

University of Strathclyde Department of Marketing

Canadian SMEs, Export Barriers and the Internet

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A thesis presented in fulfilment of the requirements for the degree of Doctor of  
Philosophy

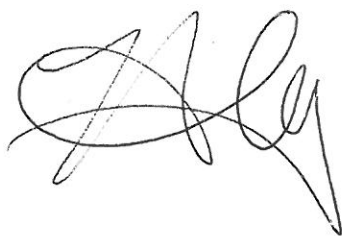
2011

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Date:

July 1, 2011

## **Abstract**

This thesis explores the intersection of export, small firms and the Internet. In particular, the challenges of export barriers and the role of the web will be examined. Advances in technology, especially Internet technology, open new opportunities for exporters. The Internet enables virtual interaction between stakeholders in many markets around the world. Yet, with these opportunities come challenges. Exporters face economic, regulatory and social challenges in foreign markets. Transportation distances, import/export documentation, and language differences are just some of the challenges an exporter faces abroad. Large firms, with more resources, can acquire or develop know-how to address these challenges. Small and medium-sized firms, with fewer resources, are subject to considerable challenges in overcoming export hurdles and adopting Internet technology.

Using a model developed from the review of literature, this study provides an integrated examination of SME exporters and the role of an Internet strategy. The factors for exploring Internet strategy draw from multiple activities, including outward looking Internet usage, Web 2.0 online network participation, and website characteristics and presence. Central to the model are marketing decisions and external forces that represent challenges for SMEs. Both are linked specifically to strategy and performance, providing an insight into the Internet's role in export success.

This study used a multi-method approach to data collection. Survey, website evaluation and online business network data was generated from 83 Canadian SME exporters, with follow-up depth interviews with nine respondents. Qualitative theme

analysis was applied to the interview data, open-ended survey questions and website observations. This informed an integrated analysis using qualitative and quantitative data. Findings indicate SMEs use the Internet and websites to overcome many key export barriers and improve their overall export performance. Owner/managers gather export market information and regard the Internet as a key means of communicating and relationship-building with potential and existing customers. However, the SMEs of this research focus on product-driven websites; evidence suggest the firms are underutilizing the opportunity to provide an interactive and internationalized experience for their foreign users. The Internet is important for mitigating external barriers such as foreign regulations, and language, while websites were found to be less utilized for these external barriers. Recent developments in Web 2.0 appear to offer interesting new approaches to addressing export barriers, but more research is needed in this area. A key outcome of this research is the importance of owner/manager attitude toward the Internet. The more owner/managers value the Internet the more it is used, the more it is used the more export barriers are addressed, and the more export barriers are addressed the better export performance the firms achieve.

The findings from this thesis make several important contributions to the literature/knowledge base. The contributions pertain to the impact of an online strategy regarding export barriers and export performance. The qualitative and quantitative findings show an online strategy helps SMEs overcome several marketing and EXTERNAL export barriers. These findings add to the work of Leonidou (2004) about export barriers which the author notes are particularly challenging for SMEs. And, this research extends the qualitative work of Tiessen, Wright and Turner (2001),

Tiessen (2003) and Saulnier and Rosson (2004). Several researchers, including Lohrke, McClure Franklin and Frownfelter-Lohrke (2006), Saban and Rau (2005) and Moini and Tesar (2005) have done empirical work about websites as channels. But the work did not involve evaluation of the firm's websites themselves. Nor does this extant work link online performance to export barriers and export performance as completed in this research. Furthermore, the research done in this thesis incorporates preliminary qualitative and quantitative data about SMEs use of Web 2.0 for export. Finally, this research offers a model linking the Internet to export barriers and performance. While the model as a whole needs further testing and validation, it provides an integration of SME strategy, resources, the unique role of the owner/manager, and the influence of the Internet regarding export performance. This model specifically links these factors to export barriers, which is a distinct contribution.

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# **Chapter One: Introduction**

## **1.0 Introduction**

Canadian firms have a long history of producing products and selling them abroad. Spanning primary, secondary and tertiary industries, large, medium and small firms have built a strong, steady source of foreign revenues. Advances in technology, especially Internet technology, open many opportunities for exporters. Yet, with these opportunities come challenges. Exporters face economic, regulatory and social challenges in foreign markets. Small and medium enterprises (SMEs), with fewer resources, are subject to challenges of adopting and implementing Internet technology. This paper explores the intersection of export, small firms and the Internet and examines the role the Internet plays in helping SMEs overcome export barriers and achieve export success.

This chapter provides an overview of the research topic. The first section will describe the research context and the importance of export, SMEs and the Internet in Canada. A brief review of the key themes from the literature will provide the justification for the research objectives. The methodology, overview of respondents and data, analysis, findings and contribution will be summarized next. Finally, the chapter will conclude with an overview of the structure of the thesis.

## **1.1 Research Context**

### **1.1.1 Export**

Export is important in Canada. According to Statistics Canada (2009a), 2007 exports totalled \$463 billion of a roughly \$1 trillion economy. The United States generally

claims about 80% of these exports, while other destinations include Western Europe and the UK (\$38 billion) and Japan (\$10 billion). Primary and secondary industries such as agriculture, energy, forestry, fisheries, industrial goods, machinery and the automotive industry are key export products, though according to the Department of Foreign Affairs and International Trade (2008), service exports totalled \$65 billion in 2005 or about 12.5 percent of Canada's total exports. Orser, Riding and Townsend (2004) estimate that over 40,000 firms exported services in 2004. Exporting firms employ over 2 million Canadians directly and another 3 million indirectly – approximately 1 in every 3 jobs in Canada depends on exports (Canadian Manufacturers and Exporters, 2004).

#### 1.1.2 Small and Medium-sized Businesses (SMEs)

SMEs account for one quarter of Canadian GDP (Industry Canada, 2005). Of the 1,000,000+ businesses in Canada with employees, approximately 990,000 have 1-49 employees and 52,000 have 50-499 employees (Industry Canada, 2009a). According to Statistics Canada (2009c), approximately 8 million employees or 55% of the total private labour force worked for SMEs with 1 to 499 employees. Between 2002 and 2006, 130,000 new small businesses were on average created each year and approximately 70% survive for five years (Industry Canada, 2009a).

Nearly 85% of Canadian exporters were small businesses, responsible for 20% of the total value of exports (Industry Canada, 2006). However, only 1.4% of small businesses export. Small firms export primarily to the United States, though SMEs represented 25% of exports to the European Union, and small firms alone account for 25% of exports to Japan and South America. As noted by Industry Canada (2006),

this “suggests that small businesses sent their exports to a broader range of countries than medium-sized and large firms. Large firms may concentrate on a small number of markets in order to take advantage of economies of scale” (para 6). Yet, for small firms in particular, export barriers can discourage or reduce the attractiveness of exporting. Leonidou (2004) writes that while “dozens” of studies have addressed this issue, the body of research is isolated, fragmented, incomplete, and deficient.

### 1.1.3 The Internet and Web 2.0

Absent from the export barrier research is the role of the Internet. Moini and Tesar (2005) note that while this area of literature is growing, with empirical, cases study and observation-based evidence, gaps exist regarding the SME-particular factors that influence the use of the Internet during internationalization. Embracing e-business can offer many benefits to a firm, regardless of its size. Using the Internet as a business tool can improve coordination within the production process, improve communication with suppliers and customers, optimize supply sources and increase a firm's presence in the marketplace (Industry Canada, 2009b).

Canada's commercial sector makes considerable use of the Internet for business. Statistics Canada (2008b) reports that online sales increased at a double-digit pace for the sixth consecutive year in 2007. Total private and public sector Internet sales hit an estimated \$62.7 billion, up 26% from 2006. Despite the continued strong growth, e-commerce still represents a relatively small fraction of total economic activity. In 2007, online sales of private sector firms accounted for just 2% of total operating revenue, although this was still an increase from less than 1% five years earlier. While online sales increased, the proportion of private sector companies that sold

goods and services online remained stable at about 8%. However, only 7% of small firms sold online compared to 22 percent of large firms. Although the rate of small firms connected to the Internet is increasing it is less than medium-sized and large firms for connection rates and usage. Website ownership rates also increased with firm size. More than twice as many medium-sized (74 percent) and large (90 percent) firms owned websites compared with small firms (36 percent) in 2007. Thus, while there is considerable uptake in Internet use, Canadian SMEs appear to be utilizing this opportunity less than larger firms.

Recent developments in Web 2.0 present exciting opportunities for business. Web 2.0 draws on the knowledge and resources of people and firms connected by the web, using collaborative platforms to enable consumers, employees, suppliers, partners and others to share in what some call “mass collaboration” (Tapscott and Williams, 2006). These platforms include blogs, wikis, chat rooms, peer-to-peer business and social networks, and personal broadcasting forums. Customers exchange experiences in business-hosted forums, consumers post rants about products on chat room sites, employees network with potential partners via business networks, competitors create knowledge wikis – all exciting new developments harnessing the power of the web. Web 2.0 has experienced tremendous growth. Forrester Media estimates social media marketing in the United States alone to be US \$23,000,000,000 or 9% of all advertising spending. They predict this will grow to US \$55,000,000,000 or 19% of all spending by 2014 (Beal, 2009). With the growth of this form of marketing firms have begun to employ more Web 2.0 tools. Bughin, Manyika and Miller (2008) find firms highlight various employee activities related to Web 2.0, such as managing knowledge, fostering collaboration and training. These firms use Web 2.0 tools to

find and serve customers and engage them in product development. For Canadian SMEs, the benefits of Web 2.0 and the Internet in general should help firms overcome export barriers and achieve export success.

## **1.2 Findings from the Literature**

Extensive work investigating the various research themes of export has been completed over forty years. Firm size, the role of management, decision-making and strategy dominate these reviews (Tookey, 1964, Bilkey and Tesar, 1977, Bilkey, 1978), featuring topics like export initiation and timing (Reid, 1981, Rosson, 1988), market selection and entry (Rosson and Reid, 1987, Root, 1994), export barriers (Miesenbock, 1988, Leonidou 2004), and performance (Chetty and Hamilton, 1993, Zou and Stan, 1998). Bell and Young (1998) and Jones (2001 and 1999) suggest product, firm, industry and external variables affect the pace and scope of small firm internationalization. Decisions pertaining to market selection and entry are critical challenges for the firm (Root, 1994) and represent key export barriers (Leonidou, 2004). Other key barriers include regulatory, economic and cultural forces.

For small firms, accessing financial and knowledge resources is a regular theme in the literature (Scott and Bruce, 1982) applicable to both internationalization and the use of I.T. Central to the success of overcoming this challenge, and central to the success of the firm in general, is the owner/manager who starts and grows the firm (Etemad, 2004). Oviatt and McDougall (1994), Jones (1999 and 2001), Jones and Coviello (2005) and Acedo and Jones (2007) demonstrate the link between this individual and the timing and pace of internationalization, while Thong (1999) draws a similar

connection to I.T. adoption and use. It appears the SME owner/manager is a key champion of new and ongoing initiatives.

One such initiative is the development of an online strategy. Varadarajan and Yadav (2002) conclude the Internet provides greater information richness for relationship-building and transaction development. This enables better access to information, easier and better communication, relationship building and customer leveraging. Websites play an important role in developing this online strategy (Kim, Shaw and Schneider, 2003). Developing an effective website is crucial to harnessing the benefits of the Internet (Elsammani, Hackney and Scown, 2004). In part, it can help build connectivity which is a hallmark of new developments in Web 2.0. Beyond just websites, Web 2.0 is an emerging Internet-based community of consumers, employees, suppliers, partners and others who share in what some call ‘mass collaboration’ (Tapscott and Williams, 2006). Collectively, these elements of an online strategy represent critical opportunities for addressing export barriers for SMEs and contributing to overall export performance. This seems particularly germane given the concerns Balabanis et al (2004) raise about the lack of research developed about the role of the Internet regarding export barriers and the “serious constraints to the effective exploitation of these opportunities” (362). As Hornby et al (2002) argue, the exporting SMEs should have a “higher propensity for Internet uptake” because of their generally innovative nature (214).

Thus, emerging from literature are several key directions for research, including:

- What export barriers do Canadian SMEs encounter?

- What role does the Internet serve in helping these SMEs overcome these barriers?
- How does an online strategy affect export performance?

### **1.3 Research Objectives**

As Leonidou (2004) notes, research about export barriers has many gaps. One clear area for further research is how SME exporters use the Internet to overcome export barriers and achieve export success. To examine this topic, this thesis will pursue the following objectives:

1. To synthesize, critique and extend the existing export, SME and Internet/Web 2.0 research. Specific attention will be given to the challenge of export and I.T. adoption barriers for SMEs
2. To develop a model that encompasses the strategic, resource and owner/manager dynamics influencing SME exporters use of an online strategy and how these factors influence export performance
3. To collect data about Internet use and export performance among a group of Canadian SMEs. Particular attention will be given to Internet search and communication activities, website use and performance, and online networking
4. To complete a critical analysis of the model and data towards developing an integrated understanding of Canadian SME exporters use of the Internet and its role in helping these firms overcome export barriers and achieve export success.



5. To provide recommendations to SME exporters about effective use of the Internet and Web 2.0 strategies for export barriers
6. To provide directions for future research and theory development

To achieve these objectives a multiple methods approach will be used. This will be described in the next section.

#### **1.4 Research Methodology**

There is a growing call for multiple methods research in the literature. Jick notes there is “a distinct tradition in the literature on social science research methods that advocates the use of multiple methods. This form of research strategy is usually described as one of convergent methodology, a multi-method form of ‘triangulation’” (Plano Clark and Creswell, 2008, 107). The use of quantitative and qualitative methods should be seen as complimentary means of validating outcomes. Jick suggests multiple methods “can capture a more complete, holistic, and contextual portrayal of the unit(s) under study (Plano Clark and Creswell, 2008, 109). One result is a richer understanding of the phenomena under study.

Data for this research study was generated using an online survey, website evaluations, a national database of Canadian firms, and participation data from an online business network. Follow-up depth interviews were completed with nine respondents. For the purposes of this research, SMEs will include Canadian companies with up to \$100 m in sales and less than 250 employees and are primarily independent (i.e. not a subsidiary). The firms export to at least one other country and maintain a website with at least English content. The survey was developed with both

Likert-scale, multi-option, and open-ended questions regarding export and Internet experience. Invitations to participate were circulated by Export Development Canada (EDC) and directly to a judgment sample generated from the national database. While not all Canadian SMEs firms currently or recently interact with these organizations, both have considerable databases of relevant firms. Upon receipt of a completed survey, a respondent's website was identified and evaluated. The evaluation instrument was a pilot version validated by a review of trade literature. The instrument includes ten criteria and a numeric scale of one-five, one indicates poor performance or an absence of supporting evidence; five indicates excellent performance and a clear demonstration of supporting evidence. Respondents' online network intensity was calculated using LinkedIn usage as a measure. This was achieved by obtaining the total number of employees per firm that participate in LinkedIn and the firm's total number of LinkedIn connections. Finally, depth interviews were conducted with nine respondents to delve deeper into their firm's experiences with export and the Internet.

### **1.5 Overview of Respondents and Data**

83 usable surveys were completed. The average firm had 66 employees, with the smallest having 6 and the largest 175. Revenues from these respondents ranged from \$250,000 to \$37,000,000, with the average around \$10,800,000. The businesses that participated in the survey had been in existence for about 20 years; some had started a mere 3 years before completing the survey, while one firm had been in existence for 77 years. 55% of the firms were primary/second industry focused; 45% were involved in service industries. The average firm had an export intensity of 61% or

\$6,646,000. While the majority exported to the United States, respondents had experience in Europe, Asia and the rest of the world. The respondents themselves are owner/managers. On average the respondents held about 2 positions in the firm. 42 of the 83 respondents held ownership in the firm. The average length of association with the firm was 6-10 years.

Website evaluations were completed for 80 of these respondents, as one firm completed the survey anonymously and two of the firms had ceased operations by the time the evaluations were completed. The average rating was 34 out of 50 and the average criterion scores ranged from a high of 4.4 out of 5 for technical functionality to a low of 2.6 for both internationalization of website and the site's transaction orientation.

Finally the firms' online business network intensity was calculated using data from LinkedIn. On average the respondents had about 10 employees LinkedIn, and these LinkedIn employees have an average total of 50 connections. Nineteen companies or 23% have no employees LinkedIn, and twenty-one have no connections (i.e. there are firms with employees LinkedIn but as yet have no connections). The majority of firms (48 of 83 or 58%) have 1-10 employees LinkedIn and 45 firms or 54% have 1-50 total connections.

Nine depth interviews were completed. The firms represent industries including manufacturing, technology, giftware, agribusiness, marine and software. Three firms were micro businesses with only five employees though the average size was fifty-three employees. All of the firms have extensive export experience, active in the

United States, Mexico, Japan, Europe and the Americas. All of the firms generate export revenues of at least 10% of total revenues and average about 57%. Three participants held ownership in their firms, four maintained executive positions and all were directly involved in and/or oversee export activity in their firms. While five respondents had over ten years' experience at the firm, three people indicated they had worked in export at the company for two years or less. Collectively, the respondents bring approximately 60 years of export experience.

