approximately, half of the surveyed firms exported to more than three foreign countries and regions. Another 41.2% (n = 14) of firms exported to three or less overseas markets. The remaining 11.8% (n = 4) of firms did not respond to this question.

Between 2002 and 2006, 50% of the respondent firms (n = 17) stated that exports accounted for over 40% of their sales turnover. However, this ratio decreased 10% (n = 15) in 2007. Firms with an export intensity ranged from 10%- 40% accounted for 17.6% (n = 6) of the total sample from 2002 - 2006. By contrast, in 2007, this ratio increased 9% (n = 9). Firm with export intensity ranging from 1-10% was 5.9% (n = 2) of the total sample from 2002-2006, however, this ratio dropped to 2.9% (n = 1) in 2007.

Table 4. The export situation of the respondents

	Range	N	Percentage
Export experience (years)*	0	3	8.8
	1-5	2	5.9
	6-10	2	5.9
	11-20	6	17.6
	>20	16	47.1
Number of exporting countries *	NA	4	11.8
	1-3	14	41.2
	>3	16	47.0
Intensity of exporting 2002-2006*	NA	3	8.8
	1-10%	2	5.9
	11-40%	6	17.6
	>40%	17	50.0
Intensity of exporting 2007*	NA	4	11.8
	1-10%	1	2.9
	11-40%	9	26.5
	>40%	15	44.1

Note: *: Miss data exist in this category and were not listed in this table; NA: not applicable

5.1.3 Situation of Exporting to the Chinese Market

Table 5 shows the respondent firms in term of exporting goods to the Chinese market.

Table 5. The firms' exporting to the Chinese market

	Range	N	Percentage
Years of exporting to China*	0	16	47.1
	1-5	9	16.5
	6-10	3	8.8
	11-20	3	8.8
	> 20	1	2.9
Intensity of exporting to China 2002 - 06	0 %	14	41.2
	1 – 10 %	14	41.2
Intensity of exporting to China 2007	0	13	38.2
	1 – 10 %	11	32.4
	11 – 40 %	2	5.9
Perceived the importance of exporting to the Chinese market	Most important	10	29.4
	Somewhat important	8	23.5
	Less important	8	23.5
	Not important at all	2	5.9
	No not know	4	11.8
Does firm have a strategy to export to China	Yes	7	20.6
	No	24	70.6
	No not know	3	8.8

Note: *: Miss data existed in this category and were not listed in this table; NA: not applicable

The table includes information about the number of years that the firm had been exporting to the Chinese market, the intensity of their exporting to the Chinese market, the

importance of their exports to China, and whether or not the firms had exports strategies to the Chinese market.

At the time the survey was conducted, 47.1% (n = 16) of the firms had never exported to the Chinese market, and 26.5% (n = 9) of firms had exported to China for less than 5 years. Together, these two groups accounted for 71.6% of the total sample. Firms with export experiences ranging from 6 -10 years and 11 - 20 years accounted for 8.8 % (n = 3) of the total respondent firms respectively. Only one company had exported to the Chinese market for more than 20 years, which accounted for 2.9% of the total respondent firms.

From 2002 - 2006, 41.2% (n = 14) respondent firms indicated that they had no sales generated from exporting to China. Another 41.2% (n = 14) of the surveyed firms 1-10% of their sales were from exporting to China. None of the respondent firms' exports to China exceeded this range during 2002-2006. In 2007, one firm started exporting and the no exports gained from exporting to China decreased to 38.2 % (n = 13). The intensity of which the firms exported to China ranging 1-10% of their total sales turnover also decreased to 32.4% (n = 11). As two of these firms indicated that the ratio of their sales to China increased, accounting for 11-40% of their sales turnover in 2007.

In evaluating the importance of the Chinese market, 29.4% (n = 10) respondents identified that the Chinese market was *most important.* For 23.5% (n = 8) of the respondent firms viewed the Chinese market was *somewhat important,* and the same amount of firms (n = 8) viewed the Chinese market as *less important.* Another 5.9% (n = 2) of the respondent firms believed that the Chinese market was *not important at all.* The remaining firms, 11.8% (n = 4), identified that they *do not know.*

In total, 70.6% (n = 24) of the respondent firms indicated that they did not have an export strategy to the Chinese market at all, and 20.6% (n = 7) of the respondent firms stated that they had such a strategy. The remaining 8.8% (n = 3) of respondents indicated

that they did not know if their firms had an export strategy. Now compare the fact that 70.6% did not have a strategy but that 38.3% report exporting and 23.5% did not report degree of exports

5.2 The Significant Export Barriers

5.2.1 Description

Table 6 summarizes the frequency of the thirty-nine EBs that identified by the surveyed firms. In descending order of the mean value, the thirty-nine EBs were ranked as follow.

Table 6. The frequency of the thirty-nine export barriers

Export barriers	Mean	Median	Mode
Hard to identify business opportunities in China (in)	3.52	4	5
Problematic communication with Chinese customers (ex)	3.35	4	5
Excessive transportation or insurance costs (in)	3.33	3	5
Can not offer satisfactory prices to customers (in)	3.17	3	5
Inability to contact overseas customer (in)	3.05	3	5, 3*
Verbal or nonverbal language differences (ex)	3.00	3	5, 3*
Inadequate or untrained personnel (in)	2.96	3	5, 3*
Hard to obtain reliable foreign representation (in)	2.89	3	5, 3*
Different sociocultural traits (ex)	2.94	3	4
Different foreign customer habits or attitudes	3.12	3	3
Keen competition in the Chinese market	2.56	3	3
Complexity of distribution channels	2.65	2	2
Unfamiliar with Chinese business practices	2.94	3	1
Unable to grant credit facilities to foreign customers	2.88	3	1
Limited information	2.87	3	1
Lack of managerial time	2.84	3	1
Difficulty in matching competitor's prices	2.70	3	1

Unfamiliar with China's exporting procedures or paperwork	2.67	2	1
Unreliable data	2.59	2.5	1
Unfavorable home rules and regulations	2.53	2	1
Slow payments collection from Chinese customers	2.50	2	1
Hard to offer technical support or after-sales service	2.44	2	1
Hard to access export distribution channels	2.35	2	1
Need to adjust export promotional activities	2.35	2	1
Lack of Canadian government assistance or incentives	2.25	1.5	1
High tariff and non-tariff barriers	2.25	2	1
Hard to develop new products	2.20	2	1
Strict exporting rules and regulations in China	2.20	2	1
Lack of excessive production capacity	2.16	1	1
Hard to control over Chinese middlemen	2.11	1.5	1
Need to adapt new design and style	2.10	2	1
Hard to supply inventory to China	2.06	1.5	1
Foreign currency exchange risks	2.00	2	1
Unable to meet quality standards or specifications	1.92	1	1
Political instability in the Chinese market	1.87	1	1
Short of working capital to finance exports	1.79	1	1
Poor or deteriorating economic conditions in China	1.71	2	1
Unavailability of warehouse facilities	1.59	1	1
Unable to meet package or labeling requirements	1.44	1	1

* More than one value in this variable, and the same amount of respondents evaluated this EB as 5 and 3; In: Internal barriers; Ex: External barriers

A total of nine barriers were identified as the significant barriers (mode ≥ 4, and mean ≥ 2.5). The first four EBs were evaluated by the respondents as the *most significant* export obstacles that hindered firms from exporting (mode = 5, and mean > 3.2). These four EBs were *business opportunities are difficult to identify, problematic communication with*

Chinese customers, excessive transportation or insurance cost, and *cannot offer satisfactory prices to customers.* The same number of respondents weighed the next four barriers as *the most significant* and *do not know* (mode = 3, mean > 2.9) in an equal manner. These four barriers were defined as moderately significant barriers, which included *inability to contact overseas customer, verbal or nonverbal language differences, inadequate or untrained personnel,* and *hard to obtain reliable foreign representation. Different sociocultural traits* barrier was also identified to be a significant obstacle because respondents evaluated this barrier as somewhat significant (mode = 4, mean > 2.5).

5.2.2 Discussion

The surveyed BC forest products firms identified the barrier of *business opportunities are difficult to identify* (mode = 5, mean = 3.52) as the most significant obstacle that hindered their Chinese market exploration. As an internal barrier (Leonidou, 2004), this barrier is closely related to firms' uncertainty regarding overseas markets. This barrier plays a significant role to a firm that intends to export to countries with greater psychological distance of their original country (Johanson & Wiedersheim-Paul, 1975). Compared with Canada's traditional trade partners, such as the US and the European Union, the Chinese market possesses many different social, cultural and political characteristics. In this study, although nearly half of the respondents reported that they had at least 20 years of export experience, and had exported to at least three international markets, apparently such experience did not significantly help them overcome their obstacles when facing the Chinese market. The *hard to find business opportunities in the overseas market* obstacle poses some information obstacles for managers. Bell (1997) also identified that a lack of foreign market information occurs frequently in a firm's initiative export stage, and can cause a firm give up the efforts of exploring an overseas market at the very beginning. This barrier was also identified as

important in studies by Kedia and Chhokar (1986), Cheong and Chong (1988), and Morgan and Katsikeas (1997). This result also indicates that forest products firms in BC are still in their initiative stage. The difficulty in getting the market information they need is still the top one exporting problems hindering their exporting to the Chinese market.

Problematic communication with Chinese customers was the second most significant barrier hindering BC forest products firms' exporting to the Chinese market (mode = 5, mean = 3.35). Communication difficulty, as an external problem, is a crucial deterrent obstructing firm's market expansion. This EB was also found to be significant in studies by Kaynak et al. (1987), and Morgan and Katsikeas (1997).

Excessive transportation or insurance cost was the third most important barrier by the respondents, indicating that high cost of transportation or insurance plays a negative role in BC forest products exporting to China. By comparing to exporting to the US market, exporting to the Chinese market imposes some additional shipping costs, which inevitably increases the sale price of Canadian timber products in the Chinese market. The high price of Canadian forest products is less competitive, which presents further business challenges in the Chinese market because China is a price-sensitive country (Cohen, 2002). Yet, it should be recognized that this survey was performed in the summer of 2008, a period when global petroleum prices were increasing. Therefore, the perception of transport costs may have been skewed. As such, this internal logistics barrier identified in this study could simply be a function of a general obstacle for all overseas markets rather than a specific obstacle for the Chinese market. Bodur (1986), Katsikeas and Morgan (1994), Ramaseshan and Soutar (1996), Sullivan and Bauerschmidt (1990), and Leonidou (1995) found this EB also to be significant in their EBs studies.

BC forest products firms ranked *inability to offer satisfactory prices to the overseas*

customers as another most significant obstacle for exporting to China. This indicates that price competition poses a serious handicap to a firm's export endeavours (Leonidou, 1995b). This impediment shows the severe competition in the Chinese forest products import market. This impediment, as Leonidou (1995b) indicated, is a common internal barrier among companies that lack previous export experience. Inexperienced firms tend to underestimate the competitiveness of products, and overemphasize the price function in the foreign markets. My findings support the previous research by Barrett and Wilkinson (1985), Dichtl, Koeglmayr, and Mueller (1989); Keng and Jiuan (1989); Rao, Erramilli, and Ganesh (1990) and Leonidou (2004), which rated this barrier as one of the most significant obstacles to exporting overseas. My findings also corresponded with a prior study by Cohen and Lee (2000), indicating that China is a price sensitive nation with intense competition in its forest products supply market.

Inability to contact overseas customers, as the classification of Leonidou (2004), is another internal difficulty that firms confronted in both identifying and communicating with overseas' customers. This barrier also closely related to *verbal and cultural difficulties* barrier because such barrier also hinders firms from contacting and communicating with customers. This barrier also relates to *difficulties in obtaining information from overseas customers*, which is the top one *most significant barrier* in this study, indicating that a lack of capacity to contact overseas markets impedes firms from getting perceptual, first-hand knowledge from their customers, and further impeding their decision-making.

The Verbal or nonverbal language differences barrier impedes the interpretation and understanding of the culture, society and customers' requirements in overseas markets. This external sociocultural EB also hinders firms' information gathering and market evaluation abilities. It further imposes communication difficulties on overseas customers (Leonidou, 2004). In addition, this barrier affects a firm's marketing strategy in regard to

branding, packaging and advertising (Terpstra, Sarathy, & Laverie, 1987). This barrier were also identified in previous studies by Barker and Kaynak (1992), Gripsrud (1990), Katsikeas and Morgan (1994).

Export barrier literature indicates that *inadequate or untrained personnel* barrier is an internal barrier impeding firms' intrinsic export capacity. Moreover, smaller firms frequently identify this barrier as significant because they usually lack experienced managers and employees, especially when they encounter a new export destination (Barker & Kaynak, 1992; Moini, 1997; Naidu & Rao, 1993; Tseng & Yu, 1991). Lacking export personnel may result the misinterpretation of the available export information, an overemphasis of EBs, and eventually a loss of export opportunities (Julian & Ahmed, 2005). In this study, 85% respondents are small and medium size firms (less than 500 employees); therefore, it is not surprising that this barrier was evaluated as one of the moderately significant barriers in the Chinese market exploration.

The Hard to obtain reliable foreign representation external barrier hinders firms' operations in overseas markets. This barrier normally occurs at firms' export entry stages (Bell, 1997). After the export destination has been targeted, firms often encounter difficulties in securing suitable market representation. Again, this problem is frequently exacerbated by extant resource constraints and by a lack of management expertise, particularly in the case of smaller firms (Cheong & Chong, 1988). This barrier was also found crucially in other studies (e.g. Cavusgil, 1984a; Diamantopoulos et al., 1990; Tesar & Tarleton, 1982; Yaprak, 1985).

Different sociocultural traits is another external barrier that was frequently found in the early phases of export involvement (Bell, 1997). This barrier involves differences according to values, attitudes, manners, customs, aesthetics, and education between a firm's original country and its export destinations (Cateora, Graham, & Ghauri, 1993). This

barrier is particular import for Canadian exporters because not only social and cultural differences exist in the bilateral trade of China and Canada, but also a diverse range of cultural differences exist in each sub-region of China. It is critical for Canadian firms to recognize this variety before they can export successfully. Similar findings were also found in studies of Cavusgil (1984a), Diamantopoulos et al. (1990), and Rao et al. (1990).

Among these nine identified EBs, six barriers are internal barriers and three are external barriers according to Leonidou's (2004) classification. This ratio indicates that two thirds of the EBs identified in this study are intrinsic problems, implying that BC forest products firms could overcome most of these export problems internally. Moreover, the three external barriers, *problematic communication with Chinese customers, verbal or nonverbal language differences,* and *different sociocultural traits* could also be overcome by recruiting experienced managers, personnel, and gathering social and cultural information of the Chinese market.

Except for the *excessive transportation or insurance costs* barrier, the remaining eight barriers identified in this study are problems that were found frequently occur in a firm's export initiative stag (Bell, 1997). This stage, as Leonidou (1995b) noted, is a critical stage because failure to understand and surpass the EBs in this stage would not only reduce the profits of firms in the export markets, but may also cause firms to withdraw from the intentioned export markets.

The findings of my study show both similarities and differences to Leonidou (2004) in regard to the significant of EBs. Leonidou (2004) analyzed thirty-two previous empirical studies of EBs, and ranked the barriers into five categories: very high impact, high impact, moderately impact, low impact and very low impact. Three *most significant*, and one *moderately significant* barriers to BC forest products firms in my study were also viewed as having very high impact to firms' performance at overseas markets in Leonidou's (2004)

study. The three *most significant barriers* are *business opportunities are difficult to identify, excessive transportation or insurance cost, and cannot offer satisfactory prices to customers;* while the *moderately significant barrier* is *inability to contact overseas customers.* In addition, *problematic communication with Chinese customers*, which was evaluated as the *significant* barrier, and *inadequate or untrained personnel* together with *different sociocultural traits*, which were rated as *moderately significant* in my study, were found to have a moderate impact by Leonidou (2004). Nevertheless, *verbal or nonverbal language differences,* and *hard to obtain reliable foreign representation*, which were identified as moderately significant EBs in my study, were perceived as low impact and high impact respectively by Leonidou (2004). The inconsistency between the present results and previous conclusions highlights the importance of situation-specific factors, such as environmental conditions, industrial types, organizational characteristics and export experience in terms of how a firm perceives EBs.

The EBs found in this study also partly correspond with Ding's study (2007), which investigated the problems that hindered Chinese customers from purchasing and utilizing Canadian wood products. Ding (2007) identified that items like *high price of Canadian forest products, business opportunities difficulties identifying, language barriers, and different business regulations*, which significantly hindered Chinese customers, are also significant influenced BC firms from exporting to China. On the other hand, problems such as a *lack of knowledge about Canadian forest product specification, different grading rules of Canadian wood products and the slow delivery of BC forest products*, which were identified by the Chinese customers, are seldom realized by Canada's forest products firms. The different perceptions from the two sides of bilateral trade highlights the need to explore both perspectives of Canadian and Chinese firms in order to engage in a successful business relationships.

5.3 The Relationships between Export Barriers and Firm Size and Export Experience

The Spearman rho correlation coefficient was used as the method of analysis to test the two hypotheses in this study and answer the Research Questions Two and Research Question Three. Research Question Two is: Do different firm size parameters have the same relations with export barriers? The hypothesis for Research Question Two is: Two firm size parameters: number of employees and sales turnover correlate differently with EBs. Research Question Three is: Do different export experience have the same relations with export barriers? And the hypothesis for This research question is: Two export experience parameters, a firm's total export years and a firm's exporting years to the Chinese market, correlate differently with EBs (P. 5). In this study, the analysis involved two parts. These are: the Spearman rho correlation analysis was conduced between two parameters of firm size, number of employees and sales turnover, and the thirty-nine EBs in order to examine the relation of each firm size parameter with EBs. The correlation results are shown in Appendix D1. A probability value $p < .05$ was considered statistically significant. The EBs that are significantly correlated with number of employees and sales turnover are displayed in the Table 7. The Spearman rho correlation analysis tests were also conducted to examine the relationships between export barriers and a firm's export experience and the results are listed in Appendix D2. The EBs that are significantly correlated with the specific exporting years to China and a firm's total exporting years two export experience parameters are displayed in Table 8.