## **1.6 Analysis**

Survey, website, network and interview inputs were used to complete qualitative and quantitative analysis. The first stage of analysis included theme-based qualitative data analysis of interview, open-ended responses and website observations. Patton (2002) refers to descriptions and quotations as the raw data of qualitative inquiry, which supports developing an explanation or understanding of SME exporters' use of an online strategy. This provides insight into the unique small firm export context, as well as informing the second, integrated stage of the analysis. Qualitative and quantitative data were iteratively analyzed incorporating survey inputs, website evaluations, Web 2.0 indicators and open-ended and interview data.

## **1.7 Research Findings**

Qualitative analysis indicates the firms of this research experience high to very high impact export barriers, notably finding foreign representation, promotion and communication with customers, foreign regulations, tariffs, currency fluctuations and language differences. Respondents appear to value the Internet for gathering information and communicating with customers, though there are varying degrees of

awareness among the owner/managers. Most indicate the Internet addresses marketing barriers, yet, a review of the firms' website performance and Web 2.0 uptake suggests many of the respondents are under-utilizing key opportunities. In terms of their website performance, the firms of this research offer primarily product-promotion oriented websites. Overall the sites offer little in the way of interactive, relationship-building, and do little to internationalize content for their foreign target markets or customers. While there are firms using Web 2.0 strategies like blogs, hosting website forums, using online business networks, encouraging user-generated content, and employing peer-driven promotion to address export marketing and external barriers, most appear to show no awareness and/or activity in this regard. Interestingly, the firms that did use Web 2.0 generally provide a more interactive experience for site users. Based on the open-ended responses, management's awareness of and attitude towards the value of an online strategy appears to be a key differentiator between firms using the Internet successfully.

In sum, the analysis of this thesis suggests effective websites and online activity are linked to several aspects of export strategy, including market selection, overcoming export barriers and choice of entry mode. Furthermore, an effective online strategy is associated with better export performance.

## **1.8 Contribution and Conclusions**

This research extends the study of export barriers completed by Leonidou (2004) by applying the field of Internet research to his classification of export barriers.

Methodologically, the research of this thesis utilized a website evaluation tool with

quantitative evaluation and qualitative observation data which enabled an assessment of the relationship between export barriers and export performance. The integrated model developed in this research provides an empirical step forward for understanding the role of an Internet strategy in overcoming export barriers, though further work to validate the model is necessary. Central to the model, though, are the marketing and external challenges SME exporters face which integrates theory and practice. For SME owner/managers, specific online strategies for export barriers provide management direction. Online practices and new Web 2.0 activities will add tools to the toolkit for SME owners and managers. Perhaps the most important contribution, though, is understanding the link between attitude, behaviour and performance. Those firms that have at least one champion with a “can do” online orientation appear to successfully implement the benefits of the Internet for exporting more effectively than firms which are unaware or ignorant of these benefits.

The findings of this study are based on a multi-method sample of 83 Canadian SMEs. Given the small sample size of the respondents and the select use of data, generalizations to a larger population are limited. Website evaluation is inherently subjective. Quantitative and qualitative data generated reflect the evaluator’s (s’) bias. While the process was structured to minimize this bias and supporting observations demonstrating the evidence by which the numeric rating was obtained were documented, the analysis would be more robust with multiple evaluations per site.

For all these limitations, there are many opportunities for further research. This study reports on the link between the Internet and export in general. More intensive

investigation into export barriers, market selection and mode of entry merits further consideration. It appears some of the firms of this research are using elements of Web 2.0, inviting more research into the application to export barriers, strategy and performance. Lastly, further model testing and development would solidify the theoretical understanding of this topic.

## **1.9 Thesis Structure**

The research conducted for this dissertation will be structured as follows:

- Chapter Two synthesizes, critiques and extends the existing literature of research pertaining to export and export barriers, SMEs and the Internet. Emerging from the literature review is a model encompassing these three areas and propositions for investigation.
- Chapter Three describes and defends the mixed methodology used to complete the research, including the use of an online survey, website evaluations, a national database of Canadian companies, and the online business network LinkedIn.
- Chapter Four presents the results of data collection including a profile of respondents and
- Chapter Five presents the analysis of the data.
- Chapter Six offers a discussion of the results including theory development and practical recommendations for managers.
- Chapter Seven reflects on the challenges of the research methods and analysis, and offers directions for future research.

- Supplementary materials are provided in the Appendices, and a complete list of research and other materials used or cited provided in the References section.

This structure of thesis is provided below in Figure 1 Overview of Thesis:

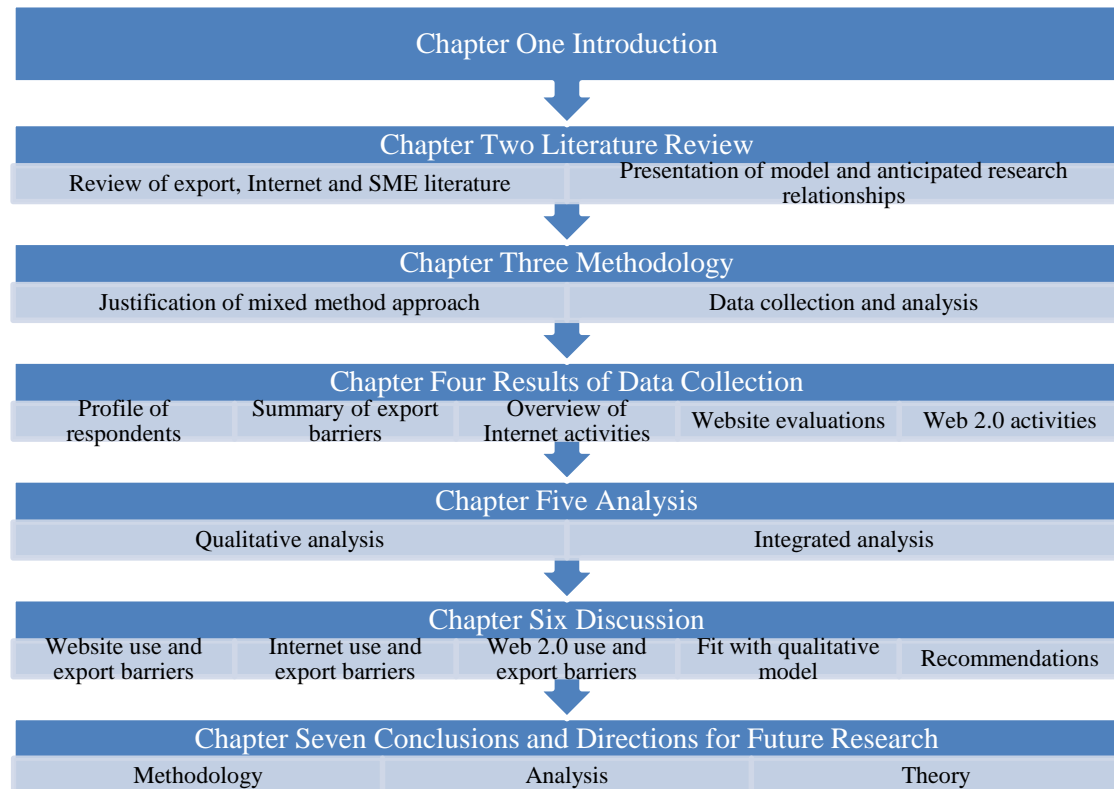


Figure 1: Overview of Thesis



## **Chapter Two: Literature Review**

### **2.0 Introduction**

This thesis explores the intersection of export, small firms and the Internet. The body of research about export and small business theory is well developed but research about the Internet and Web 2.0 in particular is emerging. This review will critique the extant theory and explore opportunities for theory extension. The chapter begins with Section 2.1 and a review of internationalization and export theory, including the rational, process, network and international new venture schools of thought. This leads to a review of the various dimensions of initiating and managing exports, with particular attention given to the literature of export barriers, decision-makers and export performance. Section 2.2 provides a review of Internet research, focusing on websites and Web 2.0. One of the central findings of this review is there appears to be a paucity of research exploring the use of the Internet to address export barriers. Small and medium-sized enterprises (SMEs) require particular attention given unique dynamics of management, access to resource and strategy and the implications for export and Internet use. As such the review of research will pay special attention to these organizations. Section 2.3 presents a review of the core research of this thesis, the existing research that examines export barriers, the Internet and SMEs. The methodologies of these studies will be considered in Chapter Three. Finally, Section 2.4 provides propositions for research and an integrated model that emerge from the literature and shape the research question. The structure of the chapter is presented in Figure 2 Overview of Chapter Two below:

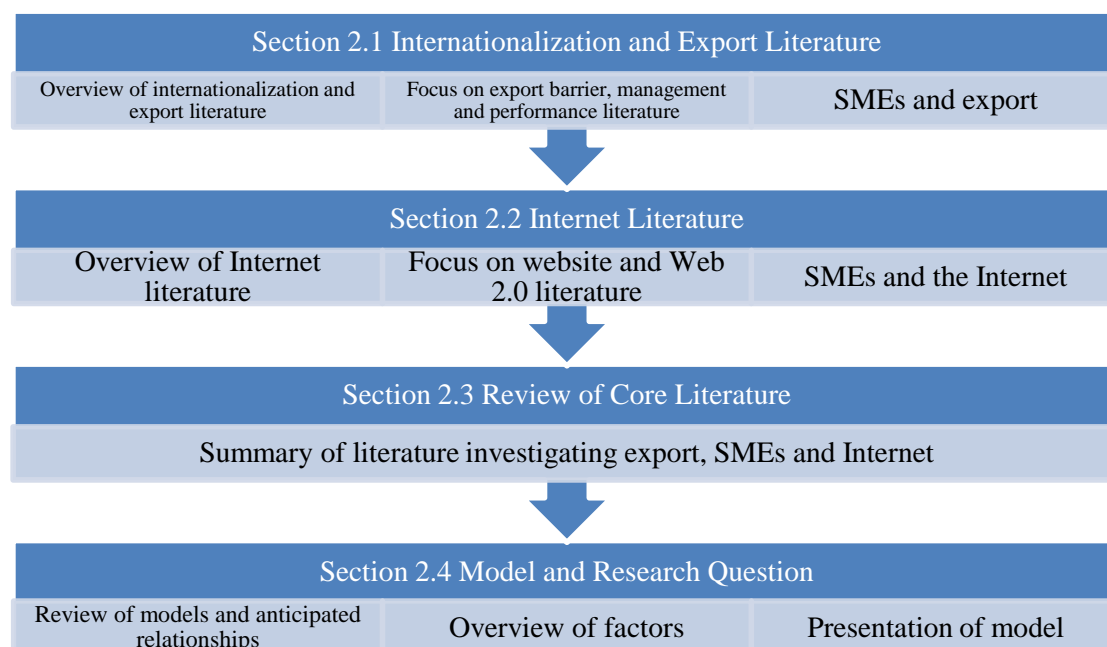


Figure 2. Overview of Chapter Two

## 2.1 Internationalization and Export Theory

### 2.1.1 Introduction to Internationalization Theory

Basic economic theory demonstrates that trade and cross-border investment provide benefits. According to Hufbauer and Elliot (1994), unimpeded cross-border exchange enables greater choice, price and quality advantages for consumers. While economic theory predicts movement of goods and services across boundaries, it is internationalization theory that aims to explain why firms choose to pursue trade and investment outside domestic markets. This section of the literature review will examine the theory of internationalization, including the rational, process, network and international new venture schools of thought.

#### *The Rational School of Internationalization*

The origin of business internationalization theory lies in Coase's (1937) seminal work *The Nature of the Firm*. While a market can operate efficiently, some market costs

can be reduced by “internalizing” functions within a firm. In other words, the transaction costs of the market exceed those of the firm’s management of the same transaction. Thus, a firm can more efficiently engage in some cross-border transactions than contracting the same transactions to foreign firms. Dunning (1988) notes that “without market failure, the *raison d’être* for international production disappears” (2). According to Buckley and Casson (1976) multinational enterprises (MNEs) pursue internationalization because firms bypass imperfect markets with internal markets that cross national boundaries. Because the risks of international ventures can be somewhat mitigated by coordinating transaction and transformation activities, internalization of markets helps explain and predict why firms go international.

Market-driven internationalization is further explained by industry cycles and competition. According to Vernon (1966) innovative new products in cash-rich countries contribute to and provide satisfaction for domestic demand. Other markets may demand these innovative products as well stimulating the firms’ exports. As these products become standardized, foreign competitors achieve market share in the home country via imports. To maintain competitiveness and profitability, domestic firms look abroad to low-cost locations for production. In such locations firms can sell their products to the home market and other markets as well. Thus, while writing at a more macro level Vernon’s ideas have clear implications for the internationalization of firms. Competition also figures prominently into Knickerbocker’s (1973) theory of internationalization, in which large oligopolistic rivals cross borders in anticipation of or in response to the actions of their rivals.

This rational school of transaction optimization is most closely affiliated with the classical economics tradition and is often focused on foreign production. Dunning (1973, 1976) argues that firms operate in foreign markets because they have an advantage over other domestic firms, such as superior product knowledge, better production capabilities, managerial capacity, etc. Dunning's significant contribution to the internationalization discussion is his argument for an "integrated approach" to location-specific endowments of countries and ownership-specific endowments of enterprises (1976, 395). These endowments create greater value in combination with an internalized market and thus lead firms to internationalize.

Whereas the economic school of internationalization assumes the manager has access to all relevant information and experience to rationally determine the best location for foreign production, the process school views internationalization as part of an ongoing progression of learning about and commitment to international markets. This is the focus of the next section.

### *The Process School of Internationalization*

Johanson and Wiedersheim-Paul (1975) and Johanson and Valhne (1977) argue that internationalization is "seen as a process in which the enterprise gradually increases its international involvement. This process involves an interplay between the development of knowledge about foreign markets and operations on the one hand and an increasing commitment of resources to foreign markets on the other" (11). The theory explains and predicts that firms increase their involvement in a country according to gradual stages and that the firm serves increasingly different markets ("markets with successively greater psychic distance" (1977, 13)). The process is

driven by the relationship of commitment and knowledge, as these are the “the most important obstacles” to internationalization (1975, 306). As the firm’s international knowledge (objective and experiential) increases the commitment of resources will as well. Commitment will proceed through exporting to independent representatives to sales and distribution facilities to foreign production.

Reid (1984) argues that it is surprising how popular the stages theory has become given its lack of empirical foundation while Turnbull (1987) notes that this popularity is “inconsistent with empirical and theoretical evidence” (24). The latter writes that a firm’s response to internationalization need not follow prescribed stages. He suggests “there may be limited correspondence between a company’s stage in export development and the organizational structure it employs” (26). In this view the stages model is too deterministic. This is a criticism propounded by Reid (1984), who suggests that internationalization is a “selective and dynamic adaptation” based on the firm’s response to each market opportunity (137).

As part of this dynamic adaptation, some theorists cite the role of a firm’s network of connections, a network which provides access to knowledge and experience in foreign markets. This theory is described in the next section.

### *The Network School of Internationalization*

A network is a social and industrial relationship of members of a value chain. Networks provide market opportunities for small firms on the basis of relationships (Aldrich, Rosen and Woodward, 1987) and may explain why some firms go

international. The value of these relationships to a small firm is connected to the size of the network, the strength of relationships, the quality and diversity of the contacts (Aldrich and Martinez, 2001) and the positioning of the small firm within network (Burt, 1992). Furthermore, the value of a network increases as the amount of resources of the firm's contacts increases. Diversity ensures a greater breadth of information and relations for the small firm (Burt, 1992).

Theory development pertaining to small firm networks is largely based on Granovetter's embedded perspective and social network theory (Shaw, 2006). These theories emphasize the role of the founder, owner and/or key decision maker and predict the small firm's interaction based on the decision-maker as "embedded within fluctuating networks of social relationships" (Shaw, 2006, 6). It is a manager's relations and contacts that define social networks (Burt, 1992). This person's propensity to network and his or her strength of connections is linked to the firm's realization of network utility (BarNir and Smith, 2003). While Street and Cameron's (2007) review of the literature confirms the individual characteristics of the decision-maker influence inter-organizational activities, so too do other internal and external factors. Organizational characteristics and strategy development, relational characteristics and relationship management strategies, and industry factors propagate the literature and explain to some degree the practice and theory of networking.

The theory of networking is closely linked to international business. The knowledge about and commitment to foreign activity emerges from the firm's interaction with customers, suppliers, competitors, friends, and other contacts who often influence strategic action (Coviello and Munro, 1995, Coviello and Munro, 1997). These

contacts create “symbiotic relationships...allowing smaller firms to benefit from the opportunities arising from the expanded reach and efficiencies associated with international networks” (Dana, 2001, 57). Internationalization strategies develop dynamically from multiple inputs (Orser, Spence, Riding and Carrington, 2008), often resulting from niche markets, sub-contracting, spin-offs, ethnic or family connections, and cultural orientations (Dana, 2001). Relationships in a network may “drive, facilitate or inhibit a firm’s international market development” (Coviello and Munro, 1997, 366). Agndal and Chetty (2007) found social relationships played a significant role in the market selection strategies of some SMEs and that networks lead SMEs to make both proactive and reactive use of international contacts.