5.3.1 Research Findings

The Correlation between Firm Size and Export Barriers

Table 7. The relationships between export barriers and firm size

Export Barriers	Number of employees		Sales turnover 2002-2007	
	ρ	p	ρ	p
Verbal or nonverbal language (Ex)			-.880	.000
Different sociocultural traits (Ex)	-.594	.012	-.798	.001
Unreliable data (In)			-.724	.000
Inability to contact overseas customers(In)	-.637	.003	-.651	.003
Hard to control overseas Chinese middlemen (In)			-.647	.012
Slow collection of payments from China (Ex)			-.629	.012
Strict exporting rules and regulation in China (Ex)			-.553	.040
Unavailability of warehouse facilities (In)			-.528	.035
Lack of excessive production capacity (In)			-.519	.043
Hard to supply inventory to China (In)			-.517	.034
Inadequate or untrained personnel (In)			-.445	.043
Cannot offer satisfactory prices to customers (In)	-.477	.021		
Hard to obtain reliable foreign representation (In)	-.521	.022		
Problematic communication with Chinese customers (Ex)	-.559	.020		
Different foreign customer habits or attitudes (Ex)	-.514	.035		
Unfamiliar Chinese business practices (Ex)	-.731	.001		

Notes: ρ = correlation degree; p = probability, 2 tailed. Ex: external barriers; In: internal barriers

Spearman's rho correlation coefficient tests were conducted among thirty-nine EBs and firm size regarding to number of employees. Table 7 displays the seven EBs that were found to have significant correlation with number of employees. Ranked in descending order of the correlation degree, these seven EBs are: *unfamiliar Chinese business practice* ($\rho = -.731$, $p = .001$), *inability to contact overseas customers* ($\rho = -.673$, $p = .003$), *different sociocultural traits* ($\rho = -.594$, $p = .012$), *problematic communication with*

Chinese customers ($\rho = -.559$, $p = .020$), *hard to obtain reliable foreign representation* ($\rho = -.521$, $p = .022$), *different foreign customer habits or attitudes* ($\rho = -.514$, $p = .035$), and *cannot offer satisfactory prices to customers* ($\rho = -.477$, $p = .021$).

Same tests were also conducted among thirty-nine EBs and firm size according to sales turnover. Table 7 also displays the eleven EBs that were found to have significant correlation with firm size according to the sales turnover. Ranked by a descending order of the correlation degree, these eleven EBs were: *verbal or nonverbal language differences* ($\rho = -.880$, $p = .000$), *different sociocultural traits* ($\rho = -.798$, $p = .001$), *unreliable data* ($\rho = -.724$, $p = .000$), *inability to contact overseas customers* ($\rho = -.651$, $p = .003$), *hard to control over Chinese middleman* ($\rho = -.647$, $p = .012$), *slow collection of payments from Chinese customers* ($\rho = -.629$, $p = .012$), *strict exporting rules and regulations in China* ($\rho = -.553$, $p = .040$), *unavailability of warehouse facilities* ($\rho = -.528$, $p = .035$), *lack of excessive production capacity* ($\rho = -.519$, $p = .016$), *hard to supply inventory to China* ($\rho = -.517$, $p = .034$), and *inadequate or untrained personnel* ($\rho = -.445$, $p = .043$).

The Correlation between Firm Export Experience and Export Barriers

Spearman rho correlation coefficient tests were computed to assess the relationships between EBs and a firm's export experience. Two parameters of export experience, general export experience and specific export experience to China were tested. A probability value of $p < 0.05$ was considered statistically significant; results are shown in Table 8.

Table 8. The relationships between export barriers and export experience

Export Barriers	Number of years exporting to China		Number of years exporting	
	ρ	p	ρ	p
Lack of Canadian government assistance (Ex)	-.620	.004		
Lack of managerial time (In)	-.589	.002		
Inadequate or untrained personnel (In)	-.568	.004		
Foreign currency exchange risks (Ex)	-.555	.021	-.591	.013
Verbal or nonverbal language (Ex)	-.554	.017		
Unfamiliar Chinese business practices (Ex)	-.545	.029		
Different sociocultural traits (Ex)	-.525	.029		
Hard to obtain reliable foreign representations (In)	-.515	.024		
Different foreign customer habits or attitudes (Ex)	-.486	.048	-.487	.047
Slow collection of payments from Chinese Customers (Ex)	-.477	.045		
Need to adapt new design and style (In)			-.575	.006
Unavailability of warehouse facilities (In)			-.552	.022
Hard to offer technical or after-sale service (In)			-.536	.032
Short of working capital to finance exports (In)			-.533	.019

Notes: ρ = correlation degree; p = probability, 2 tails. Ex: external barriers; In: internal barriers (according to Leonidou, 2004 classification)

Spearman rho coefficient correlation tests indicate that ten EBs perceptions have significant negative correlation with a firm's specific export experience to China. Ranked in descending order of correlation degree, these ten EBs are: *lack of Canadian government assistance* (ρ = −.620, p = .004), *lack of managerial time* (ρ = −.589, p = .002), *inadequate or untrained personnel* (ρ = −.568, p = .004), *foreign currency exchange risks* (ρ = −.555, p = .021), *verbal or nonverbal language differences* (ρ = −.554, p = .017), *unfamiliar Chinese business practices* (ρ = −.545, p = .029), *different sociocultural traits* (ρ = −.525, p

= .029), *hard to obtain reliable foreign representation* (ρ = −.515, p = .024), *different foreign customer habits or attitudes* (ρ = −.486, p = .048), and *slow collection of payments from Chinese customers* (ρ = −.477, p = .045).

Spearman correlation tests were also computed to assess the relation among a firms' general export experience and the thirty-nine EBs. Six EBs show significant correlation with the general export experience. Ranked in descending order of the correlation degree, these six EBs are: *foreign currency exchange risks* (ρ = −.591, p = .013), *need to adapt new design and style* (ρ = −.575, p = .006), *unavailability of warehouse facilities* (ρ = −.552, p = .022), *hard to offer technical or aftersales service* (ρ = −.536, p = .032), *short of working capital to finance exports* (ρ = .533, p = .019), and *different foreign customer habits or attitudes* (ρ = −.487, p = .047).

5.3.2 Discussion

The parameters of firm size, number of employees and sales turnover have negative correlations with certain EBs. Number of employees parameter correlate with seven EBs, with four external barriers and three internal barriers. The research results can be interpreted as larger firms with more employees have more advantage in personal, financial and products capacity, thus they view three internal barriers of *contact overseas customers, offer satisfactory prices to customers*, and *obtain reliable foreign representation* as less problematic. However, firms with fewer employees regard these three barriers as more problematic when exporting to overseas markets. Moreover, firms with more employees also possess more capacity to understand *social and cultural traits*, and *foreign customer' habits/attitude* in overseas markets. They also have the personnel advantage in overcoming external barriers, which hinder them to *understand Chinese business practices*, and to *communicate with customers*., for example.

The sales turnover firm size parameter has negative correlation with eleven EBs, with four external and seven internal EBs. These results indicate that larger firms with more sales turnover have more advantages over firms with less sales turnover according to *obtain overseas markets' information, contact overseas customers*, and *control overseas middlemen*. Larger firms also possess more capacity to provide warehouse facilities, production, and supplying inventory as well as to overcome the problems related with *inadequate or untrained personnel*. It is easy to understand that, unlike smaller firms, larger firms with more sales turnover may overcome *verbal or nonverbal language* and *sociocultural* issues with greater ease. Moreover, larger firms also consider problems such as *slow collection of payments*, and *strict exporting rules and regulation* these external problems to be less significant than smaller firms with less sales turnovers do.

Both parameters of firm size, firms' sales turnover and number of employees, are both negatively correlated with two EBs, *different sociocultural traits, and inability to contact overseas customers.* However firm's sales turnover shows closer correlation with the two EBs than the number of employees does according to the correlation degree. The correlation degree between *different sociocultural* and sales turnover is -.798, while the correlation degree between this EB and number of employees is -.594. Similarly, the correlation degrees of *inability to contact overseas customers* with sales turnover and number of employees are -.651 and -.637 respectively.

Larger firms as defined by Inumber of employees and sales turnover view the significant EBs impeditive to a less degree. Moreover, number of employees and sales turnover correlated with EBs differently. Except for two EBs, the two firm size parameters, number of employees and sales turnover, correlated with EBs differently in both the items and amount of EBs they related. Moreover, the comparison results indicate that a firm's sales turnover is more strongly correlated with EBs than the number of employees

parameter. This is especially the case with internal barriers. The hypotheses that firm's EBs vary according to the number of employees and sales turnover were tested and the null hypotheses were rejected.

Similarities and differences exist in comparing my research results and other previous research, which explored the effects of a firm's organizational characteristics on EBs. Katsikeas and Morgan (1994), and Leonidou and Theodosiou (2004) found that firm size affected thirteen EBs and four EBs respectively based on *number of employees*. Similar to Katsikeas and Morgan (1994) and Leonidou and Theodosiou (2004), who found *different foreign customer habits or attitudes,* and *hard to obtain reliable foreign representation* were perceived significantly by smaller firms, we also found these two EBs had a negative correlation with smaller firms' with less employees. The rest of the EBs identified in this study differ in numbers and type compared to the findings of Katsikeas and Morgan (1994), and Leonidou and Theodosiou (2004).

Leonidou and Theodosiou (2004) also examined sales turnover in relation with EBs, and found that eleven EBs were related by smaller companies according to sales turnover. Four the EBs were found in both Leonidou and Theodosiou (2004) and this study. These four EBs are *verbal or nonverbal language, different sociocultural traits, unreliable data and inadequate or untrained personnel.* However, the remaining seven EBs in these two studies are different.

Through the Spearman rho correlation tests, both the two parameters of export experience, a firm's general export experience and its specific export experience to China negatively correlated with some of the tested EBs, but, not all of them. Firms with more general export experience regarded the export problems, such as *adapt new design and style*, and *offer technical or after-sale service*, as less impeditive. They also have plenty experience at financing exports and providing warehouse facilities to support exports.

Their abundant export experiences also effectively help them reduce foreign currency exchange risk, and understand as well as diminish the difference of foreign customer habits and attitude.

These results can be explained as firms with more export experience to the Chinese market are more familiar with government assistance programs, Chinese sociocultural traits, Chinese customer's habits and attitudes. They also possess advantages at overcome problems such as foreign currency exchange, verbal or nonverbal problems, foreign currency exchange risks, and slow payments issue. Additionally, the firms with more export experience with China also stated they felt less problematic regarding internal barriers, such as a lack of managerial time, inadequate or untrained personnel and a lack of reliable foreign representation, etc. This can be explained as they had already obtained human capacity to support their Chinese market export activities.

The two parameters of firm's export experience both negative correlated with two external EBs, *foreign currency exchange risks* and *different foreign customer habits or attitudes.* The correlation degree between these two EBs and the two parameters of export experience were slightly different from the firm's general export experience, which displayed a higher correlation degree with the two EBs than the firm's specific export experience to China did. More specifically, the correlation degree between foreign currency exchange risks and general export experience is -.591 while with specific Chinese market export experience is -.555. The correlation degree of different foreign customer habits or attitudes with general and specific export experience are -.487, -.486 respectively.

In general, the hypothesis that firm's EBs vary according to the two export experience parameters was tested and null hypothesis were rejected. The two Spearman correlation tests indicated that firm's export experience displays negative correlation with some tested EBs. The more export experience, the less they view the upon EBs as export obstacles.

Moreover, firm's general export experience and specific export experience to China correlated with EBs differently. Except the two export experience variables both correlated with two mentioned EBs, general export experience and specific export experience correlated with EBS differently at both the item and the amount of EBs they correlated. Moreover, the comparison results indicate that firms' specific export experience parameter correlates with more EBs than the general export does, especially more on external barriers.

My findings also show the consistency with previous studies, which indicated that the firms with less general export experience have disadvantage at overcoming encountered barriers during their exportation activities than more experienced firms (e.g., Katsikeas & Morgan, 1994; Leonidou, 2000; Da Silva & Da Rocha, 2001). In contrast, Leonidou (2000) tested twenty EBs and found firm's general export experience negative affected fifteen EBs. In Leonidou's (2000) research, *different foreign customer habits or attitudes, unavailability of warehouse facilities* and *Short of working capital to finance exports* three EBs significant hindered less export experienced companies, with consistent with findings of this study. However, the remaining EBs identified in my study differed with those described by Leonidou (2000) in numbers and type. In according to EBs with special export experience, Katsikeas and Morgan (1994) found specific export experienced negatively affected four EBs in Greek food-manufacturing firms on exporting to Germany. Except barriers of *lack of government's assistance* was found in both Katsikeas and Morgan (1994) and my study, the remaining EBs identified in these two studies were different in both numbers and type. The results implied that economic, political, social-cultural and geographic locations as well as industry sectors significantly affect EBs that firms confronted (Leonidou, 2004; Katsikeas & Morgan, 1994; Da Silva & Da Rocha, 2001).

In summary, both firm size and export experience negatively correlate with firms' EBs. Specifically, sales turnover correlates with more EBs than number of employees

parameter does. Moreover, firms' specific exporting experience correlated with more EBs than firms' general export experience does. These results imply that larger firms view less EBs impeditive than smaller firms. So did firms with more export experience to the specific export destination than firms with general export experience.

Chapter Six Conclusion and Recommendations

6.1 Summary and Conclusions

This study explored the EBs that forest products firms in BC encountered or perceived in exporting to the Chinese market, as well as the different parameters of firm size and export experience in relation with the EBs. Through a website/telephone survey questionnaire, nine EBs were identified as the significant obstacles that impeded firms' Chinese market exports. Ranked in descending order of the significant degree, these nine barriers are*: hard to identify business opportunities, problematic communication with Chinese customers, excessive transportation or insurance cost, can not offer satisfactory prices to customers, inability to contact overseas customer, verbal or nonverbal language differences, inadequate or untrained personnel, hard to obtain reliable foreign representation*, and *sociocultural traits differences*. This study also displayed that two firm size parameters, number of employees and sales turnover, have different relations with EBs, with sales turnover displaying a higher correlation with EBs than number of employees parameters does regarding both the amount of EBs they correlated and the correlation degree. Moreover, a firm's export experience to the Chinese market and the firm's general export experience have different relations with EBs, with specific export experience displaying higher correlation with EBs than the specific export experience does in regard to both the amount of EBs it related.

6.2 Contributions

This study contributed to the literature in the following three aspects: First, this study extend the EBs literature by extending the geographic coverage of EBs research. Canada's forest industry has previously received less attention in the export barrier literature, likewise

the Chinese market as an export destination in past studies. Moreover, my concentration on a single industry sector and one export destination helps me to reduce the sample heterogeneity, and thus increase the power of empirical conclusion and theoretical implications. This study design helps firms better understand the single market, and to formulate the export strategies targeting at the Chinese market.

Second, this study applied a combination research method to replace the traditional mail survey method. In the first time, this study combined website survey and telephone survey in order to provide a prompt, convenient and up-to-date research method in future EBs marketing research.

Third, for the first time, this research examined and compared the relations of the EBs with two firm size parameters, the number of employees and sales turnover, in relation with EBs. Moreover, this study distinguished the export experience into a firm's general export experience and specific export experience in order to test the relation of EBs with these two parameters of export experience. The results supplement the literature of EBs, and provide the theory base on further analyzing different factors in affecting firm's export practice.

6.3 Implications

The study will inform the BC government, forest products managers, policy makers, and trade associations with better knowledge of the present trade situation with China situation and further perspective. The identification of the EBs will also guide managers and policy makers to aware the problems that firms encountered/ perceived in order to search for proper methods to overcome these impediments. Moreover, this study demonstrates that two-thirds of the significant obstacles identified by the surveyed firms are internal barriers, which indicating

that many of these barriers could be overcome internally. Firms can overcome certain problems within the firm as within the province by recruiting trade experts who are familiar with Chinese market business traits and language, and accessing the trade assistance programs etc. The results acknowledge that the complexities and difficulties confronted by exporting firms are manageable issues rather than insurmountable obstacles (Morgan & Katsikeas, 1998). Finally, this study supports Bell's (1997) and Leoniodu's (2004), claims that the barriers found frequently occurr in the initiative stage of a firm's exporting stage. These research findings indicate that most of the BC forest firms are still in their market entry stage of exporting to China. They currently struggle in identifying market opportunities and overcomeing the conversation barriers to the Chinese market. Leonidou (1995b) stated that this initial stage of exporting is of critical for the successfulness of exporters according to the overseas market entry. Failing to deal with EBs at this stage may cause a firm's permanent withdrawal from the overseas markets (Welch & Wiedersheim-Paul, 1980).

The results of this study can provide both corporate and public policy makers with valuable EBs identification to formulate suitable export marketing strategies and national export assistance programs respectively. More specifically, these results will assist managers and policy makers to design and tailor programs, especially according to the sizes and the export experiences of the firms.

6.4 Limitations and Future Research

The study's findings and implications should be viewed in the light of certain limitations. First, this research is limited to a single industry sector and a unique export destination. Concentrating on one nation can eliminate the social, economic, cultural and geographic

differences caused by confounding variables that exist in each unique foreign market (Gripsrud, 1990; Lenidou, 1995). Moreover, focusing on a single industry also guarantees that the identified EBs are specific to a single industry, and, furthermore, provides a more concentrated assessment of EBs than would have been achieved by examining multiple industries simultaneously. As Leonidou (2004) and Katsikeas and Morgan (1994) argued, limiting research to a single industry and a specific export destination can minimize sample heterogeneity and increase the accuracy of the results. Such a research design limits the transferability of the results to other industries and destinations but, in doing so, ensures the power of empirical conclusions and theoretical implication is not compromised (Bilkey, 1978; Cavusgil, 1984a; Sullivan & Bauerschmidt, 1988) by the results being "attributable, at least partially, to industry type" (Silva & Rocha, 2001, p. 593).

The geographic limitation of this study means that caution should be paid in attempting to draw generalized conclusions or applying these findings to other geographic locations and other export destinations.

Also due to time and cost constraints, a particular limitation lies in the sample collecting procedures and the sample size. This study would be more representative had it contained more samples. Finally, only implicit inferences were made from the correlation tests between parameters of firm size and export experience and the EBs. Further research should apply a more sophisticated statistical method to analyze the relationships between EBs, and factors that affect them. Finally, future research endeavors should consider a long-term study design to track the development and the change of EBs that firms encountered in exporting to the Chinese market.

6.5 Recommendations

This study forms the basis for recommendations with respect to BC provincial government, trade promotion associations, and forest firm mangers. Both government and trade promotion associations should continue their Chinese market promotion endeavours. Specifically, efforts should also conduct to minimize the EBs that firms encounter regarding human and financial resources. Forest product exports policy makers and export strategy designers should pay special attention to assist smaller firms and firms, which have few or no export experience to initiate export activities and mitigate their EBs. Forest trade associations and other trade promotion agencies should also ensure that their services are flexible, and customized to fit demands of firms with various organizational characteristics and export experiences. They should also assist their memberships at initiating business trips and forest trade shows in China to improve firms' competitiveness in the Chinese market. In addition, these organizations should provide workshops, technical support, and personnel assistance to improve managers' knowledge of socio-cultural differences between China and Canada. Meanwhile, these organizations should assist firms at gaining market information, market representatives, and skilled personnel.