It has been found that various activities are shared among international networks of firms, including market research, new product development, sales and promotion (Keeble, Lawson, Smith, Moore and Wilkinson, 1998, Coviello and Munro, 1995). The network serves to help the firms overcome marketing weaknesses and develop international marketing capabilities. Chetty and Blankenburg Holm (2000) found that, beyond shared activity, firms can obtain knowledge, benefit from partner experience, and combine resources. Indeed, such networking can help firms overcome some trade barriers (Rauch, 2001). For example, Rauch and Watson (2004) suggest that firms can overcome gaps in their information by drawing on the knowledge of foreign partners.

Thus, as BarNir and Smith (2003) describe, networks are an “increasingly persuasive mode of conducting business” (219) for SMEs and one that represents an important driver of SME theory and internationalization theory (Agndal and Chetty, 2007).

SME internationalization is itself a topic of theoretical and managerial significance – a topic that will be considered in the next section.

### *SME Internationalization and International New Ventures (INV)*

While some of the extant theory considers the small firm, much of it does not (Autio, 2005, Etemad, 2004a and 2004b, Coviello and McAuley, 1999, McDougall and Oviatt, 1996, McDougall, Shane, and Oviatt, 1994, Oviatt and McDougall, 1994). Small firms face unique challenges and decisions in their decision to go international. Process internationalization theory suggests firms develop foreign markets and production through a series of incremental steps. However, small firms may not internationalize according to prescriptive stages. Jones (1999) finds “patterns of international expansion are much more diverse than the internationalization literature has suggested conventionally” (25). Bell (1995), for example, suggests the staged approach to internationalization uses linear models to explain dynamic, interactive, non-linear behaviour. He further questions the relevance of a staged approach to internationalization in industries experiencing rapid growth.

In contrast to the expectations and findings of the rational and process theories, there exist businesses that “from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries” (Oviatt and McDougall, 1994, 49). Work by the authors links early internationalization with entrepreneurship theory. Firms go international sooner than traditional theory explains or predicts because entrepreneurs seize opportunities by marshalling resources in creative ways. Entrepreneurs bring previous industry experience, international experience, education, and an “unusual constellation of



competencies” (McDougall et al, 1994). Entrepreneurs are highly adaptive at interacting with a complex, changing environment (Etemad, 2004b). By virtue of this global orientation these entrepreneurs influence the nature and pace of internationalization (Crick and Jones, 1999). What distinguishes born global entrepreneurs is “their interest and motivation to do business abroad” (Andersson and Victor, 2003, 265). The authors suggest that born global entrepreneurs interpret their environment in a different way, arguably, that enables them to overcome gaps and barriers.

Beyond drawing attention to the INVs themselves and the contribution of these firms to the global economy (Zahra, 2005), Oviatt and McDougall’s (1994) work challenges the state of internationalization theory (Autio, 2005) and links it to entrepreneurship theory. Etemad, Wilkinson and Dana (2010) cite this work and the subsequent developments as having “paved the road for the emergence of an evolving paradigm in International Entrepreneurship” (324). Several key theoretical implications emerge from this new paradigm. An integrated literature review suggests the **rapidity or pace of internationalization** contests stages theory (Chrysostome and Rosson, 2004, Loane and Bell, 2002, Quelch, 1996, Hamill and Gregory, 1997). INV theory also relates to the **ability to internationalize** to overcome traditional barriers like distance, access, cost, scale economies, lack of knowledge, lack of labour resources, time constraints, and risk. Jones (2001) suggests internationalization commences with low-risk, low-involvement activities (e.g. indirect exporting) and evolves to increasing risk, cost, commitment, etc. Finally, an integrated literature review suggests the **nature of internationalization** is different from traditional theory. It is integrative by nature (Coviello and McAuley, 1999), part of a growth and

development process (Jones 1999, 2001), and that firms may leverage networks and cross-border contacts (Agndal and Chetty, 2007).

Thus, forming the context of this thesis is a diverse theoretical body. Within this context, the primary focus of this research is one particular type of internationalization – export. This is the focus of the next section.

### 2.1.2 Export

Young (1989) describes export as the transfer of goods or services across national boundaries using indirect or direct methods. Indirect exporting uses intermediaries in the home country to facilitate export whereas direct exporting requires the producer to deal with agents, distributors, wholesalers and/or customers in the foreign market (Root, 1994). Extensive work investigating the various research themes of export has been completed over forty years. Tookey (1964), Bilkey and Tesar (1977), Bilkey (1978), Cavusgil, Bilkey and Tesar (1979), Reid (1981), Cooper and Kleinschmidt (1985), Rosson and Reid (1987), Madsen (1987), Miesenbock (1988), Cavusgil and Naor (1988), Rosson (1988) and Aaby and Slater (1989) provided the foundation of export research. Firm size, the role of management and strategy dominate these reviews, featuring topics like export initiation, market selection and entry, barriers, development and performance. These topics are summarized in Table 1 Overview of Export Research by key topic, author and conclusions:

Table 1  
*Overview of Export Research*

Key Export Topics	Key Authors	Key Conclusions
Firm Size	Majocchi, Bacchiocchi and Mayrhofer (2005), Mittelstaedt, Harben and Ward (2003), Westhead, Wright and Ucbasaran	The literature presents mixed results about the impact of firm size and export performance. On the one hand findings suggest larger firms are more successful at exporting

	(2001), Bonaccorsi (1992), Aaby and Slater (1989), Miesenbock (1988), Bilkey (1978), Tookey (1964)	because they have more resources. On the other hand small firms have been found to be quite successful exporters. Firm size is used as an approximation of firm resources. Number of employees most often used variable followed by sales
Export Initiation	Orser, Spense, Riding and Carrington (2008), Orser, Spense and Carrington (2007), Pope (2002), Burpitt and Rondinelli (2000), Morgan (1997), Leonidou (1995, 1998), Thomas and Araujo (1985), Bilkey (1978)	Firms pursue export based on internal and external stimuli, generally for multiple reasons rather than just one, primarily for increased sales growth opportunities and to achieve economies of scale. Management acumen is linked to Canadian export initiation.
Market Selection and Entry	Brouthers and Nakos (2005), Chen and Thomas (2002), Papadopoulos, Andersen and Buvik (2001), Koch (2001), Leonidou (1995a), Root (1994), Erramilli and D'Souza (1993), Chetty and Hamilton (1993), Papadopoulos and Denis (1988), Rosson and Reid (1987), Reid (1981)	Process can involve qualitative decision-making frameworks, quantitative grouping models which cluster similar markets, and quantitative ranking models which estimate the order of preference of markets or the optimal decision. No agreement on which indicators to use and how they might be weighted to reflect their relative importance.
Export Barriers	Arteaga-Ortiz and Fernandez-Ortiz (2010), OECD (2009), MacMillan (2008), Orser, Spense, Riding and Carrington (2008), Zhang, Sarker and Sarker (2008), Crick and Barr (2007), Kneller and Pisu (2007), Lopez (2007), Orser, Spense and Carrington (2007), Morgan, Kaleka and Katsikeas (2004), Leonidou (2004), Suarez-Ortega (2003), Mittelstaedt, Harben and Ward (2003), Fillis (2002), Westhead, Binks, Ucbasaran and Wright (2002), Bennett (1998), Morgan, (1997), Bennett	Internal and external constraints that hinder the firm's interest in and ability to commence and/or develop exports. Found at any stage of the export development process. Include those that discourage firms from pursuing exports and those that occur during exports

	(1997), Campbell (1996), Shoham and Albaum (1995), Leonidou (1995b, 1995c), Miesenbock (1988)	
The Role of the Decision-maker	Leonidou, Katsikeas and Piercy (1998), Leonidou and Katsikeas (1996), Shoham and Albaum (1995), Leonidou (1995a), Aaby and Slater (1989), Miesenbock (1988) Reid (1981)	Export stimuli lead to export initiation only if they are perceived and interpreted by the decision maker within the firm. This owner/manager is central to leading the firm past export barriers.
Performance	Wheeler, Ibeh and Dimitratos (2008), Morgan, Kaleka and Katsikeas (2004), Katsikeas, Leonidou and Morgan (2000), Leonidou (1998), Zou and Stan (1998), Chetty and Hamilton (1993), Aaby and Slater (1989), Madsen (1987), Bilkey (1978)	Internal (firm characteristics, competencies and strategies) and external factors drive performance as measured by economic and non-economic indicators. General support that the internal controllable factors are key.
Export Development	Leonidou and Katsikeas (1996), Reid (1981), Bilkey and Tesar (1977)	Authors all note firms go through stages in terms of pre-engagement, initiation and ongoing development of exports. But, the view of staged approach is challenged by the 'born global' view presented below
SME Born Global Internationalization Theory	Loane and Bell (2006), Chetty and Campbell-Hunt (2003), Etemad (2004a, 2004b), Fillis (2001), Coviello and McAuley (1999), Knight and Cavusgil (1996), McDougall and Oviatt (1996), Bell (1995), McDougall, Shane and Oviatt (1994), Oviatt and McDougall (1994)	SME Internationalization does not proceed in prescriptive stages. It proceeds when entrepreneurs identify opportunities and marshal resources to act on those opportunities.

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This review of literature will expand on three elements of the export literature

pertinent to this research; export barriers, the role of the decision-maker and export performance. The intent of this research is to investigate the role an online strategy plays in overcoming export barriers and contributing to export success, so these

elements of the literature are central to the development of an argument. The SME literature, Internet and export all note the role of the decision-maker, so the export stream of this variable will also be reviewed.

### 2.1.3 Export Barriers

While there are may be many reasons to go international, exporters face many challenges. Export barriers are those factors that “serve to dissuade a firm from exporting or which hinders its actual export activity” (Suarez-Ortega, 2003). Shoham and Albaum (1995) consider these barriers important because of the “impact on the behaviour of exporters at different stages of internationalization” (86) including making decision-making difficult and affecting export performance. A variety of factors contribute to a firm’s ability to commence and/or develop exports (Leonidou, 2004, Westhead, Binks, Ucbasaran and Wright, 2002). Based on his review of 19 studies Miesenbock (1988) summarizes the reasons for non-exporting as internal and external. Leonidou (2004) extends this work in his review of 32 empirical pieces and expands the internal classification to include functional, informational, and marketing factors and the external classification to include procedural, governmental, task, and environmental factors. Not only can the nature of the barriers vary, the impact of those barriers can vary as well. Of the obstacles researched for SMEs, Leonidou (2004) cites several marketing activities as having a very high impact, including five of the top eight:

- 1st. Limited information to locate/analyze markets
- 2nd. Inability to contact overseas customers
- 3rd. Identifying foreign business opportunities
- 4th. Difficulty in matching competitors’ prices
- 6th. Different foreign customer habits / attitudes

Another 31 barriers have high, moderate, low and very low impact (286), including finding foreign representation, pricing, after-sales service, promotion, communication

and language. These are listed in full in Appendix 1 Summary of Export Barriers. In 2009 the OECD assessed the marketing, finance and operations barriers perceived by SMEs using a ranked weighting approach and found comparable ‘top ten’ challenges including identifying opportunities, limited information, contacting customers, and finding foreign representation. The authors of the OECD study suggest the barriers “point to the continuing criticality of barriers such as limited firm resources, managers’ misperceptions and lack of international market-related knowledge” (4). In other words, these barriers are largely internal in nature influenced by internal action. Evidence of similar marketing challenges is presented by Kneller and Pisu (2007). Thus, the most prominent export marketing barriers featured in the literature and the ones best suited for study with regards to the impact of the Internet are:

- Market research including gathering information to locate/analyze markets, identify foreign business opportunities and understanding foreign customer habits/attitudes
- Finding foreign representation
- Communication and promotion with customers (inclusive of language)

Leonidou (2004) notes “obstacles also can be found at any stage of the export-development process, but their nature may differ markedly from stage to stage” (281). Further to this, Morgan (1997) suggests there are those barriers which discourage firms from pursuing exports and those that occur during exports. And, while export barriers make business more challenging, Morgan (1997) argues the “decision makers appear to differ in their perception of the importance and difficulty of tackling these export barriers” (8). For the SME, this is particularly relevant given the distinct role played by the owner/manager (Shoham and Albaum, 1995, Suarez-Ortega, 2003).

Morgan (1997) thinks that non-exporters which are interested in exporting will perceive barriers to opportunities to be less significant than firms not interested in

exporting. This perception may vary across industry, nation and firm size (Leonidou, 1995b). There seems to be consensus among researchers that multiple stimuli lead interested management to take on the barriers of exporting to achieve corporate goals (Leonidou, 1995b, Morgan, 1997, Leonidou, 2004), thus linking this stream of the research to the export initiation research.

Leonidou (2004) observes that while dozens of studies have addressed the export barriers topic, the body of research is fragmented and incomplete. Arteaga-Ortiz and Fernandez-Ortiz (2010) suggest there is a “lack of consensus on the number of underlying factors and the content of each factor”, no “uniform criterion” for the types of barriers and no common scale for export barriers (398). Crick and Barr (2007) write that no “single theory exists to...explain how they overcome certain barriers” (234).

One topic that is under-developed in the export barrier research is the role of the Internet. Balabanis, Theodosiou and Katsikeas (2004) raise concerns about this lack of attention and the “serious constraints to the effective exploitation of these opportunities” (362). Tiessen (2003), Morgan-Thomas and Bridgewater (2004), Saban and Rau (2005), Moini and Tesar (2005), Mostafa, Wheeler and Jones (2006) and Lohrke, McClure Franklin and Frownfelter-Lohrke (2006) have completed empirical work about the role of the Internet and export in general, but only Bennett (1997 and 1998), Fillis (2002), and Vivekanandan and Rajendran’s (2006) address export barriers in particular. These studies will be reviewed in Section 2.3. One factor which may influence the perception of barriers and the utility of the Internet is the key owner/manager decision-maker. This is the subject of the next section.

#### 2.1.4 Export and the Decision-Maker

To capitalize on opportunities, management must recognize opportunities and decide to act. Leonidou and Katsikeas (1996) suggest that export opportunities are “important only to the extent that they are brought to the attention of the key decision maker” (11). In his seminal piece about the role of management, Reid (1981) compares the decision-making act to the process of innovation. He argues that stimuli lead to export initiation only if they are perceived and interpreted by the decision maker within the firm. Miesenbock (1988) goes even further, stating the “key variable in small business internationalisation is the decision-maker” (42). Reid (1981), Miesenbock (1988) and Aaby and Slater (1989) all note the importance of the attitude and activity of management towards export. Based on their review of 33 studies Aaby and Slater (1989) suggest management perceptions “appears to be one of the most important firm determinants for export success” (17). They further link management commitment to export performance. Based on his review, Leonidou (1995a) observes of non-exporters that despite;

the perceived influence of these stimuli, these firms remain inactive with regard to exporting. This confirms previous research in the field that the stimulus is not in itself sufficient to push the firm along the internationalization path, but also has to be supported by other facilitating forces associated with the environment, the organization and the decision maker” (31).

Reid (1981) purports “the existence of decision-maker characteristics at the level of the firm which can mediate the impact of the environmental and firm contextual characteristics in export decision making” (104). Management must be alert to these opportunities and threats to maximize the firm’s export experience and performance. Shoham and Albaum (1995) conclude that firms that take a proactive approach to export planning and pursue market-driven opportunities experienced less perceived export barriers. Thus, not only is the owner/manager of an SME the key variable



regarding the perception of barriers, s/he is the key variable in overcoming those barriers and achieving export success. This is therefore one of several factors influencing export performance, the topic of the next section.

#### 2.1.5 Export Performance

Export performance has received considerable attention in the literature, stretching over several decades. Aaby and Slater (1989), later supported by Chetty and Hamilton's (1993), conceive export success as influenced by a combination of factors pertaining to the firm and its strategy. These are listed in brief below:

- Firm characteristics, including size, managerial commitment and management perceptions
- Competencies, including technology intensiveness, planning, management, quality and communication
- Strategy, including market selection and the marketing mix

Similarly, Katsikeas et al (2000) view performance as the outcome of background variables (environmental, organizational and managerial factors) and intervening variables (targeting and marketing strategy factors). Zou and Stan (1998) categorize the various determinants of export performance in terms of internal / external and controllable / uncontrollable. According to the authors, "the single most important set of determinants of export performance falls in the cell of internal-controllable factors...most researchers hold the view that export performance is under the control of the firm and its management" (7). Bilkey (1978) suggests "quality of management probably is the greatest single determinant of a firm's export success" (43), a conclusion shared by Aaby and Slater's (1989) review of 55 studies and Madsen's (1987) review of 17 studies. Thus, activities like export planning (information gathering, analysis), organization (resource commitment), strategy (market concentration/spreading, marketing mix standardization/customization) and management attitudes and perceptions (commitment, international orientation,

perceived export advantages) strongly influence export performance (Zou and Stan, 1998). Leonidou (1998) reviewed 46 studies about management's influence on exporting and found four general groups of managerial factors (general objective, specific objective, general subjective and specific subjective) affect the four export dimensions (export propensity, aggressiveness, development and performance). Thus, a significant portion of the performance research focuses on the drivers of performance. Wheeler, Ibeh and Dimitratos (2008) offer a comprehensive summary of aggregate findings on the determinants of export performance. The authors find an "enlarged base of complementary theoretical perspectives may offer richer insights into firm-level export performance" (229) which supports the broad theoretical development of this thesis. Their model draws on 33 empirical studies to blend "the better aspects of previous relevant models" (228). However, the Internet is notably absent in their model. While the authors note "firm's technology" as a component of the firm's characteristics and "technological intensity" in the industry characteristics, these are vague references that understate the impact and opportunity of leveraging the web for export marketing strategies and export performance.