Managers in forest firms should continually upgrade their knowledge, and understand the opportunities and obstacles that exist in the Chinese market. By recruiting skilled personnel and adjusting market strategies and product designs, firms in BC forest products can better understand the situation of Chinese market and increase their competitiveness in the Chinese market as well. Managers should also ensure their acknowledgement of the governments' market diversification strategies, and participate actively in trade promotion programs (such as CWEP and FII, trade promotion programs sponsored by federal and BC governments). In

addition, managers should obtain assistance from various trade organizations on searching business opportunities, branding their products and overcoming the EBs that impede their Chinese market exploration.

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Appendix A. Survey Questionnaire

1. Letter for participants

Dear Sir or Madam:

As an owner/manager/sales manager of a British Columbia (B.C.) forest firm, you are invited to participate in the survey, "The perception of export barriers to China by Canadian Forest firms".

This survey intend to identify the situation and prospect of BC's forest firms in exporting forest products to the Chinese market. The information gathered will help our research group to have a better understand of the export barriers that B.C. forest firms are facing, as well as the assistances that forest firms need in the Chinese market exploration.

Your comments and perspectives are of great importance to develop a comprehensive understanding of current situation and further perceptions of BC's forest firms in developing China's market. Your participation is important for the accomplishment of this project, and it is greatly appreciated.

The information collected in this survey will be absolutely anonymous and confidential. Information of you and your company will not be shown in any publications or be released to any other parties.

If you want to get more information or need more clarifications about this study, please contact of the following investigators: Zhengzhe He at UNBC, Tel: $250-960-5741$, email: hez@unbc.ca; or Chris Opio at UNBC, Tel: $250-960-5868$

Thank you

Sincerely yours,

ZhengZhe He

2. Consent form for participants

Natural Resources & Environmental Studies
University of Northern British Columbia (UNBC) Room: 4-323,
3333 University Way, Prince George, BC, Canada, V2N 4Z9,
Tel: 250-960-5741

A team of researchers from the University of Northern British Columbia (UNBC) are conducting a research study on developments and prospects of British Columbia forest products export to China. The objective of this research is to acquire a comprehensive understanding of Canadian forestry exports to China, the export barriers BC faced in Chinese market exploration and the effective help and assistance expected from governments in further fostering Chinese market export development. The research results will help the Canadian forestry industry to better understand the present situation and barriers that hindered forest firms in China market development. Moreover, the findings from this study will help government \& export associations to better understand the existing questions and form better market promotion activities to help Canada forest products on exporting to China.

If you have any questions or concerns about the research, please feel free to contact the research leader Dr. Chris Opio at 250-960- 5868 or Dr. Jing Chen at 250-960-6480. Any complaints can be directed to reb@unbc.ca or Office of Research at 250-960-5820.

Purpose of the study

The purpose of the study is to study the development trends and prospects of forest products exports to China. The opportunities and barriers to exporting will be identified for BC forestry firms. Another purpose is to find the aids that BC forestry firms expect for further exporting to the Chinese market.

Procedure for participating in the Survey

If you agree to participate in this study, you will be asked to give your comments on

developing the Chinese market for BC forest products exports. There is a $3-page$ questionnaire which will take approximately 10-15 minutes to complete You can fill out either an online or paper version of the survey. If you prefer the paper version questionnaire, please inform the principal investigator. A copy of the consent form will be given to those who participate on paper version. If you chose to complete the survey online a copy of your consent form will be emailed to you within $2-3$ days.

Risks and Discomforts Statement

The information collected in this survey will not be used for any business purpose and participants' information will remain anonymous. There are no risks or discomforts to the participants.

Potential Benefits to Subjects and/ or to Society

The study results will offer a comprehensive review of BC forestry products exports to China, export development trends and the future opportunities and barriers that BC forestry firms faced on exporting to China market and the help and assistances that firms need on later market diversification. The opinions and preferences provided by the participants will enhance our knowledge on the existing problems Canadian forestry firms faced when they export to China market. The findings of the study have serious implications for both public and company policy makers. Policy makers may use this research results as a guide to developing proper export promotion programs and sound export marketing strategies.

Confidentiality

Your identity will be kept anonymous, and any information that is obtained in connection with this research will remain confidential. Information obtained from this survey is solely for education and research purposes. Only the principal investigator, co- supervisors, and research assistants will have access to the given information. The collected information will be stored at the survey website or locked area with research access only. The data collected will be kept for duration of 2-5 years after completion survey period. Afterwards the information collected will be shredded or deleted from the computer.

Rights of research subject

As a volunteer participant you participation is completely voluntary, you may choose to answer only the questions you wish and can withdraw at any time. Once you withdraw, you information will be withdrawn as well. If you want to withdraw after the survey completion, please contact the researcher Zhengzhe He within 2 weeks to discontinue participation at 250-960-5741, or hez@unbc.ca. For any questions, inquiries or copy of results you can contact zhengzhe He at hez@unbc.ca , 250-960-5741 or Dr. Chris Opio at opio@unbc.ca , 250-960-5868. Complaints may be addressed to the Office of Research, UNBC, 250-960-5820, or reb@unbc.ca.

Signature of Research Subject

I understand the information provided for the study ``The Perception of export barriers to China by Canadian Forest firms" as described herein. My questions have been answered to my satisfaction, and I and the firms I belonged voluntarily agree to participate in this study. My firm and I have been given a copy of this form.

Researcher:(Print)_____

Signature: _____

Date:_____

Participant :(Print)_____

Signature:_____

Date:_____

The Barriers That Forest Firms Experience or Perceive on Exporting to China

1. Which of these products does your firm produce? (select all that apply)

- ☐ Log
- ☐ Lumber
- ☐ Veneer
- ☐ Particle Board
- ☐ Fiberboard
- ☐ Plywood & Panels
- ☐ Other wood articles
- ☐ Pulp, waste and scrap of paper or paperboard
- ☐ Newsprint and other paper board products
- ☐ Value-added wood products (furniture, flooring, cabinet, etc.)

2. How many employees does your firm currently have?

- ○ Less than 50
- ○ 50 to 99
- ○ 100 to 499
- ○ 500 to 999
- ○ over 1000 (including 1000)

3. How long has your firm been operating?

- ○ Less than 1 year
- ○ 1 to 5 years
- ○ 6 to 10 years
- ○ 11 to 20 years
- ○ over 20 years

4. Does your firm export forest products abroad? If yes, how long has your firm been exporting?

- ○ No
- ○ Less than 1 year
- ○ 1 to 5 years
- ○ 6 to 10 years
- ○ 11 to 20 years
- ○ over 20 years

5. To which countries or regions do you export your forest products? (select all that apply)

- ☐ N/A
- ☐ United States
- ☐ Japan
- ☐ Europe
- ☐ Australia and New Zealand
- ☐ China (Mainland, Hong Kong and Taiwan)
- ☐ Asian countries other than Japan, China
- ☐ Others

6. Has your firm exported products to China? If yes, how long?

- O No
- O Less than 1 year
- O 1 to 5 years
- O 6 to 10 years
- O 11 to 20 years
- O over 20 years

7. What did your firm's average sales turnover range from during 2002-2007? (Canadian dollars)

- O less than 1 million
- O 1 million to 10 million (not including 10 million)
- O 10 million to 50 million (not including 50 million)
- O 50 million to 100 million (not including 100 million)
- O over 100 million

8. What average percentage of your firm's sale turnover was from exports during the period 2002 to 2006?

- O N/A (0 percent)
- O 0 to 10 percent (not including 0)
- O 10 percent to 40 percent (not including 10 percent)
- O over 40 percent

9. What percentage of your firm's sale turnover was from exports during 2007?

- O N/A (0 percent)
- O 0 to 10 percent (not including 0)
- O 10 percent to 40 percent (not including 10 percent)
- O over 40 percent

10. What average percentage of your firm's sale turnover was from exports to China during the period 2002 to 2006?

- O N/A (0 percent)
- O 0 to 10 percent (not including 0)
- O 10 percent to 40 percent (not including 10 percent)
- O over 40 percent

11. What percentage of your firm's sale turnover was from exports to China in 2007?

- O N/A (0 percent)
- O 0 to 10 percent (not including 0)
- O 10 percent to 40 percent (not including 10 percent)
- O over 40 percent

12. How important is the development of the Chinese market to your firm?

- O Most important
- O Somewhat important
- O Less important
- O Not important at all
- O Do not know

13. Does your firm have a Chinese market export strategy?

- O Yes
- O No

14. The following factors are export barriers. Please select and rank these barriers that your firm has experienced or you perceived during the Chinese markets expansion. Please rank from 1 (=least significant) to 5 (=most significant).