In terms of performance measurement, Madsen (1987) reviewed seventeen empirical studies and found export profitability, sales and growth were the most common dependent variables. Aaby and Slater (1989) argue that approaches to measuring performance typically separate exporters from non-exporters and/or measure a firm's position on some dimension of export performance. The primary purpose of exporter/non-exporter measures is to develop a profile of the characteristics that differentiate the categories (16). Katsikeas et al (2000), from their review of 93 export performance studies, propose two general means for measuring export

performance – economic and non-economic. Economic measures include items such as export sales (e.g. volume, ratio to overall sales, growth, transaction size, etc), profitability (e.g. export profitability, growth, percentage of total profitability, etc) and market share. Non-economic measures include product gauges (e.g. development of new products for export), market considerations (e.g. nature of markets exported to), and other general considerations like years exporting, contribution to scale economies, perceived success and attainment of objectives. The authors argue “the choice of export performance measurement approach depends on contextual factors” (505) and encourage multiple and diverse measurement of performance.

Throughout these studies, several authors comment on the role of technology with regard to export. One specific area of interest is the use of the Internet.

## **2.2 Internet**

### **2.2.1 Introduction to the Internet**

“The Internet has changed everything” (Moini and Tesar, 2005, 80). The impact of the Internet on markets is apparent. Tiessen et al (2001) suggest this is consistent with Schumpeter’s (1934) work about innovation and ‘creative destruction’ which suggests how new combinations of technologies and markets disrupts equilibrium and contributes to growth. In general, Internet markets are characterized by greater information richness of the transactional and relational environment (Varadarajan and Yadav, 2002). This enables easier and better access to information about markets and customers, easier and better completion of purchases and sales, and easier and better communication and relationship building and leveraging. Both the effectiveness of the Internet as a market and the effective use of the Internet as a business strategy

relates in large part to levels of connectivity (Hamill, 1997) and interactivity (Varadarajan and Yadav, 2002). This part of the literature review will address two areas pertaining to Internet strategy; websites and Web 2.0.

### 2.2.2 Websites

One extensive area of the Internet literature is the nature of the firm's website. Effective websites affect many aspects of a firm's operations. Kim, Shaw and Schneider (2003) cite Forrester Research that studies the costs of poorly designed or managed Web sites. "The results of their research indicate that when consumers cannot find an item on a Web site, approximately 50 per cent will leave. If customers have a negative experience on the first visit, 40 per cent will not come back" (18). Elsammani, Hackney and Scown (2004) argue that "in a competitive environment, where many or most e-commerce sites have design or maintenance flaws, there is a competitive advantage by owning a quality site" (147). Thus, websites should be an important component of a firm's export offering, and, developing and implementing effective websites a critical challenge for exporting firms.

Trade publications about designing effective websites abound. IBM (2000) and Jakob Nielsen (Nielsen, 2006) provide notable examples. But Tamimi, Rajan and Sebastianelli (2003) ask a central questions to this point; "what makes some websites more effective than others?" (35). Evaluation is an inherent element of website management. As Simeon (1999) notes, "more systematic approaches to web site assessment are necessary" (298). Kim et al (2003) suggest that there "does not seem to be a consensus among researchers regarding the appropriate criteria for a web site evaluation" (20). For exporters, who must develop an effective website for foreign customers, special attention to evaluation criteria seems particularly relevant.

There are various models for conceiving and evaluating commercial websites. Cheung and Lee (2004/2005) suggest user satisfaction is at the heart of effective websites. The effectiveness of a user's experience is dependent on design, business processes, policies, customer service and overall execution. Comparable thinking can be found in the work of Lee, Katerattanakul and Hong (2005), who use the concept of 'fitness for use' regarding consumer satisfaction. Hassan and Li (2005) explore the concept of 'usability' in which "user interface and content together determine users' level of satisfaction" (49). Simeon (1999) presents the AIPD model (attracting, informing, positioning and delivery) to examine a website's influence on profitability and virtual branding. Several authors incorporate the consumer perspective as the basis for evaluating websites (Cox and Dale, 2002, Tamimi et al, 2003).

In the same way that conceptualizing effective websites varies, approaches to evaluation vary as well. Most models create a framework of criteria, but the approach to using the criteria varies. Sinha, Hearst, Ivory and Draisin (2001) cite an evaluation process in which multiple judges select 'winning' sites based on various categories of criteria. Kim et al (2003) argue that "web design benchmarking is a timely, useful, and relevant exercise for both practical and academic purposes" (18). Their criteria, featured in Appendix 2 Literature-based Website Evaluation Criteria, emerge from a review of literature spanning five years and twenty-two studies. The most common method appears to be a rating system, whereby a site is evaluated on a numeric scale. van der Merwe and Bekker (2003) write that a value indicates "how well the Web site adheres to the specific criterion" (334). The authors contribute an integrated framework for website evaluations based on five groups of variables; interface,

navigation, content, reliability and technical. Their model is based on non-empirical analysis, but offers considerable integration of relevant variables. Please refer to Appendix 3 Website Evaluation Framework for the organization framework of major factors and Appendix 4 Website Evaluation Criteria for specific factors. The overall website effectiveness is the sum of the various criteria ratings. Sinkovics and Penz (2006) describe evaluations focused on “machine-centric evaluations, expert judges and consumer judges” (313). Loane (2004) found not all web pages of her investigated firms were publically available, prompting her to suggest that “extant web content analysis research may present an incomplete analysis of the firm’s web functionality” (275). Evaluation methods call in to question the ability of the researcher, manager or general critic to evaluate a site in an effective manner and from what perspective (e.g. customer) the site is being evaluated.

Some work has been completed regarding website internationalization. Karayani and Baltas (2003) completed an interesting multiple-method study by surveying firms and then evaluating their websites and linking the evaluations to company performance. The authors found interactive organizational response, marketing communications and customer information collection to link statistically to performance. Singh, Toy and Wright (2009) summarize the literature pertaining to website localization (e.g. language, layout, symbols, aesthetics, navigation structure) and completed what appears to be a unique empirical study involving website localization. The authors identified 208 Spanish-language websites provided by U.S. companies for Hispanic online users. Each website was analyzed using fourteen variables and the results evaluated using factor and analysis of variance methods. This study follows the general approach of Tiessen (2003) who completed a one-year experiment

internationalizing the Japan-targeted websites of 10 Canadian SMEs. This will be considered later in the review.

The purpose of a website is a regular theme of research. Sinkovics and Penz (2006) completed empirical work among 306 Austrians web-users focused on ‘empowerment’ regarding SME firms’ websites. The preliminary study suggests relationship-building and transaction-orientation were key areas of concern for respondents. Auger (2005) investigated interactivity and design sophistication among U.S. small firms and found interactivity positively associated with performance while design sophistication to have relatively small impact. Neither of these studies, however, consider the small firm dynamic or management challenges. Auger’s (2005) study included firms with up to 1000 employees. Thus, while these studies focus on the target firms to a degree, they do not address the central questions of this thesis.

What is absent is a comprehensive theory about Internet strategy for SME internationalization via export. Websites and their evaluation are just part of a firm’s overall Internet strategy. The ability to leverage the Internet for competitive advantage represents a major potential strategic thrust for SMEs. This is particularly so given developments in Web 2.0 highlighted next.

### 2.2.3 Web 2.0

As noted in Chapter One, Web 2.0 is an emerging Internet-based community of consumers, employees, suppliers, partners and others who share in what some call ‘mass collaboration’ (Tapscott and Williams, 2006). In his seminal article “What is

Web 2.0: Design Patterns and Business Models for the Next Generation of Software”, O’Reilly (2007) describes this community as a “veritable solar system of sites” (19) with the power to “harness collective intelligence” (22). Supported by platforms including blogs, wikis, chat rooms, peer-to-peer business and social networks, and personal broadcasting forums, participants exchange experiences, post thoughts about products, network and create knowledge which can be leveraged to support market research, the marketing mix and customer service. Web 2.0 communities use mature technologies for peer-to-peer community building and supporting interaction. Arguably, these communities are a “philosophy” more than a collection of technology used by people (Hoegg, Martignoni, Meckel, and Stanoevska-Slabeva, date unknown). Within this view, members of online communities create value in the traditional supply chain as active contributors.

The theory of social networking site (SNS) research (e.g. Boyd and Ellison, 2008, Kolbitsch and Maurer, 2006) and business networking sites (BNS) is emerging. Preliminary theoretical development has focused on SNSs as communities of practice, knowledge creation and sharing (Toral, Martinez-Torres, Barrero and Cortes, 2009). Some theory development has focused on the participant’s perspective and an analysis of motivation and interaction (Shang, Chen and Liao, 2006). More practical development exists regarding managing successful online communities (Kaplan and Haenlein, 2010, Kim, Jeong and Lee, 2010). As noted earlier, Granovetter’s embedded perspective and social network theory emphasize the role of the founder, owner and/or key decision maker and predict the small firm’s interaction as “embedded within fluctuating networks of social relationships” (Shaw, 2006, 6). It is a manager’s relations and contacts that yield potential value for the network (Burt,



1992, BarNir and Smith, 2003). As the size of the network, the strength of relationships, the quality and diversity of the contacts increases (Aldrich and Martinez, 2001), the greater value the network provides. Enders, Hungenberg, Denker and Mauch (2008) conclude SNSs make “a larger contact pool available to their members and allow them to easily manage and maintain virtually unlimited numbers of contacts” (209). Arguably then, for small firms with resource challenges, SNSs provide optimal connections within the bounds of resource constraints. Thus, the more a small firm can embed itself in a growing SNS or BNS the more potential value it can obtain.

Several examples of business application appear relevant. Kim, Jeong and Lee (2010) describe standard SNS activities including establishing connections, communication, and finding information. For small exporters, these are all key marketing challenges. Through the use of social collaborative technologies, SNS provide an “Eden for free minds and ideas to trigger sparks of inspiration” (Fu, Liu and Wang, 2008, 675). Utilizing such diverse creativity can help firms develop novel promotion campaigns and product ideas. In their study of community based innovation (CBI), Fuller, Bartl, Ernst and Muhlbacher, (2006) studied the used of online consumer groups’ contribution to idea generation, design and testing. Based on findings from 1328 participants, Fuller et al (2006) conclude such communities represent a resource for innovation. Writing in support of open innovation, Chu and Chan (2009) regard online networks as a source of ideas, co-creation and consumption. Applied to other areas of export marketing, it seems reasonable that small firms might use online communities to address market research, promotion and local customization challenges. According to Tapscott and Williams (2006), firms wanting to leverage

this peer resource need to be open, share with their communities, take a global perspective and utilize advanced technology. Both O'Reilly (2007) and Tapscott and Williams (2006) note small firms can benefit from Web 2.0.

The review of Internet literature suggests a tremendous technological opportunity for firms that employ an Internet strategy. Key export barriers such as market research, communication, interacting with foreign representation, general sales and marketing and other business activities may be facilitated in efficient, effective means. Internet searching, managing websites, and using online business networks for diverse export purposes appears to show great potential. Small firms in particular may benefit from Web 2.0 for foreign markets. However, SMEs have distinct characteristics and dynamics which require consideration. The next section considers the small business context of export internationalization and Internet use.

#### 2.2.4 SMEs, Internet Adoption and Barriers

Even at an early stage of development Aaby and Slater (1989) and Chetty and Hamilton (1993) both found technology in general contributes to export performance, yet little research has been conducted subsequently to make the connection with the Internet. Especially considering Leonidou's (2004) concerns regarding the poor state of export barrier research, it would appear work done in this area regarding the role of the Internet would be a welcome addition. Early work by Hamill (1997), Samiee (1998), Bennett (1997), Poon and Swatman (1997) among others provided preliminary directions for Internet adoption. Balabanis et al (2004) raise concerns about the lack of attention given to the role of the Internet re: export barriers and the "serious constraints to the effective exploitation of these opportunities" (362). In their overview the authors argue that:

While significant attention has been devoted to the opportunities provided by the Internet for revenue generation, cost reduction, market penetration and development, efficient communications, customer service improvement and marketing intelligence, less emphasis has been placed on the factors that can impose serious constraints to the effective exploitation of these opportunities. (362).

Work by Chrysostome and Rosson (2004), Saulnier and Rosson (2004), and Loane and Bell (2002) suggests the pace of internationalization should increase with the advent of the Internet. In part this is due to speed of gathering information about markets and communicating with potential/customers supports speedier capitalization of opportunities. Hornby, Goulding and Poon (2002) argue that exporting SMEs should have a “higher propensity for Internet uptake” because of their generally innovative nature (214). Adoption of the Internet, its use, and the barriers to both appear to be key areas of research.

Research about SMEs adopting an Internet strategy is an area that has grown in recent years. I.T. adoption in general may be closely linked to the diffusion and assimilation of innovation (Raymond, 2001, Bouchard, 1993, and Lee, 1998), while innovation is linked to characteristics of the environment, organization, organization’s leader and the technology itself. Beck, Wigard and Konig (2005) and Levy, Powell and Worrall (2005) find that SMEs adopt the Internet primarily for market reasons – because their customers demand it. Daniel and Grimshaw (2002) report several findings about customer-driven reasons for Internet adoptions; customer service, communication, market access, and access to new customers are key adoption factors. Levy et al (2005) state that “Internet adoption is faster when SMEs recognize a business need” (3). In other words, some element of delivering a product or service to customers is improved by the adoption of technology.

Supply chain interaction with upstream and downstream players influences adoption. Adoption may imitate the actions of others or result from the coercive influence by firm(s) upon which the small firm depends (Tiessen et al, 2001). Qualye and Christiansen (2004) and Lertwongsatein, Wongpinunwatana and Achakulwisut (2004) note environmental pressures such as competition and the coercive power of partners as significant factors of e-commerce success. It follows then that the firm's market and its various partners influence to some degree the firm's decision to adopt I.T.

I.T. adoption also appears to be linked to strategy. Moini and Tesar (2005) connect traditional entrepreneurship/small business theory to SME-Internet use. Extant theory predicts small firms use personalized relationships, customized offerings and niche markets to compete with large firms. The authors cite multiple sources as they write that "smaller businesses can level the playing field against larger competitors through strategic use of the Internet's communication, research and segmentation capabilities" (83). Collectively, this suggests a key linkage of attitude and strategy regarding the thesis of this research.

Daniel and Grimshaw (2002) and Levy et al (2005) connect the decision of SMEs to adopt the Internet with the SMEs perception of benefits. The primary benefits arise from efficiency, effectiveness and currency. Better, cheaper, faster communication with stakeholders, ability to access competitive and customer information, integration of business functions, another channel for finding and serving customers, arguably at a lower cost. Beck et al (2005) find sales, customer service, coordination with suppliers, internal processes, and competitive positions among the most commonly

reported benefits. Raymond (2001) and Daniel and Grimshaw (2002) note that common to all of these perceived benefits is the ability to recognize these benefits and perceive the value in them. This suggests the role of the SME decision-maker is key.

Hornby et al (2002) argue exporting SMEs should have a “higher propensity for Internet uptake” because of their generally innovative nature (214). Yet, the barriers to this usage by SMEs is another research thrust. Some of the challenges relate to the organization, touching on resource issues or the role of the entrepreneur and/or management. Thong (1999) notes SMEs face different technological, managerial, and organizational challenges than larger firms. Resource issues include lack of expertise, time and costs (Tiessen et al, 2001, Locke and Cave, 2002, Elsammani et al, 2004). For example, in terms of expertise, many firms struggle with website planning, development and marketing (Golden, Hughes and Ruane, 2004). Hornby et al (2002) note the “SMEs have traditionally faced a number of barriers to adoption of electronic commerce” (214) such as:

- Lack of cost effective e-commerce enabled software
- General lack of resources
- Complications in implementing change
- Lack of technical skills and training
- Computer apprehension
- Ongoing support costs
- Inter-organizational motivation
- Giving priority to e-commerce initiatives

The role of the decision-maker and/or management team is another relevant factor for E-commerce implementation. Thong (1999), Poon and Swatman (1997), Tiessen et al (2001), Al-Qirim (2006) and Golden et al (2004) find management commitment is key to adoption and use, noting in many cases that the success of SME implementation was dependent on a champion. Levy et al (2005) write that “organizational readiness is personified in the SME owner” and that SMEs that

embrace the Internet are “more entrepreneurial, risk takers, innovative and, invariably, creative” (4). Elsammani et al (2004) note that existing research “so far has yet to pay attention to the processes of EC implementation” (148). Fillis, Johansson and Wagner (2003) propose that essential competencies to Internet adoption include knowledge, vision, implementation and technological awareness – in short, those firms with higher degrees of entrepreneurial orientation.

Confounding this implementation are the concerns SME decision-makers have about the benefits they will achieve coupled with the costs they will incur. The costs relate to financial outlay, time commitment and/or learning curve. Moini and Tesar (2005) found that SME owner/managers think technology adoption leads to a “never-ending process” of expenses, a concern that makes them feel they cannot afford advanced technologies (83). The decision-maker, therefore, struggles with the traditional cost/benefit balancing act, influenced by the unique SME dynamics of a ‘champion’s’ attitude which may tip the scale of perception further in favour or opposition regarding Internet adoption and implementation.

Interestingly, though, Hornby et al (2002) found that using the Internet served to overcome the perception of export barriers among a group of Australian SMEs, lending support to the utility of technology for addressing barriers noted earlier in this paper.

There is some evidence to suggest SMEs were quicker to take up the Internet than larger firms, in part, to address resource differences (Daniel and Grimshaw, 2002). Moen, Madsen and Aspelund (2008) hypothesize that information and communication

technology (ICT) influences performance, conceptualized as performance in international markets and new market knowledge. Based on structural equation modeling of 635 Norwegian SMEs survey responses, they found ICT was significantly and directly connected to developing new market knowledge but only indirectly linked to performance in international markets. Notably, their study is one of the few to link some kind of Internet activity to export performance.

The thesis has to this point reviewed separate streams of research as part of the justification for this research initiative. There are, however, a number of studies completed which have addressed the export internationalization of SMEs given the role of the Internet. These studies represent the core of the literature for this research and are featured in the next section.

### **2.3 Integrated Literature Review: Export, SMEs and the Internet**

Central to this research are those studies investigating SME use of the Internet to overcome export barriers and achieve export success. Eighteen studies have been completed which address these aims. These studies represent the core of the literature for this thesis, spanning broad and narrow foci, and quantitative and qualitative methods. Fifteen studies used one methodology and only one completed website evaluations. Table 4 in Chapter Three summarizes these studies; the key themes are developed below.

Early research was completed by Bennett (1997 and 1998). He surveyed British and German SME exporters and linked the use of the Internet to overcoming export

barriers. The respondents in his research were particularly conscious of external barriers, and found web use generally helpful. Bennett's work offers the first empirical investigation into this research topic but at a time when the Internet was in its infancy.

Tiessen, Wright and Turner (2001) developed twelve case studies about Canadian SMEs engaged in e-commerce and explored management commitment, the function and content of web pages, and the degree of adaptation to foreign markets. Emerging from this qualitative work was a three-factor model involving environmental factors, firm factors and international web use. This model is significant in that it is the only model developed among the core articles, though it omits several literature review variables and themes from its construction. Tiessen (2003) conducted further research with a web localization experiment involving ten Canadian SMEs. Using three variables – a translated website, submitting sites to Japanese search engines, and enabling Japanese email – he assessed the interest generated by site visitors and surveyed the firms' owners. While the findings were mixed, the focus and methodology were germane in that he examined the performance impact of Internet strategy using website evaluation as a key variable. Saulnier and Rosson (2004) also used multiple methods to assess the e-readiness of 13 Canadian SMEs. In addition to interviewing, the authors completed a multi-dimensional evaluation of the firms' websites. It appears these three, coupled with Rosson's (2004) research, form the focus of Canadian SME export research involving the Internet. The research is qualitative and exploratory, with little in the way of explicit website evaluation and only minimal explicit measurement of the relationship of export, export barriers, the Internet and performance.



There is non-Canadian research that is worth considering as well. Morgan-Thomas and Bridgewater (2004) examine the Internet and export and found a direct sales force contributes towards successful virtual export channels. The authors write that “it matters less what function the Internet serves...than how well it fulfills its role” (402). Lohrke, McClure Franklin, and Frownfelter-Lohrke (2006) surveyed 43 SMEs in a study about the Internet and transaction cost analysis regarding distribution channel partners. In this small sample the authors found SMEs frustrated by the inadequate support provided by intermediaries for customers were associated with higher levels of Internet contact with those customers. Saban and Rau (2005) also surveyed a group of U.S. SMEs (n=105) to investigate their use of websites as export marketing channels. They found the websites were the most highly rated channel, that the sites were used to publish product information, and that resource constraints were the biggest issue. However, the findings appear to be based on minimal data collection and analysis. These studies offer glimpses into specific aspects of understanding channel dynamics, and move some SME export Internet research towards larger scale empirical work. However, this research does little to expand the general understanding of theory or practice of regarding the links between export strategy, Internet strategy and performance.

Moini and Tesar (2005) note that while this area of literature is growing, with empirical, cases studies and observations, gaps exist regarding the SME-particular factors that influence the use of the Internet during internationalization. Their study of Wisconsin manufacturers compares exporters and non-exporters use of websites. One element of their research is an evaluation of how website effectiveness influences

export success. Further, Moini and Tesar (2005) connect the use of websites for exporting with SME financial resources and cost issues. These two elements appear to be unique to their study. Building on other research, they also link management perception and commitment, which they find to be “the most significant internal stimulus to deployment of an internet website” (87) to support exports. Mostafa, Wheeler and Jones (2006) generally agree, noting the entrepreneurial orientation of SMEs are more committed to the Internet and have better export performance than firms with lower entrepreneurial orientation. Their work involving 158 U.K. SMEs utilized a multi-dimensional approach to Internet use as well. Both papers appear to offer a valuable extension to the Canadian-focused research, but also demonstrate in terms of theoretical scope some directions for model building regarding export, the Internet and performance.

Directions for theory building are also evident as a result of Vivekanandan and Rajendran’s (2006) research. They investigated the impact of “web presence of the perception of export barriers” (27) in conjunction with SME growth theory. The authors find SMEs with websites do not perceive export barrier differently than SMEs without websites, regardless of stage of growth. The authors focus their research on external, environmental barriers like international market prices, foreign competition, foreign import restrictions and so on over which a firm’s website can have little to no impact. While little information was provided for how the websites are evaluated, the research does offer an interesting premise for encompassing internal and external barriers.

Lastly, Mostafa, Wheeler and Jones (2006) demonstrate a direct link between entrepreneurial orientation, commitment to the Internet and export performance. Based on a survey of 158 UK SME exporters, the researchers collected self-reporting measures about orientations to innovation and proactivity, Internet commitment and use, perceptions of value, and the link to export performance.

Etemad, Wilkinson and Dana (2010) link the information and infrastructure of the Internet with the firm's commitment to and involvement in international markets. While the concept of 'internetization' was developed by Dana, Etemad and Wilkinson (2002) and Abouzeedan and Busler (2007), Etemad, Wilkinson and Dana (2010) develop several theoretical positions linking internetization to entrepreneurship, network theory and the greater body of internationalization. This work provides the basis for offering the single greatest criticism of INV and networking theory and the general failure to link them with the Internet. The authors suggest that neither theory "sufficiently emphasize the impact of the unfolding information revolution" (324). Yet, even this work only begins to consider the theoretical implications of internationalization, entrepreneurship and the Internet.

Emerging from the review of these core articles are directions for expanding the model development and theory building of Tiessen et al (2001). Particularly given the inconsistent treatment of the Internet regarding export barriers and strategy, nor a comprehensive study of these relative to performance, there exist gaps in the research that would be well-served by a comprehensive investigation. Further to this point, the next section will extend the research with the formation of an integrated conceptual model of SME exporters' use of the Internet.

## **2.4 Integrated Model**

### **2.4.1 Theory Integration**

Etemad, Wilkinson and Dana (2010) argue that “relatively little is known about the adoption and use of the internet by internationalizing SMEs, and although theorizing abounds, little empirical evidence is to be found” (322). Etemad and Wright (1999) suggest “no single, established model adequately explains the success of these small firms. Rather, their behaviour must be regarded as a holistic process in which insights are drawn from a variety of theoretical models, including the stage models, FDI theories, and network theories” (Etemad and Wright, 1999, 5). Further to this, Chrysostome and Rosson (2004) write a “new theory of firm internationalization that considers the realities of the Internet and the characteristics of SMEs is needed. Further research is also needed to better understand the impact of the Internet on internationalizing SMEs” (8). One consistent finding among authors is the call for integration. Coviello and McAuley (1999), Crick and Jones (2000), Jones (1999 and 2001), Jones and Coviello (2005) and Tiessen et al (2001) find that research about small firm internationalization via the Internet requires an integrated framework. Crick and Jones (2000) note “a more integrated approach to internationalization has recently been reported in the literature. Consequently, the internationalization of small firms encompasses several dimensions, including the firm’s stimuli for engaging in overseas markets, attitudes toward international competitiveness based on internal and external constraining issues, and the process or development in international markets resulting from such factors” (p.193). Jones and Coviello (2005) review the development of model from the separate entrepreneurship and internationalization streams and develop over several stages a general model of the entrepreneurial internationalization process.

A final criticism of internationalization theory as it pertains to small business relates to the nature of theory itself. Integrated theoretical application appears more relevant to small firms. Coviello and McAuley (1999) reviewed 16 empirical studies and found all three theoretical frameworks utilized in small business research, stages most frequently. The authors cite Bodur and Madsen (1993), Coviello and Munro (1997) and Fontes and Coombs (1997) studies which support an integrated approach to studying small firm internationalization, and, this idea forms the basis of Etemad's (2004a) special issue introductory article, as well as the work of Jones (1999), Andersson (2000), Andersson and Wictor (2003), Loane et al (2004) and Crick and Jones (1999). As an extension of using integrated theory, Bell, Crick and Young (1998) presents a holistic view of the firm in which resources and firm capabilities influence the firm's internationalization. Jones (1999) argues that internationalization is "part of and inseparable from the overall growth and development process of small firms" (15) and indeed, given the variety of motivators and influencing factors (firm, market, broader environment), "internationalization processes may be unique to individual firms" (18). These factors are clearly present in the general model of entrepreneurial internationalization developed by Jones and Coviello (2005). Loane et al (2004) note that internationalization is "affected by multiple influences" (81) and suggests integrated theory predicts and explains SME success best via potential "complementarities" (81), while Etemad (2004b) argues that international entrepreneurship is best viewed as part of a dynamic, open, complex, adaptive system.

Thus emerging from the review of literature is the need for integrated theoretical development. For this thesis, integration means capturing the three streams of export,

SME and Internet theory, in a model that explains how Internet use helps SMEs overcome export barriers and achieve export success. Owner/managers are key figures in the exporting firm, often leading the way to international markets by acting as export champions. Various strategic considerations influence the firm's success, including the export initiation, market selection and entry, and overcoming barriers. Accessing proper financing and human resources are key influences to this strategy and success. External to the firm, market players like customers, agents/distributors, and service providers contribute to the exporter's ability to access foreign markets. Further, the international market is influenced by home and host country regulations, economic and socio-cultural factors which can represent significant export barriers. Figure 3 Internal / External Context of SME Export captures SME Export themes developed in the well-established literature to date:

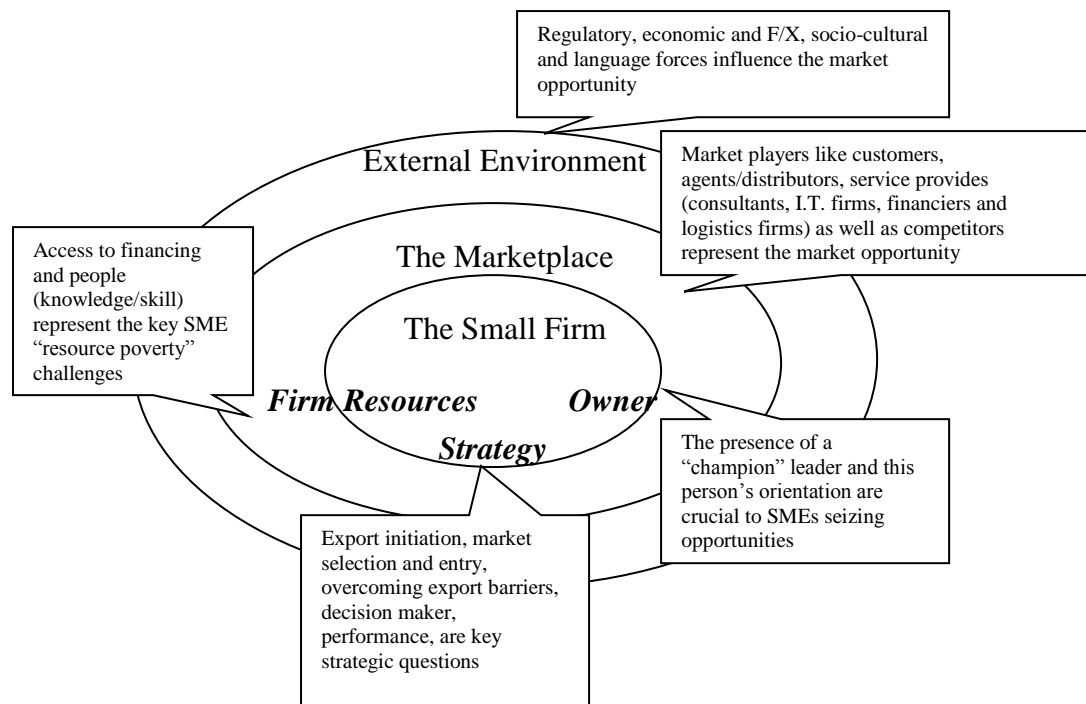


Figure 3. Internal / External Context of SME Export

The Internet research from Section 2.2 and the core research reviewed in Section 2.3 present opportunities for extending the ideas of Figure 3. The next section will provide this extension with a justification of the research model and question.

#### 2.4.2 Construction of Model

Models are “representations of reality” (Ackoff and Sasieni, 1968, 60) that make “explicit the significant relationships among those aspects” of the real world the researcher considers to be “relevant to the problem investigated” (Nachmias and Nachmias, 1996, 44). Models are simpler than reality (Ackoff and Sasieni, 1968) which makes them easier to solve while maintaining accuracy. Buffa and Dyer (1973) suggest models “reflect the subjective judgments of the decision-maker”, especially in “situations involving risk and multiple criteria” (31). Risk and multiple

criteria for decision-making are significant factors in small firm's perception of export barriers. Thus, it is argued that formulating a model to represent the relationship of these aspects is necessary. Furthermore, models can be used to inform research design. Nachmias and Nachmias (1996) suggest models help "formulate empirically testable propositions about the nature of relationships" (44).

Following the example of Wheeler et al (2008) and their study of export performance, the model will utilize internal independent factors pertaining to the decision-maker, organizational resources, and export strategy and the external environment with its opportunities and threats and how these collectively influence export performance. Building on this and the work of Tiessen et al (2001), the model will also include the intervening influence of the attitude towards and behaviour in using the Internet. Each will be described in full next; the methodological details of these variables will be provided in Chapter Three Section 3.6.2.

### 2.4.3 Independent Factors

#### *Decision-maker*

In all three streams the central role of the SME decision-maker is evident. SMEs in general are characterized by central figures who champion pursuing opportunities. Etemad (2004) describes these entrepreneurs as resource marshals who identify opportunities and take action. Ownership was a significant variable for the Canadian SME exporters featured in Orser et al (2004). Linking these two elements, it is hypothesized that ownership will be an important factor in decision-making for SME exports. Personality traits, experience, behaviour and orientation are well researched areas pertaining to entrepreneurs. Reid (1981), Miesenbock (1988), Aaby and Slater



(1989) and Leonidou and Katsikeas (1996) all note the importance of the attitude and activity of management towards export. Based on their review of 33 studies Aaby and Slater (1989) suggest management perceptions are one of the most important firm determinants for export success while Leonidou and Katsikeas (1996) suggest that export opportunities are important in so far as they the key decision maker recognizes them. McDougall et al (1994), Crick and Jones (1999) and Jones (2000) relate the SME's ability to internationalize with the key decision-maker's entrepreneurial attitude. Recognizing opportunities is also central to IT adoption and implementation. Thong (1999), Tiessen et al (2001), Locke and Cave (2002), Elsammani et al (2004) and Hornby et al (2002) link the firm's successful usage of IT with the attitude and action of the decision-maker. Fillis et al (2003) note that general factors like inertia and lack of interest impede the development of skills necessary for adoption. This is particularly noteworthy given Mostafa et al (2006) findings about the importance of commitment to Internet use among its exporter respondents. Thus, emerging from all three streams is a consistent premise that will be adopted for this research. The role of ownership regarding the decision-maker, the influence of this decision-maker's attitude regarding the use of the Internet to overcome export barriers, and the Internet actions of this decision-maker towards achieving export success are all central variables of this research model.

### *Resources*

Both SME literature and export literature utilize size measures as gauges of the firm's access to resources (Bonaccorsi, 1992, Miesenbock, 1988). Leonidou (2004) notes the challenges of overcoming export barriers and argues the firm's ability to access resources to address these barriers is a key factor in overall performance. Yet, 'born

global' research by Coviello and McAuley, (1999), Oviatt and McDougall (1994), Knight and Cavusgil (1996), and Jones (2000) suggests firms that internationalize early in their existence harness creative strategies for accessing resources. One such creative strategy is likely the use of the Internet. The use of websites (Tiessen, 2003, Saulnier and Rosson, 2004, Saban and Rau, 2005) and the Internet for information searching and communicating (Morgan-Thomas and Bridgewater, 2004, Levy et al, 2005) provide opportunities for SMEs in general. Less work has been completed regarding their role with export barriers (Moini and Tesar, 2005), though contributions by Tiessen (2003) and Vivekanandan and Rajendran (2006) are notable initial steps. Recent developments in Web 2.0 suggest online business networks may help firms overcome resource deficiencies and lever online networks (Fuller et al, 2006). But Hornby et al (2002) suggest the lack of resources – money and people in particular – is a challenge for SMEs, especially regarding the adoption and use of IT. Therefore this research will explore the role of resources and the impact of IT barriers as an impediment to utilizing the Internet to overcome export barriers.