Internal Barriers to Exporting			1	2	3	4	5
Informational Barriers		Limited information to locate or analyze the Chinese market	O	O	O	O	O
		Inconsistent and unreliable international market data from China	O	O	O	O	O
		Business opportunities in China are difficult to identify	O	O	O	O	O
		Inability to contact overseas customers in China	O	O	O	O	O
Functional Barriers		Lack of managerial time to deal with Chinese exports	O	O	O	O	O
		Inadequate or untrained personnel	O	O	O	O	O
		Lack of excess production capacity	O	O	O	O	O
		Shortage of working capital to finance exports	O	O	O	O	O
Marketing Barriers	Products	Hard to develop new products for the Chinese market	O	O	O	O	O
		Need to adapt export product's design or style	O	O	O	O	O
		Unable to meet export product quality standards or species in the Chinese market	O	O	O	O	O
		Unable to meet export package or labelling requirements	O	O	O	O	O
		Hard to offer technical or aftersales service	O	O	O	O	O
	Prices	Can not offer satisfactory prices to customers	O	O	O	O	O
		Difficulty in matching competitors' prices	O	O	O	O	O
		Unable to grant credit facilities to foreign customers	O	O	O	O	O
	Distribution	Complexity of distribution channels	O	O	O	O	O
		Hard to access export distribution channels	O	O	O	O	O
		Hard to obtain reliable foreign representation	O	O	O	O	O
		Difficulty in supplying inventory to China	O	O	O	O	O
		Difficulty in maintaining control over Chinese middlemen	O	O	O	O	O
	Logistics	Unavailability of warehousing facilities in China	O	O	O	O	O
		Excessive transportation or insurance costs	O	O	O	O	O
	Promotion	Need to adjust export promotional activities	O	O	O	O	O

External Barriers to Exporting			1	2	3	4	5
Procedural Barriers		Unfamiliar with China's exporting procedures or paperwork	O	O	O	O	O
		Problematic communication with Chinese customers	O	O	O	O	O
		Slow collection of payments from Chinese customers	O	O	O	O	O
Governmental Barriers		Lack of Canadian government assistance or incentives	O	O	O	O	O
		Unfavorable home rules and regulations	O	O	O	O	O
Task Barriers		Different foreign customer habits or attitudes	O	O	O	O	O
		Keen competition in the Chinese market	O	O	O	O	O
	Economic	Poor or deteriorating economic conditions in China	O	O	O	O	O
		Foreign currency exchange risks	O	O	O	O	O
		Political instability in the Chinese market	O	O	O	O	O

Environmental Barriers	Political-legal	Strict exporting rules and regulations in China	O	O	O	O	O
		High tariff and nontariff barriers	O	O	O	O	O
	Sociocultural	Unfamiliar Chinese business practices	O	O	O	O	O
		Different sociocultural traits	O	O	O	O	O
		Verbal or nonverbal language differences	O	O	O	O	O

Others (please specify)

15. What type of help would you like to receive to increase your exports to China?

16. What assistance would you benefit from to increase future exports capacity?

Appendix B. ANOVA Test for Non-responses Bias

ANOVA test for non-response bias

		Sum of Squares	df	Mean Square	F	Sig.
Limited information	Between Groups	4.838	2	2.419	1.013	.381
	Within Groups	47.771	20	2.389		
	Total	52.609	22			
Unreliable data	Between Groups	2.885	2	1.442	.617	.550
	Within Groups	44.433	19	2.339		
	Total	47.318	21			
Business opportunities are difficult to identify	Between Groups	11.643	2	5.821	2.944	.078
	Within Groups	35.595	18	1.978		
	Total	47.238	20			
Inability to contact oversea customer	Between Groups	3.790	1	3.790	1.734	.205
	Within Groups	37.157	17	2.186		
	Total	40.947	18			
Lack of managerial time	Between Groups	1.065	2	.533	.201	.819
	Within Groups	58.295	22	2.650		
	Total	59.360	24			
Inadequate or untrained personnel	Between Groups	.368	2	.184	.062	.940
	Within Groups	62.590	21	2.980		
	Total	62.958	23			
Lack of excessive production capacity	Between Groups	5.669	2	2.835	1.380	.280
	Within Groups	32.857	16	2.054		
	Total	38.526	18			
Short of working capital to finance exports	Between Groups	3.158	2	1.579	.789	.471
	Within Groups	32.000	16	2.000		
	Total	35.158	18			
Hard to develop new products	Between Groups	4.467	2	2.233	1.420	.269
	Within Groups	26.733	17	1.573		
	Total	31.200	19			
Need to adapt new design and style	Between Groups	.076	1	.076	.043	.838
	Within Groups	33.733	19	1.775		
	Total	33.810	20			
Unable to meet quality standards or	Between Groups	7.063	2	3.531	2.263	.129

		Sum of Squares	df	Mean Square	F	Sig.
species	Within Groups	32.771	21	1.561		
	Total	39.833	23			
Unable to meet package or labelling requirement	Between Groups	.438	1	.438	.817	.381
	Within Groups	7.500	14	.536		
	Total	7.938	15			
Hard to offer technical or aftersales service	Between Groups	4.723	1	4.723	1.991	.180
	Within Groups	33.214	14	2.372		
	Total	37.938	15			
Can not offer satisfactory prices to customers	Between Groups	8.238	2	4.119	1.444	.260
	Within Groups	57.067	20	2.853		
	Total	65.304	22			
Difficulty in matching competitor's prices	Between Groups	19.232	2	9.616	5.717	.011
	Within Groups	33.638	20	1.682		
	Total	52.870	22			
Unable to grant credit facilities to foreign customers	Between Groups	.036	1	.036	.013	.912
	Within Groups	39.714	14	2.837		
	Total	39.750	15			
Complexity of distribution channels	Between Groups	5.882	1	5.882	3.151	.096
	Within Groups	28.000	15	1.867		
	Total	33.882	16			
Hard to access export distribution channels	Between Groups	.949	1	.949	.407	.533
	Within Groups	34.933	15	2.329		
	Total	35.882	16			
Hard to obtain reliable foreign representation	Between Groups	8.039	2	4.020	1.618	.229
	Within Groups	39.750	16	2.484		
	Total	47.789	18			
Hard to supply inventory to China	Between Groups	4.004	1	4.004	2.444	.140
	Within Groups	22.933	14	1.638		
	Total	26.938	15			
Hard to contral over Chinese middlemen	Between Groups	1.778	1	1.778	.889	.360
	Within Groups	32.000	16	2.000		
	Total	33.778	17			

		Sum of Squares	df	Mean Square	F	Sig.
Unavailability of warehouse facilities	Between Groups	.368	1	.368	.566	.464
	Within Groups	9.750	15	.650		
	Total	10.118	16			
Excessive transportation or insurance costs	Between Groups	7.917	2	3.958	1.839	.188
	Within Groups	38.750	18	2.153		
	Total	46.667	20			
Need to adjust export promotional activities	Between Groups	.282	1	.282	.119	.735
	Within Groups	35.600	15	2.373		
	Total	35.882	16			
Unfamilar with China's exporting produres or paperwork	Between Groups	10.268	2	5.134	1.761	.206
	Within Groups	43.732	15	2.915		
	Total	54.000	17			
Problematic communication with Chinese customers	Between Groups	2.882	1	2.882	1.005	.332
	Within Groups	43.000	15	2.867		
	Total	45.882	16			
Slow collection of payments form Chinese customers	Between Groups	2.750	2	1.375	.519	.605
	Within Groups	39.750	15	2.650		
	Total	42.500	17			
Lack of Canadian goverment assistance or incentives	Between Groups	.313	1	.313	.143	.710
	Within Groups	39.438	18	2.191		
	Total	39.750	19			
Unfavorable home rules and regualtions	Between Groups	6.799	2	3.400	1.184	.331
	Within Groups	45.938	16	2.871		
	Total	52.737	18			
Different foreign customer habits or attitudes	Between Groups	.031	1	.031	.014	.908
	Within Groups	33.733	15	2.249		
	Total	33.765	16			
Poor or deteriorating economic conditions in China	Between Groups	.529	1	.529	.882	.362
	Within Groups	9.000	15	.600		
	Total	9.529	16			
Foreign currency exchange risks	Between Groups	1.063	1	1.063	.695	.418
	Within Groups	22.938	15	1.529		

		Sum of Squares	df	Mean Square	F	Sig.
	Total	24.000	16			
High tariff and nontariff barriers	Between Groups	1.667	1	1.667	.795	.388
	Within Groups	29.333	14	2.095		
	Total	31.000	15			
Different sociocultural traits	Between Groups	4.504	1	4.504	1.962	.182
	Within Groups	34.438	15	2.296		
	Total	38.941	16			
Verbal or nonverbal language differences	Between Groups	12.250	2	6.125	2.596	.106
	Within Groups	37.750	16	2.359		
	Total	50.000	18			

Appendix C. T-test for EBs' perceptions in BC Costal and Interior regions

Perceptions of export barriers in Coastal and Interior regions

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Limited information	Equal variances assumed	.017	.896	-.047	21	.963	-.032	.676	-1.438	1.374
	Equal variances not assumed			-.047	16.772	.963	-.032	.681	-1.471	1.407
Unreliable data	Equal variances assumed	.131	.721	.090	20	.929	.060	.667	-1.331	1.451
	Equal variances not assumed			.089	16.693	.930	.060	.674	-1.364	1.484
Business opportunities are difficult to identify	Equal variances assumed	.320	.578	.054	19	.957	.038	.708	-1.444	1.521
	Equal variances not assumed			.055	15.739	.957	.038	.697	-1.441	1.518
Inability to contact oversea customer	Equal variances assumed	.111	.743	.748	17	.464	.564	.754	-1.026	2.154
	Equal variances not assumed			.720	8.976	.490	.564	.783	-1.208	2.336
Lack of managerial time	Equal variances assumed	.679	.418	.670	23	.509	.444	.663	-.927	1.816
	Equal variances not assumed			.643	14.760	.530	.444	.691	-1.031	1.920
Inadequate or untrained personnel	Equal variances assumed	.167	.686	.407	22	.688	.289	.711	-1.185	1.763
	Equal variances not assumed			.397	15.691	.697	.289	.729	-1.258	1.836
Lack of excessive production capacity	Equal variances assumed	.311	.585	.646	17	.527	.474	.734	-1.074	2.023
	Equal variances not assumed			.685	11.367	.507	.474	.692	-1.043	1.991
Short of working capital to finance exports	Equal variances assumed	.398	.536	-.791	17	.440	-.551	.697	-2.022	.919
	Equal variances not assumed			-.735	8.312	.483	-.551	.750	-2.270	1.168