### *Export Strategy*

While many SMEs select markets without systematic analysis the international market selection process and outcome are strategic and linked to performance (Papadopoulos et al, 2002, Chetty and Hamilton, 1993, and Brouthers and Nakos, 2005). Further to the resources issues noted above, lack of experience in conducting export research, difficulty gathering data and ineffective approaches are challenges to this aspect of export strategy (Papadopoulos et al, 2002). Market entry decisions like selection of foreign representation or implementing overseas sales force (Morgan-Thomas and Bridgewater, 2004) are also subject to concerns about resources and management

commitment. Particularly given the internal and external barriers exporters face (Leonidou, 2004), it is expected the Internet and Web 2.0 represent crucial venues for addressing these challenges and supporting market selection in general. Thus, the attitude about and usage of (i.e. behaviour) the Internet in support of export strategy may influence overall export performance. To some extent these factors have been investigated regarding export performance. But the use of the Internet as an element of the export dynamic is under-researched. It is hypothesized then that the SME owner's attitude towards and use of the Internet may influence export performance. To investigate this several intervening elements of the research model will be introduced.

#### 2.4.4 Intervening Factors

It has been argued in the previous section that the decision-maker's attitude towards opportunities in general influence the adoption and implementation of online action (i.e. behaviour). The thesis of this research is that the attitude of the decision-maker towards the Internet for export marketing will be influenced by the preceding independent factors (Section 2.4.3) and will themselves influence the adoption and use of the Internet influencing the success of the firm's export performance (Section 2.4.5). As the literature is well-developed about the influence of export and small business variables about export performance, the attitude towards and use of the Internet as an influence about export performance will be investigated. It is posited that the decision-maker, resources and export strategy will influence the attitude towards the value of the Internet regarding export marketing. This seems reasonable; the decision-maker's attitude and commitment to SME operations in general and export and I.T. in particular is often referred to as 'championing'. If the owner

believes in the activity the firm will pursue it. Thus, if the owner believes in the potential of the Internet, the firm will adopt and use it. Among the key resources identified among the I.T. barriers are money and people. It is expected that the perception of resource barriers will be closely related to Internet adoption and use. Finally, the challenges of export market selection, entry and overcoming barriers invite the use of online resources. It is expected then that as the firm perceives export challenges it will increasingly perceive the potential for the Internet to support its export strategy. Specific anticipated impacts are presented below in Table 2 Export Marketing Barriers and Impact of Internet Expectations and Table 3 External Barriers

Table 2  
*Export Marketing Barriers and Impact of Internet Expectations*

Barrier	Impact of Barrier	Anticipated Impact		
		Internet	Websites	Web 2.0
limited information to locate/analyze market	very high impact	very high impact info gathering	moderate impact info gathering	very high impact info gathering
inability to contact overseas customers	very high impact	very high impact com.	moderate impact info posting	very high impact com.
identifying foreign business opportunities	very high impact	very high impact info gathering	moderate impact info gathering	very high impact info gathering
obtaining reliable foreign representation	high impact	very high impact info gathering, com and promo	high impact com and promo	very high impact info gathering, com and promo
providing technical after sales service	moderate impact	very high impact info sharing	very high impact info sharing	very high impact info sharing
adjusting export promotional activities	moderate impact	very high impact com and promo	very high impact com and promo	very high impact com and promo
problematic communication with overseas customers	moderate impact	very high impact com	very high impact com	very high impact com

and Impact of Internet Expectations utilizing Leonidou's (2004) summary of internal and external export barriers. These tables make use of several abbreviations for the

sake of space, including: ‘info’ for information; ‘com’ for communication; and ‘promo’ for promotion.

Table 3  
*External Barriers and Impact of Internet Expectations*

Barrier	Impact of Barrier	Anticipated Impact		
		Internet	Websites	Web 2.0
foreign currency exchanges risks	high impact	very high impact info gathering	no impact	moderate impact info gathering
strict foreign rules and regulations	high impact	very high info gathering impact	no impact	moderate impact info gathering
high tariff and nontariff barriers	moderate impact	very high impact info gathering	no impact	moderate impact info gathering
unfamiliar foreign business practices	moderate impact	very high impact info gathering	no impact	moderate impact info gathering
different sociocultural traits	moderate impact	very high impact info gathering	no impact	moderate impact info gathering
verbal/nonverbal language differences	low impact	high impact info gathering and com	very high impact com	low impact com

#### 2.4.5 Export Performance

Export performance is a well-researched area of business (OECD, 2009, Wheeler et al, 2008, Katsikeas et al, 2000, Zou and Stan, 1998). Based on the reviews completed by these authors it is evident export profitability, sales and growth were the most common variables. There is no intention to differentiate between exporters and non-exporters as the purpose of this research is to differentiate between successful and unsuccessful use of the Internet among SME exporters. It is hypothesized that Internet use will influence recent, current and future export sales. One caveat; the use of Web 2.0 is in its infancy, thus it is not expected recent growth figures will be

influenced much by this new online activity. Rather, Web 2.0 will be assessed for current performance and future projections.

#### 2.4.6 Presentation of Model

The construct of the model draws from historic models of Bilkey (1978), Madsen (1987), Rosson (1988), Aaby and Slater (1989) and Katsikeas et al (2000), the export barriers constructs of Leonidou (2004), SME internationalization constructs of Etemad (2004 and 2006), and the Internet internationalization ideas of Tiessen et al (2001), Tiessen (2003) and Mostafa et al (2006), as well as the general model of entrepreneurial internationalization process of Jones and Coviello (2005). The model is presented below in *Figure 4. Qualitative Model of the Role of Internet Strategy for SME Exporters*.

The model developed in this research provides an integrated step forward for research about export and the role of an Internet strategy. The factors for exploring Internet strategy draw from multiple activities, including outward looking Internet usage, online network participation, and web presence. Central to the model are internal and external realities of the firm linked specifically to strategy and performance. This should provide insight into the complete and complex view of the Internet's role in export success. These elements are separate streams of the literature brought together in the model for the purposes of this research.

Thus, the key research questions of this thesis are:

- What export barriers do Canadian SMEs encounter?
- What role does the Internet serve in helping these SMEs overcome these barriers?

- How does an online strategy affect export performance?

To address these questions a methodology will be developed in Chapter Three next.

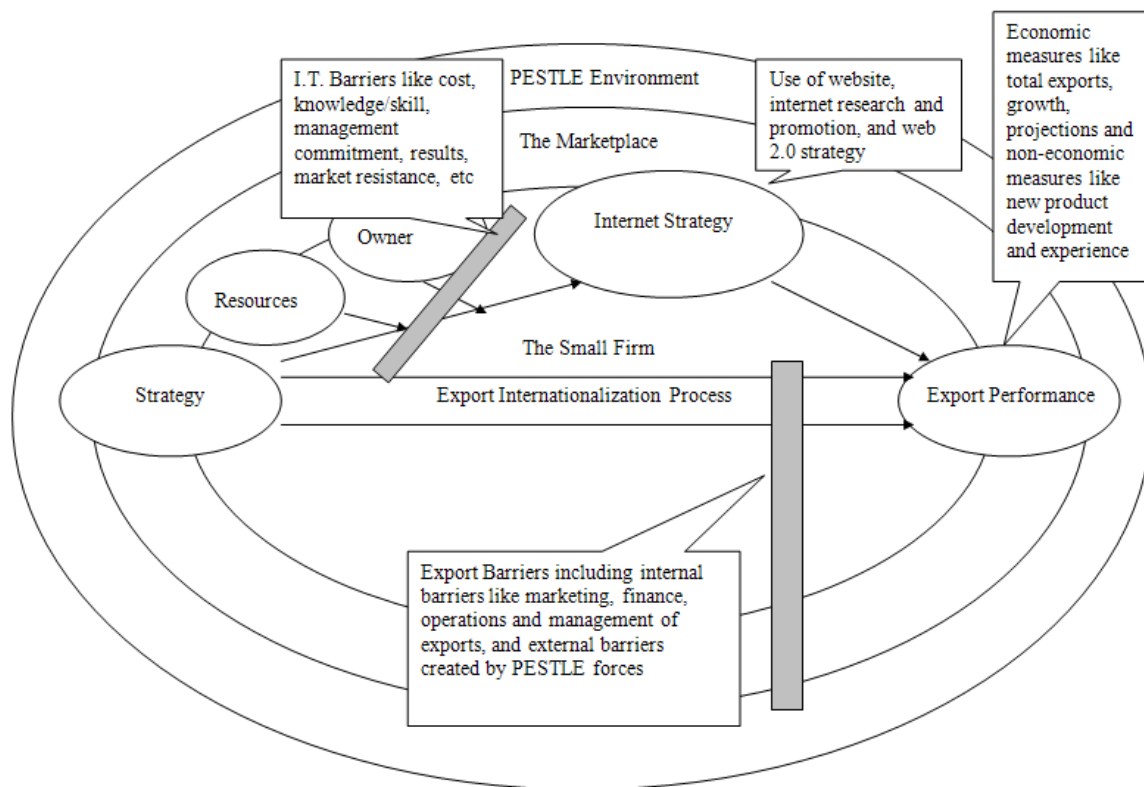


Figure 4. Qualitative Model of the Role of Internet Strategy for SME Exporters



## **Chapter Three: Methodology**

### **3.0 Introduction**

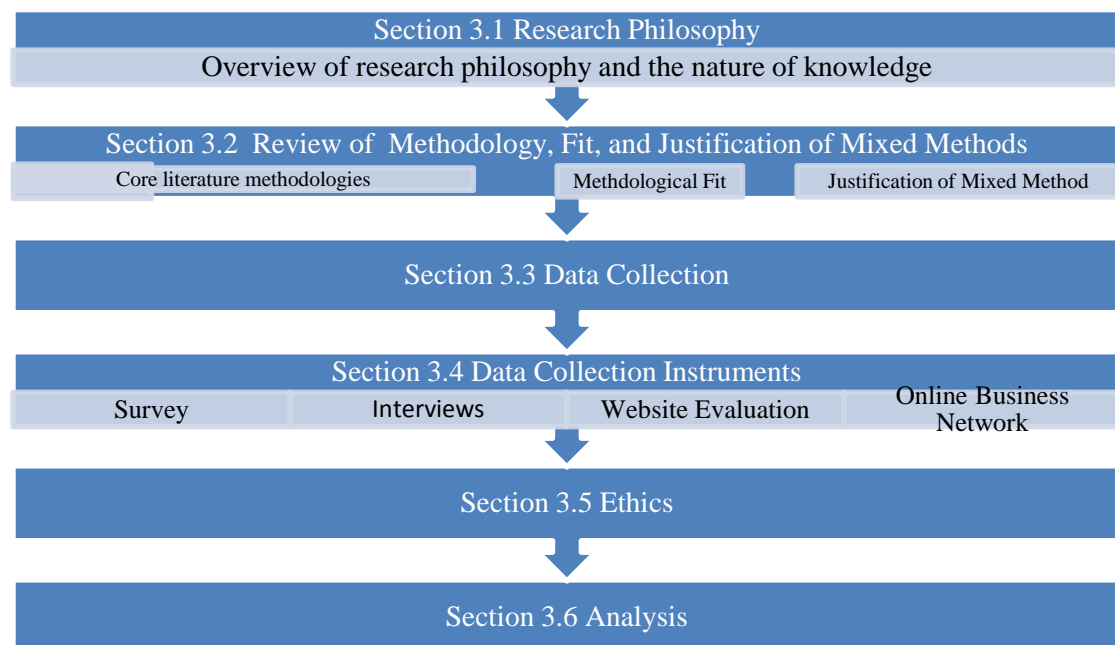
The model and research question developed in Chapter Two provide an integrated starting point for empirical research about export and the role of an Internet strategy. In general, this research will address what role if any the Internet serves for Canadian SME exporters and specifically how it helps those firms overcome export barriers and achieve export success. The research questions include:

- What export barriers do Canadian SMEs encounter?
- What role does the Internet serve in helping these SMEs overcome these barriers?
- How does an online strategy affect export performance?

The preliminary expectation is that the Internet will have a positive influence in helping small firms overcome export barriers towards achieving export success. But the approach to answering this question affects the results. Therefore consideration of the methodology for this research is necessary. This section will provide an overview of these considerations and the approach taken to data collection and analysis.

The primary purpose and focus of this research is to explore Canadian SMEs, export and the role of the Internet. The Canadian context is appropriate for this research given the export-intensive economy outlined in Chapter One. There are approximately 1,000,000 registered, staffed businesses in Canada, and over 990,000 of them are SMEs. While it would be enlightening to consider the perspective of all members of all Canadian SME exporters, such as census is not pragmatic in terms of time and resources. Likewise, there are many methods for collecting data of many types from these firms, but pragmatics again dictates some methodological choices

are necessary. This section will consider the context and rationale for these choices. , informed by a review of research philosophy, the nature of knowledge and knowing, methodologies present in the literature, the research question, and the relevance of methodology to the plan of analysis. Section 3.1 will review research philosophy and the nature of knowledge and knowing. Section 3.2 will overview the methodologies used in the core literature reviewed in Chapter 2 and provide a justification for the use of mixed methodologies. Next, a discussion of data collection will be addressed in Section 3.3 and the data collection instruments in Section 3.4. Section 3.5 will overview the ethical implications of the chosen methods. Finally, Section 3.6 will provide details about the qualitative and quantitative analysis that will be completed. The structure of the chapter is presented in Figure 5 Overview of Chapter Three below:



*Figure 5. Overview of Chapter Three*

### **3.1 Research Philosophy**

This chapter considers the nature of social science and management research, the relevance of ontology and epistemology to a research topic, and design implications for a particular methodology. The first section considers fundamental concepts of research philosophy. The second section reviews the methodological traditions and state of the current body of research. The chapter then provides the position of this research within the ontological continuum and relevant epistemology. This positioning has implications for methodology, which is developed in the next section. In addition to methodology, a justification for specific research techniques in a multi-method process of data collection and analysis is developed. Finally, some consideration is given to ethical issues.

#### **3.1.1 Research Philosophy**

An understanding of research philosophy helps clarify research design issues such as the collection and analysis of data, the decisions about which designs may work best in different research projects, and how to navigate research projects (Easterby-Smith, Thorpe and Lowe, 2002). In general research can take one of three forms; pure, applied and action (Johnson and Christensen, 2000). The aim of pure research is the formulation of theory which may or may not have practical application. Discovery, invention and reflection are outcomes of pure research, which emphasizes dissemination of research throughout the academic community. Applied research “is intended to lead to the solution of specific problems, and usually involves working with clients who identify the problems” (Easterby-Smith et al, 2002, 9). This suggests practical applicability is an important evaluation criterion for measuring the worth of this type of research, both in terms of providing explanatory insight and/or providing

extensive generalizability. The third type, action research, suggests research should lead to change. Like applied research, the researcher's questions and problems are framed in terms of applicability. However, in this third type, application relates to a specific organization. The research should be of use to the organization – the intent is to effect change. Action research involves the perspective and/or representation of the organization in the design and implementation of the research (Tranfield and Starkey, 1998).

The research for this thesis will be conducted in natural settings and the results will have implications for owners and managers as well as for future research and the generation of new understandings of business theory. The research will develop themes, evaluate performance and provide solutions. Given Patton's (2002) discussion of research typology, this project is both explanatory and exploratory applied research.

### 3.1.2 The Nature of Knowledge and Knowing

The way we understand reality, the approach used to collect data, the resulting analysis and findings all flow from the understanding of reality. Ontology, or the nature of reality, provides the philosophical foundation for the researcher's view of the world. Typically, world views are categorized into two main perspectives, objective and subjective.

Easterby-Smith et al (2002) indicate an objective paradigm focuses on facts, the simplest elements of phenomena. Researchers seek fundamental laws that provide extensive explanation of causal relationships. In this approach the world is seen as

being knowable and research that follows this ontology is believed to produce evidence from which patterns of knowable truths can emerge. A quantitative methodology generally fits with an objective ontology and is usually experimental or quasi-experimental with validation being its primary purpose. This approach uses mathematical models and quantitative analysis (Johnson and Christensen, 2000) to pursue theory testing.

In a qualitative approach the world is typically viewed as socially constructed and subjective. Multiple realities must be considered in this approach with a focus on meaning, as theories are developed through induction from the data collected.

Qualitative research searches for rich patterns of interrelationship (McCracken, 1988). Exponents of such views tend to use in depth, qualitative approaches with a variety of methods or strategies (McMillan and Schumacher, 2001). The operating principle of qualitative research is apparently "the more oddball approaches the better" (Van Maanen, Dabbs and Faulkner, 1982, 20). In a subjective ontology the world is typically viewed as more socially constructed and individually interpreted. Reality, therefore, is relative (Hackley, 2001). Exponents of such views tend to use in depth, qualitative, approaches with a variety of methods or strategies (McMillan and Schumacher, 2001).

A reading of Johnson and Christensen (2000) suggests that for areas of inquiry without a significant body of research, qualitative research is an appropriate method of inquiry to begin. "Qualitative research is often exploratory; that is, it is frequently used when little is known about a certain topic..." (17). The use of qualitative research for exploratory purposes is supported by Van Maanen et al (1982). They

argue that qualitative work should "begin with close-up, detailed observation. The specific and local are sought as a primary data base within which patterns may or may not be found" (20). A qualitative view will help explore themes in the literature, note patterns, relationships between variables, find intervening variables and generally build chains of evidence (Miles and Huberman, 1994). Weick, Sutcliffe and Obstfeld (2005) argue this sensemaking emphasizes "plausibility rather than accuracy", that "scholars stretch those moments, scrutinize them, and name them in the belief that they affect how action gets routinized, flux gets tamed, objects get enacted and precedents get set" (419). The researcher emerges him/herself in a context of action, observes, labels and reflects on the action and the context to find linkages to a greater whole and how the particular changes the whole. The aim of sensemaking is theory building. To support theory building a researcher must consider the methodological context of the field and develop an appropriate methodology for his research. This is the focus of the next section.

## **3.2 Review of Methodology and Justification of Mixed Methods**

### **3.2.1 Methodological Review**

As noted in the review of literature, over forty years of research exists in the areas of SME Exports, featuring systematic reviews by Tookey (1964), Bilkey and Tesar (1977), Bilkey (1978), Cavusgil, Bilkey and Tesar (1979), Reid (1981), Cooper and Kleinschmidt (1985), Rosson and Reid (1987), Madsen (1987), Miesenbock (1988), Cavusgil and Naor (1988), Rosson (1988) and Aaby and Slater (1989), Chetty and Hamilton (1993) and Leonidou (1996 and 2004). Much of this work has featured quantitative analysis (Aaby and Slater, 1989, Leonidou, 2004), and there are gaps in

the validity and reliability of the research body. Aaby and Slater (1989), for example, cite 55 export studies, of which 53 studies use statistical analysis as the chief method of analysis. “We judge much of the research reviewed to be somewhat simplistic and exploratory due to its focus on simple bivariate (i.e. one predictor and one dependent variable) relationships” (22). Leonidou (1995) similarly finds that “most of the studies adopted probability sampling designs” (18). In their review of export performance literature, Zou and Stan (1998) found most researchers use mail surveys for data collection and used regression and other statistical analysis. Leonidou and Katsikeas (1996) note the export development studies have “attracted criticism on structural, methodological and conceptual grounds” (13). Issues are raised about the quality of research questions (typically simplistic or posed in isolation), time frames (more longitudinal work needed), and a largely American orientation (developing country and cross-cultural work needed). Thus, opportunities to refine quantitative work exist; and, opportunities to develop qualitative insight appear relatively untouched. Theory building, for example around the use of the Internet for exporters to overcome barriers, would benefit from preliminary exploratory work.

While extensive research exists in the field of export study, and a significant body of study in the area of small business, the study of small Canadian firms’ use of the Internet to enter and maintain International markets is in development. Quelch and Klein (1996), Samiee (1998), Hamill (1997), Poon and Jevons (1997), Chrysostome and Rosson (2004), Lichtenthal and Eliaz (2003) developed Internet marketing theory based on non-empirical reasoning. Tiessen et al (2001), Rosson (2004), Loane and Bell (2002), Loane et al (2004), Crick and Jones (2000) and Saulnier and Rosson (2004) developed research from qualitative case studies or interviews. Quantitative

survey instruments were employed in the early stages by Hamill and Gregory (1997), Bennett (1997 and 1998), Jones (2001) and Prasad, Ramamurthy and Naidu (2001), and in more developed stages by authors such as Vivakanandan and Rajendran (2006), Moen, Madsen and Aspelund (2008) and Mostafa, Wheeler and Jones (2006). Thus, as Parasuraman and Zinkhan (2002) note, much of the early Internet marketing research can be characterized as qualitative and theme-oriented serving as a “springboard” to launch theory (292).

Specific to the core research of SMEs, export and the Internet, 18 studies were identified. Please refer to Table 4 Summary of SMEs, Export and the Internet Literature for a listing of these studies. Fifteen employed a single methodology while three use at least two methods. Only one study completed website evaluations of 15 firms. Nine of the studies were primarily qualitative, using case studies and interview for the most part; the other nine were quantitative survey-based projects.

Table 4  
*Summary of SMEs, Export and the Internet Literature*

Article	Authors	Journal	Date	Methodology	Sample
Internetization as the necessary condition for internationalization in the newly emerging economy	Etemad, H. Wilkinson, I. Dana, L.	Journal of International Entrepreneurship	2010	Case Study	1 German firm
Use of the Internet in International Marketing: A Case Study of Small Computer Software Firms	Moen, O. Madsen, T. Aspelund, A	International Marketing Review	2008	Survey	635 Norwegian and Dutch firms



The Internet as an information conduit: A transaction cost analysis model of US SME Internet use	Lohrke, F. McClure Franklin, G. Frownfelter- Lohrke, C	International Small Business Journal	2006	Survey	42 U.S. firms
Export Marketing and the World Wide Web: Perceptions of Export Barriers Among Tirupur Knitwear Apparel Exporters – An Empirical Analysis	Vivakanandan, K. Rajendran, R.	Journal of Electronic Commerce Research	2006	Survey	129 Indian firms
Entrepreneurial orientation, commitment to the Internet and export performance in small and medium sized exporting firms	Mostafa, R. Wheeler, C. Jones, M.	Journal of International Entrepreneurship;	2006	Survey	158 UK firms
The role of the Internet in the internationalization of small and medium sized companies	Loane, S.	Journal of International Entrepreneurship	2006	Case study and interviews	218 “shallow cases” from Canada, Ireland, Australia and New Zealand and 53 in-depth interviews
The functionality of Websites as Export Marketing Channels for Small and Medium Enterprises	Saban, K. Rau, S.	Electronic Markets	2005	Survey	105 U.S. firms
The Internet and Internationalization of Smaller Manufacturing Enterprises	Moini, A.H. Tesar, George	Journal of Global Marketing	2005	Survey	125 U.S. firms
The Effect of Website and E-Commerce Adoption on the Relationship between SMEs and Their Export Intermediaries	Houghton, K. Winklhofer, H.	International Small Business Journal	2004	Interview	25 UK firms

Walk don't run: e-business readiness in Canadian SMEs,	Saulnier, M. Rosson, P.	<i>Proceedings, Fourth Biennial McGill International Entrepreneurship Conference</i>	2004	Field Interviews and Website evaluations	15 Canadian firms
Internet and exporting: determinants of success in virtual export channels	Morgan-Thomas, A. Bridgewater, S.	International Marketing Review	2004	Survey	705 UK firms including some with up to 8,000 employees and an average size of 266
The internationalization of Internet-enabled entrepreneurial firms: evidence from Europe and North America	Loane, S. McNaughton, R.B. Bell, J.	Canadian Journal of Administrative Sciences	2004	Case study	10 European and North American firms and 40 "shallow cases"
Web language of localization and SME Exports: Preliminary findings of a 10 firm experiment	Tiessen, J.H.	Proceedings of the 2003 Annual Conference of the Administrative Sciences Association of Canada	2003	Field experiment involving web activity, quarterly survey and telephone interview	10 Canadian firms
A cross-national comparison of the internationalization trajectories of internet start-ups	Loane, S. Bell, J.	Irish Journal of Management	2002	Case study	200 "shallow cases" from Canada, Ireland, Australia and New Zealand
A model of e-commerce use by internationalizing SMEs" Journal of International Management	Tiessen, J.H. Wright, R.W. Turner, I.	Journal of International Management	2001	Case Study	12 Canadian firms
The Internet and SME exporting: Canadian success stories	Rosson, P.	Chapter in book edited by H. Etemad	2001 original publication; 2004 book publication	Case study	10 Canadian firms
Using the World Wide Web for international marketing: Internet use and perceptions of export barriers	Bennett, R.	Journal of Marketing Communications	1998	Survey	237 UK and German firms

among German  
and British  
businesses

Export marketing and the Internet: Experiences of web site use and perceptions of export barriers among UK businesses	Bennett, R.	International Marketing Review	1997	Survey	358 UK firms
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Four studies focused on Canadian SMEs, while two others factored Canadian firms in what the authors call ‘shallow cases’. As yet, little in the way of survey work or website evaluation has been completed regarding Canadian SME exporters’ use of the Internet, and all of the investigations have involved small sample size qualitative case

Table 5

*Summary of SMEs, Export and the Internet Methodology*

Factor	Number
Number of studies in core area	18
Single methodology	15
Multiple methodologies	3
Website evaluations	2
Canadian studies	4
Canadian qualitative studies	4
Canadian quantitative studies	0
Qualitative studies	9
Case studies	6
Interviews	4
Experiment	1
(Note: some firms used multiple methodologies so numbers do not add up)	
Quantitative studies	9
Survey	9
Sample size greater equal to or greater than 200 respondents	6
Sample size less than 200 respondents	3
Total number of firms in all 17 studies	2,994
Average number of firms	176

work. As outlined in Table 5 Summary of SMEs, Export and the Internet Methodology, the studies were primarily single methodology, with little attention given to website evaluations and little attention given to Canadian SMEs. Beyond the review of these core studies, findings from the literature review suggest an integrated approach to research may be appropriate. Coviello and McAuley (1999), Crick and Jones (2000), Jones (1999), Jones (2001) and Tiessen et al (2001) find that research about small firm internationalization via the Internet requires an integrated framework. To this point, Coviello and McAuley (1999) argue that “given the subject matter is ‘conceptually triangulated’, a pluralistic and triangulated approach to the research problem may be necessary. This implies that research designs will apply a variety of data collection methods and analytical techniques to examine various aspects of internationalization” (17). That is, an integrated conceptual piece of research would benefit by an integrated research process. This may be particularly relevant to SMEs, given Blackburn and Stokes (2000) suggestion that recent uni-dimensional methodology has led to a low level of understanding of SME topics. With this in mind, the next section will outline the mixed methods approach for this thesis.

### 3.2.2 Methodological Fit

To advance theoretical development research must employ a methodology that ensures rigorous investigation. Edmondson and McManus (2007) define methodological fit as internal consistency among the research questions, prior work, research design and the contribution to the literature. To achieve this fit, researchers must establish whether the body of work is at the nascent, intermediate or mature stage. The methodology adopted by a researcher flows from the stage of theory development as a ‘sensible connection’ to prior work (1159). Based on the

methodological review of literature, with both qualitative exploration of themes and model development, and quantitative work empirically testing and refining theory, it appears SME exporters' use of the Internet is in the intermediate stage of theory development. According to Edmondson and McManus (2007):

“Intermediate theory...presents provisional explanations of phenomena, often introducing a new construct and proposing relationships between it and established constructs. Although the research questions may allow the development of testable hypotheses, similar to mature theory research, one or more of the constructs involved is often still tentative, similar to nascent theory research” (1158).

It is the aim of research at this stage to provide provisional theory development, perhaps integrating separate bodies of work. As noted by the authors, intermediate theory research “draws from prior work – often from separate bodies of literature – to propose new constructs and/or provisional theoretical relationships” (Edmondson and McManus, 2007, 1165). This appears particularly relevant to the study of small businesses, export internationalization, and the use of the Internet. For while there is perhaps enough of a research foundation to support formal testing of hypothesis, there is not enough known to “do so with numbers alone or at a safe distance from the phenomenon” (Edmondson and McManus, 2007, 1166).

Thus, to achieve methodological fit with the state of the literature, and to support the exploratory aims of this research, the methodology for the study of the SME exporters' use of the Internet will flow from the intermediate stage of the literature. A justification for the specific methodology is presented next.

### 3.2.3 Justification of Mixed Methods

There is a growing call for multiple method research. Fielding & Fielding (1986) “advocate the use of both quantitative and qualitative methods”, particularly for researching organizations (41). Jick (1979) notes there is “a distinct tradition in the literature on social science research methods that advocates the use of multiple methods. This form of research strategy is usually described as one of convergent methodology, multimethod/multitrait, convergent validation or, what has been called ‘triangulation’” (107). The use of quantitative and qualitative methods should be seen as “complimentary rather than rival camps” and a means of validating outcomes (Jick, 1979, 107). Jick (1979) suggests multiple methods “can capture a more complete, holistic, and contextual portrayal of the unit(s) under study” (109). One result is a richer understanding of the phenomena under study. The author suggests researchers may conclude findings with confidence, stimulate creative methods, uncover ‘off-quadrant’ dimensions, and lead to a synthesis of theories. Patton (2002) notes the “logic of triangulation is based on the premise that no single method ever adequately solves the problem of rival explanations” (555). In their review of methodological issues in international entrepreneurship research, Coviello and Jones (2004) argue a “fuller understanding of such processes might best be gained through a reconciliation of positivist and interpretivist methodologies” (499). Given the state of SME exporters’ use of the Internet literature, a multiple method would ensure methodological fit. As noted in the previous section, this literature appears to be at the intermediate stage of theory development. For research at this stage, Edmondson and McManus (2007) suggest “such studies frequently integrate qualitative and quantitative data to help establish the external and construct validity of new measures through triangulation” (1165). Indeed, the authors argue that two methods “can be

combined successfully in cases where the goal is to increase validity of new measures” (1157).

Elsammani et al (2004), for example, used mixed methods (survey and interviews) to “capture a cross-sectional picture of SMEs’ implementation practices” (150). “Each part of the research yielded data on a different part of the phenomena. A two-stage design enhances the validity of overall analysis by producing data on different aspects of the research area to build up a rounded and credible overall picture” (Elsammani et al, 2004, 150). Indeed, several studies under review for this research employed multiple methods, including Loane (2006), Saulnier and Rosson (2004), and Tiessen (2003).

Emerging from a review of research philosophy and a methodological review of the literature, an integrated approach appears appropriate. Aspects of both a qualitative approach to build theory and a quantitative approach to test the extensiveness of the theory appear consistent for the stage of theory development. This methodological triangulation (Patton, 2002) provides compatible data for a diverse, rich understanding of the firms investigated. As noted previously, the study of small Canadian exporters’ use of the Internet is in its infancy. A reading of Van Maanen et al (1982) and Johnson and Christensen (2000) suggest that for areas of inquiry without a significant body of research, qualitative research is an appropriate method of inquiry to begin. “Qualitative research is often exploratory; that is, it is frequently used when little is known about a certain topic...” (Johnson and Christensen, 2000, 17). This would seem particularly appropriate given the model developed at the end of Chapter Two is the intersection of three streams of literature. A qualitative view will help explore

themes in the literature, note patterns, relationships between variables, find intervening variables and generally build chains of evidence (Miles and Huberman, 1994).

The combined methods will clarify the small businesses' level of understanding as well as allow theory development (Eisenhardt, 1989). This seems particularly relevant given Shuman and Seeger's (1986) observation that SMEs are "not smaller versions of big business...smaller businesses deal with unique size-related issues as well, and they behave differently in their analysis of, and interaction with, their environment" (8).

Following Bryman's (2006) advice, this study will implement multi-method data collection sequentially, obtaining survey respondents first, completing website evaluations second, and obtaining interviews third. While the data will be gathered in this order, the analysis will start with open-ended questions and interview analysis first and proceed to statistical analysis second. This follows what Teddlie and Yu (2007) call sequential mixed methods sampling. Neither form of data (quantitative, qualitative) has priority, but the order of operations enables the theme-rich qualitative work to inform the statistically-rich quantitative work. A more thorough description of data collection follows next.

### **3.3 Data Collection**

#### **3.3.1 Overview**

The next consideration is the unit of analysis or the organizational level of research.

Katsikeas et al (2000) list strategic business units, corporate, product and export



ventures as typical. They observe the unit of analysis common to “the overwhelming majority of studies” about export is the corporate unit (500). Wheeler, Ibeh and Dimitratos (2008) found the “unit of analysis in the majority of studies” of their review of 33 UK export performance studies was the firm (217), though there was an increased use of projects as the unit as well. Thus, for consistency with the field the unit of analysis and source of data for this study shall be the corporate-level Canadian SME exporter. As evident in the review of literature, owner/managers play a unique role in the decision-making of these organizations. Therefore the data collection targets these individuals. Curran and Blackburn (2001) note the difficulty of recruiting SMEs to participate in studies, citing low response rates. As detailed below, several tactics were employed to increase participation.

In their article about mixed method typologies, Teddlie and Yu (2007) suggest sampling techniques should stem logically from the research question, adhere to the assumptions of the sampling techniques they are using, generate thorough databases which enable clear inferences from both qualitative and quantitative data, and the techniques should be sufficiently transparent to the reader. A sample is a “set of respondents selected from a larger population” (Salant and Dillman, 1994, 53). The sampling for this study involves purposive sampling. Drawing further from Teddlie and Yu (2007), obtaining respondents in this manner differentiates in several keys ways from probability sampling. Purposive techniques aim to generate a few small cases to yield an intensive understanding of the unit of analysis and rely heavily on the judgment of the researcher. As a result of both sampling error cannot be assessed and generalizability is problematic. Non-probability sampling provides no way of estimating the probability that any element of the population will be included in the

sample. By contrast, probability techniques generate many cases to support extensive, generalizability and follow transparent terms to ensure representation of the population. Each element of the population has a “known, nonzero chance” of being included in the sample (Churchill and Iacobucci, 1995, 324). Final sample elements are selected objectively with a structured process. This objectivity enables the researcher to assess the reliability of the sample results. Teddlie and Yu (2007) contend “the researcher’s ability to creatively combine these techniques is one of the defining characteristics of MM research” (209). These sampling techniques may involve multiple samples of various sizes.