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Hard to develop new products	Equal variances assumed	.480	.497	.074	18	.942	.048	.642	-1.302	1.397
	Equal variances not assumed			.065	7.476	.949	.048	.727	-1.650	1.745
Need to adapt new design and style	Equal variances assumed	.311	.584	-.465	19	.647	-.286	.614	-1.571	.999
	Equal variances not assumed			-.436	10.273	.672	-.286	.655	-1.741	1.169
Unable to meet quality standards or species	Equal variances assumed	.456	.506	.139	22	.891	.084	.604	-1.169	1.337
	Equal variances not assumed			.126	9.280	.902	.084	.667	-1.419	1.587
Unable to meet package or labelling requirement	Equal variances assumed	.044	.838	.431	14	.673	.167	.386	-.662	.995
	Equal variances not assumed			.415	9.449	.687	.167	.401	-.735	1.068
Hard to offer technical or aftersales service	Equal variances assumed	1.981	.181	.515	14	.615	.433	.842	-1.373	2.240
	Equal variances not assumed			.536	12.017	.602	.433	.809	-1.329	2.196
Can not offer satisfactory prices to customers	Equal variances assumed	.133	.719	-.846	21	.407	-.627	.741	-2.168	.914
	Equal variances not assumed			-.858	18.018	.402	-.627	.730	-2.161	.907
Difficulty in matching competitor's prices	Equal variances assumed	.341	.566	1.007	21	.325	.683	.678	-.728	2.094
	Equal variances not assumed			1.058	16.538	.305	.683	.646	-.682	2.049
Unable to grant credit facilities to foreign customers	Equal variances assumed	1.265	.280	-.230	14	.821	-.200	.868	-2.063	1.663
	Equal variances not assumed			-.218	9.000	.832	-.200	.917	-2.273	1.873
Complexity of distribution channels	Equal variances assumed	.981	.338	-1.012	15	.328	-.783	.774	-2.433	.866

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
	Equal variances not assumed			-.937	6.489	.382	-.783	.836	-2.792	1.225
Hard to access export distribution channels	Equal variances assumed	.227	.641	.039	15	.970	.030	.785	-1.643	1.703
	Equal variances not assumed			.039	10.772	.970	.030	.775	-1.680	1.741
Hard to obtain reliable foreign representation =	Equal variances assumed	.039	.846	-.477	17	.639	-.414	.868	-2.245	1.416
	Equal variances not assumed			-.455	6.533	.664	-.414	.910	-2.599	1.770
Hard to supply inventory to China	Equal variances assumed	.309	.587	-.313	14	.759	-.250	.798	-1.962	1.462
	Equal variances not assumed			-.296	4.740	.780	-.250	.845	-2.458	1.958
Hard to contral over Chinese middlemen	Equal variances assumed	.667	.426	-.462	16	.650	-.333	.722	-1.863	1.197
	Equal variances not assumed			-.432	8.539	.677	-.333	.772	-2.094	1.427
Unavailability of warehouse facilities	Equal variances assumed	.042	.841	-.038	15	.970	-.017	.437	-.948	.915
	Equal variances not assumed			-.036	6.784	.972	-.017	.461	-1.114	1.080
Excessive transportation or insurance costs	Equal variances assumed	.017	.899	.395	19	.697	.286	.723	-1.227	1.798
	Equal variances not assumed			.394	11.971	.701	.286	.726	-1.296	1.867
Need to adjust export promotional activities	Equal variances assumed	.002	.968	-.975	15	.345	-.742	.761	-2.365	.880
	Equal variances not assumed			-.945	9.493	.368	-.742	.786	-2.507	1.022
Unfamilar with China's exporting produres or paperwork	Equal variances assumed	6.859	.019	.176	16	.863	.156	.887	-1.725	2.037
	Equal variances not assumed			.187	15.383	.854	.156	.832	-1.613	1.925

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Problematic communication with Chinese customers	Equal variances assumed	1.844	.195	.465	15	.649	.462	.993	-1.655	2.578
	Equal variances not assumed			.532	6.374	.612	.462	.867	-1.630	2.553
Slow collection of payments form Chinese customers	Equal variances assumed	.351	.562	.706	16	.490	.643	.910	-1.286	2.572
	Equal variances not assumed			.597	4.017	.583	.643	1.077	-2.343	3.629
Lack of Canadian goverment assistance or incentives	Equal variances assumed	.018	.896	-.396	18	.697	-.275	.694	-1.732	1.183
	Equal variances not assumed			-.392	12.047	.702	-.275	.701	-1.801	1.252
Unfavorable home rules and regualtions	Equal variances assumed	4.318	.053	1.113	17	.281	.986	.886	-.883	2.855
	Equal variances not assumed			1.417	12.335	.181	.986	.696	-.525	2.497
Different foreign customer habits or attitudes	Equal variances assumed	2.592	.128	-.505	15	.621	-.400	.792	-2.088	1.288
	Equal variances not assumed			-.643	13.517	.531	-.400	.622	-1.739	.939
Keen competition in the Chinese	Equal variances assumed	17.440	.001	-.703	14	.494	-.583	.830	-2.363	1.196
	Equal variances not assumed			-1.246	11.000	.239	-.583	.468	-1.613	.447
Poor or deteriorating economic conditions in China	Equal variances assumed	2.493	.135	.355	15	.728	.150	.422	-.751	1.051
	Equal variances not assumed			.429	11.956	.676	.150	.350	-.613	.913
Foreign currency exchange risks	Equal variances assumed	1.666	.216	-.862	15	.402	-.567	.657	-1.967	.834
	Equal variances not assumed			-.704	5.314	.511	-.567	.805	-2.600	1.467
Political instability in the Chinese market	Equal variances assumed	.783	.392	.674	13	.512	.500	.742	-1.103	2.103

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
	Equal variances not assumed			.777	7.277	.461	.500	.643	-1.009	2.009
Strict exporting rules and regulations in China	Equal variances assumed	.989	.338	.753	13	.465	.614	.814	-1.146	2.373
	Equal variances not assumed			.931	8.682	.377	.614	.659	-.885	2.112
High tariff and nontariff barriers	Equal variances assumed	2.087	.171	.793	14	.441	.667	.840	-1.136	2.469
	Equal variances not assumed			1.013	8.811	.338	.667	.658	-.827	2.160
Unfamiliar Chinese business practices	Equal variances assumed	.047	.831	-.723	14	.482	-.750	1.038	-2.976	1.476
	Equal variances not assumed			-.692	4.833	.521	-.750	1.084	-3.567	2.067
Different sociocultural traits	Equal variances assumed	.191	.668	-.773	15	.452	-.650	.841	-2.443	1.143
	Equal variances not assumed			-.746	7.023	.480	-.650	.871	-2.709	1.409
Verbal or nonverbal language differences	Equal variances assumed	7.267	.015	.000	17	1.000	.000	.846	-1.786	1.786
	Equal variances not assumed			.000	14.173	1.000	.000	.732	-1.568	1.568

Appendix D.1 Correlation test of firm size and export barriers

Correlations (Spearman's rho) between firm size and export barriers			
Export barriers	correlation Coefficient	Employee number	Average revenue 2002-2007
Limited information	Correlation Coefficient	-.262	1.000
	Sig. (2-tailed)	.227	#NULL!
	N	23	27
Unreliable data	Correlation Coefficient	-.093	-.724**
	Sig. (2-tailed)	.682	.000
	N	22	19
Business opportunities are difficult to identify	Correlation Coefficient	-.430	-.436
	Sig. (2-tailed)	.052	.071
	N	21	18
Inability to contact oversea customers	Correlation Coefficient	-.637**	-.651**
	Sig. (2-tailed)	.003	.003
	N	19	18
Lack of managerial time	Correlation Coefficient	-.349	-.459
	Sig. (2-tailed)	.087	.074
	N	25	16
Inadequate or untrained personnel	Correlation Coefficient	-.339	-.445*
	Sig. (2-tailed)	.105	.043
	N	24	21
Lack of excessive production capacity	Correlation Coefficient	-.247	-.519*
	Sig. (2-tailed)	.308	.016
	N	19	21
Short of working capital to finance exports	Correlation Coefficient	-.290	-.155
	Sig. (2-tailed)	.228	.552
	N	19	17
Hard to develop new products	Correlation Coefficient	.046	-.430
	Sig. (2-tailed)	.847	.097
	N	20	16
Need to adapt new design and style	Correlation Coefficient	-.302	.044
	Sig. (2-tailed)	.183	.867
	N	21	17
Unable to meet quality standards or species	Correlation Coefficient	-.265	-.317
	Sig. (2-tailed)	.211	.200
	N	24	18
Unable to meet package or labelling requirement	Correlation Coefficient	-.126	.158
	Sig. (2-tailed)	.642	.495
	N	16	21
Hard to offer technical or aftersales service	Correlation Coefficient	-.096	-.165
	Sig. (2-tailed)	.722	.572
	N	16	14

Export barriers	correlation Coefficient	Employee number	Average revenue 2002-2007
Can not offer satisfactory prices to customers	Correlation Coefficient	-.477*	-.144
	Sig. (2-tailed)	.021	.623
	N	23	14
Difficulty in matching competitor's prices	Correlation Coefficient	-.085	-.386
	Sig. (2-tailed)	.701	.093
	N	23	20
Unable to grant credit facilities to foreign customers	Correlation Coefficient	-.079	-.140
	Sig. (2-tailed)	.772	.557
	N	16	20
Complexity of distribution channels	Correlation Coefficient	-.188	-.172
	Sig. (2-tailed)	.471	.557
	N	17	14
Hard to access export distribution channels	Correlation Coefficient	-.098	-.346
	Sig. (2-tailed)	.709	.206
	N	17	15
Hard to obtain reliable foreign representation	Correlation Coefficient	-.521*	-.341
	Sig. (2-tailed)	.022	.214
	N	19	15
Hard to supply inventory to China	Correlation Coefficient	-.434	-.517*
	Sig. (2-tailed)	.093	.034
	N	16	17
Hard to control over Chinese middlemen	Correlation Coefficient	-.156	-.647*
	Sig. (2-tailed)	.535	.012
	N	18	14
Unavailability of warehouse facilities	Correlation Coefficient	-.181	-.528*
	Sig. (2-tailed)	.486	.035
	N	17	16
Excessive transportation or insurance costs	Correlation Coefficient	-.005	-.347
	Sig. (2-tailed)	.982	.224
	N	21	14
Need to adjust export promotional activities	Correlation Coefficient	-.159	.067
	Sig. (2-tailed)	.542	.792
	N	17	18
Unfamilar with China's exporting produres or paperwork	Correlation Coefficient	.161	-.253
	Sig. (2-tailed)	.522	.363
	N	18	15
Problematic communication with Chinese customers	Correlation Coefficient	-.558*	-.289
	Sig. (2-tailed)	.020	.316
	N	17	14
Slow collection of payments form Chinese customers	Correlation Coefficient	-.185	-.629*
	Sig. (2-tailed)	.462	.012

Export barriers	correlation Coefficient	Employee number	Average revenue 2002-2007
	N	18	15
Lack of Canadian goverment assistance or incentives	Correlation Coefficient	-.440	-.429
	Sig. (2-tailed)	.052	.097
	N	20	16
Unfavorable home rules and regualtions	Correlation Coefficient	-.058	-.458
	Sig. (2-tailed)	.814	.056
	N	19	18
Different foreign customer habits or attitudes	Correlation Coefficient	-.514*	-.167
	Sig. (2-tailed)	.035	.523
	N	17	17
Keen competition in the Chinese market	Correlation Coefficient	-.102	-.437
	Sig. (2-tailed)	.708	.104
	N	16	15
Poor or deteriorating economic conditions in China	Correlation Coefficient	-.173	-.240
	Sig. (2-tailed)	.507	.408
	N	17	14
Foreign currency exchange risks	Correlation Coefficient	-.357	-.433
	Sig. (2-tailed)	.159	.107
	N	17	15
Political instability in the Chinese market	Correlation Coefficient	-.404	-.426
	Sig. (2-tailed)	.135	.114
	N	15	15
Strict exporting rules and regulations in China	Correlation Coefficient	-.162	-.553*
	Sig. (2-tailed)	.564	.040
	N	15	14
High tariff and nontariff barriers	Correlation Coefficient	-.060	-.192
	Sig. (2-tailed)	.825	.530
	N	16	13
Unfamiliar Chinese business practices	Correlation Coefficient	-.731**	-.183
	Sig. (2-tailed)	.001	.513
	N	16	15
Different sociocultural traits	Correlation Coefficient	-.594*	-.798**
	Sig. (2-tailed)	.012	.001
	N	17	14
Verbal or nonverbal language differences	Correlation Coefficient	-.298	-.880**
	Sig. (2-tailed)	.215	.000
	N	19	15

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix. D.2. Correlation test of export experience and export barriers

Correlations between export experience and perception of export barriers

		Firm's total exporting years	Years of exporting to China
Limited information	Correlation Coefficient	-.043	-.166
	Sig. (2-tailed)	.849	.450
	N	22	23
Unreliable data	Correlation Coefficient	-.350	-.060
	Sig. (2-tailed)	.120	.791
	N	21	22
Hard to identify business opportunities in China	Correlation Coefficient	-.053	-.370
	Sig. (2-tailed)	.828	.109
	N	19	20
Inability to contact oversea customers	Correlation Coefficient	-.294	-.427
	Sig. (2-tailed)	.223	.069
	N	19	19
Lack of managerial time	Correlation Coefficient	-.259	-.589**
	Sig. (2-tailed)	.222	.002
	N	24	25
Inadequate or untrained personnel	Correlation Coefficient	-.217	-.568**
	Sig. (2-tailed)	.320	.004
	N	23	24
Lack of excessive production capacity	Correlation Coefficient	-.213	-.023
	Sig. (2-tailed)	.382	.924
	N	19	19
Short of working capital to finance exports	Correlation Coefficient	-.533*	-.394
	Sig. (2-tailed)	.019	.095
	N	19	19
Hard to develop new products	Correlation Coefficient	-.338	.193
	Sig. (2-tailed)	.146	.414
	N	20	20
Need to adapt new design and style	Correlation Coefficient	-.575**	-.356
	Sig. (2-tailed)	.006	.114
	N	21	21
Unable to meet quality standards or species	Correlation Coefficient	-.086	-.011
	Sig. (2-tailed)	.689	.959
	N	24	24
Unable to meet package or labelling requirements	Correlation Coefficient	-.349	-.104
	Sig. (2-tailed)	.185	.701
	N	16	16
Hard to offer technical or aftersales service	Correlation Coefficient	-.536*	-.261
	Sig. (2-tailed)	.032	.328
	N	16	16
Can not offer satisfactory prices to customers	Correlation Coefficient	-.109	-.164

		Firm's total exporting years	Years of exporting to China
	Sig. (2-tailed)	.620	.454
	N	23	23
Difficulty in matching competitor's prices	Correlation Coefficient	.025	.031
	Sig. (2-tailed)	.909	.889
	N	23	23
Unable to grant credit facilities to foreign customers	Correlation Coefficient	-.371	-.222
	Sig. (2-tailed)	.157	.408
	N	16	16
Complexity of distribution channels	Correlation Coefficient	-.151	-.309
	Sig. (2-tailed)	.563	.228
	N	17	17
Hard to access export distribution channels	Correlation Coefficient	-.354	-.417
	Sig. (2-tailed)	.163	.096
	N	17	17
Slow collection of payments form Chinese customers	Correlation Coefficient	-.244	-.515*
	Sig. (2-tailed)	.315	.024
	N	19	19
Hard to supply inventory to China	Correlation Coefficient	-.255	-.451
	Sig. (2-tailed)	.341	.080
	N	16	16
Difficulty in maintaining control over Chinese middlemen	Correlation Coefficient	-.321	-.360
	Sig. (2-tailed)	.194	.142
	N	18	18
Unavailability of warehouse facilities	Correlation Coefficient	-.552*	-.356
	Sig. (2-tailed)	.022	.161
	N	17	17
Excessive transportation or insurance costs	Correlation Coefficient	-.365	.135
	Sig. (2-tailed)	.104	.560
	N	21	21
Need to adjust export promotional activities	Correlation Coefficient	-.474	-.441
	Sig. (2-tailed)	.055	.076
	N	17	17
Unfamiliar with China's exporting procedures or paperwork	Correlation Coefficient	.055	.094
	Sig. (2-tailed)	.852	.730
	N	14	16
Problematic communication with Chinese customers	Correlation Coefficient	-.286	-.399
	Sig. (2-tailed)	.266	.112
	N	17	17
Slow collection of payments form Chinese customers	Correlation Coefficient	-.250	-.477*
	Sig. (2-tailed)	.317	.045
	N	18	18
Lack of Canadian goverment assistance or incentives	Correlation Coefficient	-.416	-.620**
	Sig. (2-tailed)	.068	.004
	N	20	20
Unfavorable home rules and regualtions	Correlation Coefficient	-.298	-.127
	Sig. (2-tailed)	.215	.605
	N	19	19

		Firm's total exporting years	Years of exporting to China
Different foreign customer habits or attitudes	Correlation Coefficient	-.487*	-.486*
	Sig. (2-tailed)	.047	.048
	N	17	17
Keen competition in the Chinese market	Correlation Coefficient	-.495	-.368
	Sig. (2-tailed)	.051	.160
	N	16	16
Poor or deteriorating economic conditions in China	Correlation Coefficient	-.333	-.280
	Sig. (2-tailed)	.191	.277
	N	17	17
Foreign currency exchange risks	Correlation Coefficient	-.591*	-.555*
	Sig. (2-tailed)	.013	.021
	N	17	17
Political instability in the Chinese market	Correlation Coefficient	-.456	-.494
	Sig. (2-tailed)	.088	.062
	N	15	15
Strict exporting rules and regulations in China	Correlation Coefficient	-.211	-.090
	Sig. (2-tailed)	.451	.749
	N	15	15
High tariff and nontariff barriers	Correlation Coefficient	-.358	-.150
	Sig. (2-tailed)	.174	.579
	N	16	16
Unfamiliar Chinese business practices	Correlation Coefficient	-.420	-.545*
	Sig. (2-tailed)	.106	.029
	N	16	16
Different sociocultural traits	Correlation Coefficient	-.229	-.525*
	Sig. (2-tailed)	.376	.031
	N	17	17
Verbal or nonverbal language differences	Correlation Coefficient	-.068	-.554*
	Sig. (2-tailed)	.781	.017
	N	19	18

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).