With this in mind, data for this research study was generated from the target population of Canadian SMEs which include companies with up to \$100 m in sales and less than 250 employees and are primarily independent (i.e. not a subsidiary). These firms export to at least one other country and maintain a website with at least English content. The sample of firms was generated from two sources. The first source was the network of approximately 7,000 SMEs maintained by Export Development Canada (EDC), a national Crown Corporation that supports and promotes Canadian exporters. EDC circulated invitations and reminders to participate in an online survey by several mediums, including an e-newsletter, a listserv and via its website. These efforts generated 32 responses; due to the multiple-method invite distribution it is difficult to estimate a response rate. Of these 32 responses, 21 were deemed usable; nine were incomplete and had to be discarded, while two were completed by companies that exceeded the size parameters noted above. A concurrent sample was generated from Industry Canada’s Canadian Companies Capabilities database. The database is a national repository of information about

Canadian firms, featuring approximately 60,000 small, medium and large firms. The database was configured to return SME exporters, with websites. 254 firms representing all ten provinces, a range of industries and a range of sizes were invited to participate in the study. 74 firms responded by completing the survey and 62 were deemed usable, representing a 24.4% response rate. The twelve responses discarded were incomplete. In total, then, 83 respondents completed the online survey, the first step in generating data for this study.

This data was generated by several data collection instruments. A description of these instruments follows in Section 3.4.

### **3.4 Data Collection Instruments**

#### **3.4.1 Survey**

The online survey was developed following the guidelines of Salant and Dillman (1994) and Churchill and Iacobucci (2005). The form of responses may be open-ended so that respondents use their own words rather than be limited to a set of alternative answers, close-ended with ordered and/or unordered choices, and partially close-ended. Churchill and Iacobucci (2005) note that most researchers “believe that 4-point or 5-point scales provide more fine-tuned information” (p.243). Such scales ensure reliability as the alternative responses help make the question and answer clear, such that if respondents were asked the question again their responses would be similar. Structured surveys may contribute to poor validity, if the answer options do not reflect the “true state of affairs” (215) or the full range of possible answers. To address this limitation, an unstructured component can be incorporated to allow for open-ended responses in situations where the full range of possible answers is

unclear. In sum, the data generated by the online survey includes open-ended responses suitable for qualitative data analysis, and continuous interval, ordinal and nominal data suitable for quantitative data analysis. The survey included a total of thirty questions categorized in four main sections focusing on:

- The respondent, firm and industry (8 questions)
- Export statistics, attitudes and experience (13 questions)
- Export barriers and use of Internet to overcome these barriers (8 questions)
- Future objectives (1 question)

Some questions including as many as 12 items per question. Please refer to Appendix 5 Survey Instrument for a complete version of the survey. The survey was implemented using the online software of Survey Monkey ([www.surveymonkey.com](http://www.surveymonkey.com)).

### 3.4.2 Interview

Interviews were conducted with personnel from eight firms. Kahn and Cannell (1957) have described interviews as conversations with a purpose. McCracken (1988) suggests the interview is a “highly efficient, productive, “stream-lined” instrument of inquiry” (7). The questions prepared for these interviews provided a general outline for the conversations to allow for freer investigation of all topics. The questions ensured all desired concepts were covered according to the objectives of the research project (McCracken, 1988). As such, the interviews could be classified as semi-structured. These interviews were taped and transcribed at a later date to allow the interviewer to focus on what the interviewee were saying instead of note taking and, perhaps, distracting the other person. The interview data should generate “a rich, complex description of the specific cases under study” (Eisenhardt, 1989, 546). The questions were exploratory and avoided leading questions (Merriam, 1998).

McCracken (1988) reminds us that the qualitative investigator serves as a research “instrument” (18) in which “detection proceeds by a kind of rummaging process. The investigator must use his or her experience and imagination to find (or fashion) a match for patterns evidenced by the data” (19). McCracken (1988) suggests this requires simple adherence to the respondent’s ideas with an imposition of structure via prompts.

### 3.4.3 Website Evaluation

Upon receipt of a completed survey, a respondent’s website was identified and evaluated using the website evaluation instrument presented in Appendix 6 Website Evaluation Instrument. As described later in this section, for ethical reasons firms had the option to complete the survey anonymously. One firm of the 83 did; as a consequence a website evaluation could not be completed. Following the review of website evaluation literature, an instrument was devised to collect the next stage of data. An existing instrument developed by Hamill and Stevenson (2003) was adopted and adapted. The EYIMS (Evaluate Your Internet Marketing Strategy) model is an observation-based judgment rating of commercial websites which had been tested and revised by the authors based on over thirty-five company evaluations. Comparison instruments by Merwe and Bekker (2003) and Kim et al (2003), presented in the Appendices 3 and 4, were particularly influential in adapting the EYIMS, as were Cox and Dale (2002), Lee et al (2005) and Hassan and Li (2005). To test the instrument, twenty websites were randomly selected from the CCC database and evaluated. Two changes were made to the evaluation; the ten selected criteria were organized into four categories; and, the numeric rating system was preceded with documentation of the observed evidence. Observation of evidence forms the basis of the evaluation.

For each category a list of benchmark content was established to ensure validity and reliability of evaluation. The observation of evidence involved non-evaluative documentation of the presence of content according to each criterion. The criteria include:

- Clear Objectives
- Customized Value-added Content
- International Adaptability
- Customer Interactivity
- Marketing Interactivity
- Site Navigation
- Visual Impact and Design
- Technological Functionality
- Transaction Orientation
- Effective Content Management System

Following the documentation of website content, an evidence-based assessment of each criterion was made using a numeric scale of one to five. Each rating indicates the degree of supporting evidence found in a site; one indicates poor performance or an absence of supporting evidence; five indicates excellent performance and a clear demonstration of supporting evidence. For consistency of interpretation all evaluations were completed by the researcher. The time to evaluate varied based on the volume of information presented on sites (text, interactive graphics, number of pages, etc) but ranged from twenty minutes to two hours and thirty minutes. The minimum total score is ten; the maximum score is fifty. Only the publically accessible pages were evaluated. In sum, the data generated by the website evaluation includes documented observation data suitable for qualitative data analysis and ordinal numeric data suitable for quantitative data analysis. Please refer to Appendix 6 Website Evaluation Instrument for the assessment tool used in this thesis.

The instrument is not without limitations. As noted in the literature review, website evaluation is inherently subjective. In other words, the perception of the value of a website is in some part subject to the perceiver, so the instrument explicitly incorporates an element of the researcher's voice. While this invites bias, it also reflects the active role of the researcher's voice that is present in all qualitative research and all forms of analysis. It is the voice which generates insight. As Miles and Huberman (1994) note:

...our explanations flow from an account of how differing structures produced the events we observed. We aim to account for events, rather than simply to document their sequence. We look for an individual or a social process, a mechanism, a structure at the core of events that can be captured to provide a causal description of the forces at work (4).

To address the issue of bias a case study was developed with one participating firm, company BDC. The two owners of this firm evaluated their own website and reflected on the process and outcome. The findings of this evaluation provided insight about the issues of validity and reliability for this approach to data collection. A complete description of the case study website evaluation is presented in Section 4.2.2. Based on this case study, the instrument was structured according to evidence-based criteria, with a systematic documentation of website content that preceded evaluation. Sites were evaluated by one judge to ensure reliability, and the supporting evidence for the evaluation was documented for transparency. Comparable website documentation/evaluation work is present in the research of Tiessen (2003) and Saulnier and Rosson (2004). The ideal evaluators are the customers, suppliers, foreign representatives, partners, etc of the firm's website in question. Pragmatics did not permit this approach to generating data, but it was noted as a possible direction for future research.

As a source of data, the website evaluations reflect one behaviour of the participant SME exporters' online activity. Following the website evaluations, another source of data pertaining to online behaviour was generated. This is featured in the next section.

#### 3.4.4 Online Business Networks

As described in the literature review, online business networking sites are peer-to-peer platforms available on the Internet. These networks are part of the emerging Web 2.0 industry that represents more than \$23 billion in U.S. marketing spending alone. By leveraging the collective intelligence of these networks exporters can gather information about foreign markets, communicate with potential partners, and support some export activities. Web 2.0 activity for the firms in this research was largely accumulated from the open-ended survey questions, depth interviews and website evaluations. But, to further estimate the participating firms' online business networking intensity, data was obtained from one online network regarding each firm. LinkedIn ([www.Linkedin.com](http://www.Linkedin.com)), a business network prominent among online communities, is a network that enables business professionals to communicate and exchange information. To develop a variable, the total number of employees per responding firm that participate in LinkedIn was observed and the firms' total number of LinkedIn connections calculated. To account for size, each resulting figure was divided by the total number of employees per firm, resulting in a standardized scale measure. LinkedIn data is publically available. The data generated from this collection is suitable for quantitative data analysis. It is limited to this approach; it does not provide insight regarding network themes or dynamics or owner/manager



perspectives about this new online community. That said, the variable is a representation of a new, emerging activity, adding currency to this study. Thus, while the richness of this data may be limited, the opportunity for future research appears to be quite rich indeed.

### 3.4.5 Final Observations about Methodology

As noted by Patton (2002), any research procedure involves limitations of methods, resources and analysis. Sample size, data richness, and evaluation bias are limitations of the mixed methodology adopted for this study. Methods triangulation cannot be assumed to “produce some nicely integrated whole” either (Patton, 2002, 557).

Patton (2002) advises that different methods may produce results at variance from each other, while Bryman (2006) finds multi-method studies can lead to data redundancy. Easterby-Smith et al (2002) further this warning when they write that mixing methods “simply for the sake of getting a slightly richer picture” may “lead to contradictions and confusions” (41). As already noted, mixed method sampling can limit generalizability as small sample sizes or sampling error can mitigate how representative the sample is. In the case of this research, the use of EDC as a sample partner has advantages (an extensive existing network and the positive power of association with a well-recognized organization) and disadvantages (no personal contact by the researcher with EDC’s network of firms). The limitations of the specific instruments have already been noted. One further point to be made here relates to SME research. In their review of small firm methodology, Blackburn and Stokes (2001) emphasize the importance of delving into the process of SMEs. Apart from the open-ended questions in the survey, which represent three of the thirty questions, little process-delving exists in this thesis.

Offsetting these limitations is the overarching value of mixed methods research.

Patton (2002) writes that in essence:

...triangulation of qualitative and quantitative data constitutes a form of comparative analysis...Areas of convergence increase confidence in findings. Areas of divergence open windows to better understanding the multifaceted, complex nature of a phenomenon. (558)

Jick (1979) describes the outcome of multi-method research as holistic. Given the calls in SME internationalization literature for integrated, holistic understanding of the topics, it appears a mixed methods approach is quite suitable. It is also suitable to consider the ethical implications of the selected approach to answering the research question. This is the focus of the next section.

### **3.5 Ethical Considerations**

Any research that utilizes human participants must take into account the effects of the research on participants. Ethics generally are considered to deal with beliefs about what is right or wrong (McMillan and Schumacher, 2001). Research ethics considers the nature of practice in the pursuit of knowledge and provides guidance to ensure human dignity (Cohen and Manion, 1994). These related values form a creative tension within social research; the pursuit of knowledge and the dignity of individuals. Methodological variations create a challenging panorama of potential ethical situations. Thus, ethical guidelines must strike a balance between values and methods. Emerging from this creative context are several principles and practices of ethical research.

Participant's right to privacy is a key element of ethical research, often contrasted with the public's right to knowledge. In the context of social research, ethical research must consider the sensitivity of the information, the setting in which the information is provided and the dissemination of information emerging from the research outcomes (Cohen and Manion, 1994). Generally, the greater the sensitivity of information, the more privacy protection required. The researcher's intentions about the purpose of collecting this information were made clear and explicit and informed consent obtained.

According to the principle of anonymity, information provided by participants should in no way reveal their identity if they so wish. Confidentiality is another means of providing privacy. Respondent's information, views and contribution to the study were maintained in password-protected website and in locked facilities. This avoids any risk of violating privacy and betraying the participant.

Informed consent, which arises from the subject's right to freedom and self-determination, enables individuals' choice of participation in a research project after being informed of the project's factors that would influence their decision. This requires competence of the participant to make decisions, voluntarism or the free choice to decide to participate, full information about the parameters of their participation and the output of their participation, and comprehension of the nature of the research project. To reasonably ensure informed consent, respondents were provided:

- A fair explanation of the procedures to be followed and their purposes
- A description of the attendant discomforts and risks reasonably to be expected
- A description of the benefits reasonably to be expected

- A disclosure of the appropriate alternative procedures that might be advantageous to the participants
- An offer to answer any inquiries concerning the procedures
- An instruction that the person is free to withdraw consent and to discontinue participation in the project at any time without prejudice to the participant.

Source: Cohen and Manion (1994)

To respect ethical concerns that might arise participants in this research project were assured of their privacy in a written invitation and as part of the introduction to the online survey. Full anonymity was offered for those respondents who wished to remain anonymous. Survey responses were kept in a secure location. Participants had the option to opt out of the survey at any time prior to, during or after the survey completion. Prior to asking firms to participate, this research received institutional approval from the University Research Ethics Board. Each firm was provided with a full description of the intentions of the project before they are asked to commit to participation. Website evaluations accessed only those pages in the public domain, so issues of privacy, anonymity, confidentiality, deception and human participation were not relevant. Likewise, online business networks like LinkedIn were publically accessible.

### **3.6 Analysis**

#### **3.6.1 Overview of Analysis**

The analysis stage will undertake the process of deriving insight from the export experience of Canadian SMEs while reflecting on and contributing to the development of theory in general. Thus, analysis is a search for meaning. Consistent with Edmondson and McManus (2007), for research questions of an exploratory nature, data collection will be a mix of qualitative and quantitative methods. The authors recommend content analysis and initial statistical tests for such data. Content

analysis may be described as an analytic process of data reduction, data display and conclusion drawing and verification (Miles and Huberman, 1994). Data reduction involves selecting and focusing the chunks of data generated by qualitative means, a form of analysis that “sharpens, sorts, focuses, discards and organizes data” (Miles and Huberman, 1994, 11). Once sorted, qualitative data is displayed in tables, graphs, charts, matrices and other organizational devices. Such displays convey the depth and richness of a phenomenon in a format that is accessible and that supports conclusion-drawing. Conclusions about patterns, explanations, relationships and hypotheses result from the third element of qualitative analysis. The outcome and verification of conclusions are a key component of building research validity (Miles and Huberman, 1994). In some cases mixed method research unfolds sequentially (Teddlie and Yu, 2007). A review of the qualitative data generates themes and categories of relationships. This stage then informs the quantitative analysis that will be completed as the next part of the sequence. As noted by Edmondson and McManus (2007), data analysis methods often include content analysis, exploratory statistics and preliminary tests. Ultimately, analysis will lead to a theoretical contribution. In the case of intermediate research, Edmondson and McManus (2007) suggest mixed method research may produce a provisional theory, one that integrates previously separate bodies of work.

With this in mind, the first stage of analysis will include theme-based qualitative data analysis of interview data, open-ended survey responses and website observations. Patton (2002) refers to descriptions and quotations as the raw data of qualitative inquiry. Lewins, Taylor and Gibbs (2005) describe the analysis of this data as “the range of processes and procedures whereby we move from the qualitative data that

have been collected into some form of explanation, understanding or interpretation of the people and situations we are investigating” (1). Patton (2002) notes this kind of data is “longer, more detailed, and variable in content; analysis is difficult because responses are neither systemic nor standardized” (20). Central to this stage of research is coding text with labels to indicate thematic ideas. This approach to descriptive summarizing of the open-ended responses will facilitate organization of the data and interpretation of significance and/or relationships, the core meaning for SME owner/managers. This will provide insight into the unique small firm context, as well as informing the second, quantitative stage of the analysis. Following Churchill and Iacobucci’s (2005) conventions, open-ended responses will be scanned for incomplete, error-filled or disinterested responses. Any responses with spelling and grammatical errors will be corrected to ensure respondents’ meaning is clear. This follows from Hammersley’s (2010) discussion of transcription and “presenting the words we can hear in written form, and providing descriptive resources for interpreting them in much more deliberate fashion for the purposes of social science” (564). In addition to providing insight into the attitudes and beliefs of SME owners/managers, the qualitative data will support aspects of the quantitative data. This is described in the next section.

It is expected various export relationships will be evident from the qualitative analysis, and that these relationships will have a discernable influence on export performance. In fact, these relationships may be predictive or have properties of temporal ordering. For research exploring if relationships exist and the nature and strength of those relationship, particularly where several outcome variables are present, multivariate statistical analysis is appropriate (Diamantopoulos and

Schlegelmilch, 2000). Directions for future multivariate statistical analysis will be provided as an outcome of this research.

As this analysis involves data generated by the methodologies described above, it is appropriate to provide a summary of this data. Chapter Four describes this data, including aggregate information about the respondents and the information generated by the three approaches to collecting data.

## Chapter Four: Results

### 4.0 Introduction

The methodology described in the previous chapter generated data for analysis. The data will be summarized next including aggregate information about the respondents. First, survey response data will be provided, including specific information about the respondents' export barriers. Then, website evaluation data will be provided, including the firms' use of Web 2.0 strategies. The firms' LinkedIn online business network data will be presented and, finally, an overview of the nine interview respondents. The structure of the chapter is presented below in Figure 6 Overview of Chapter Four.

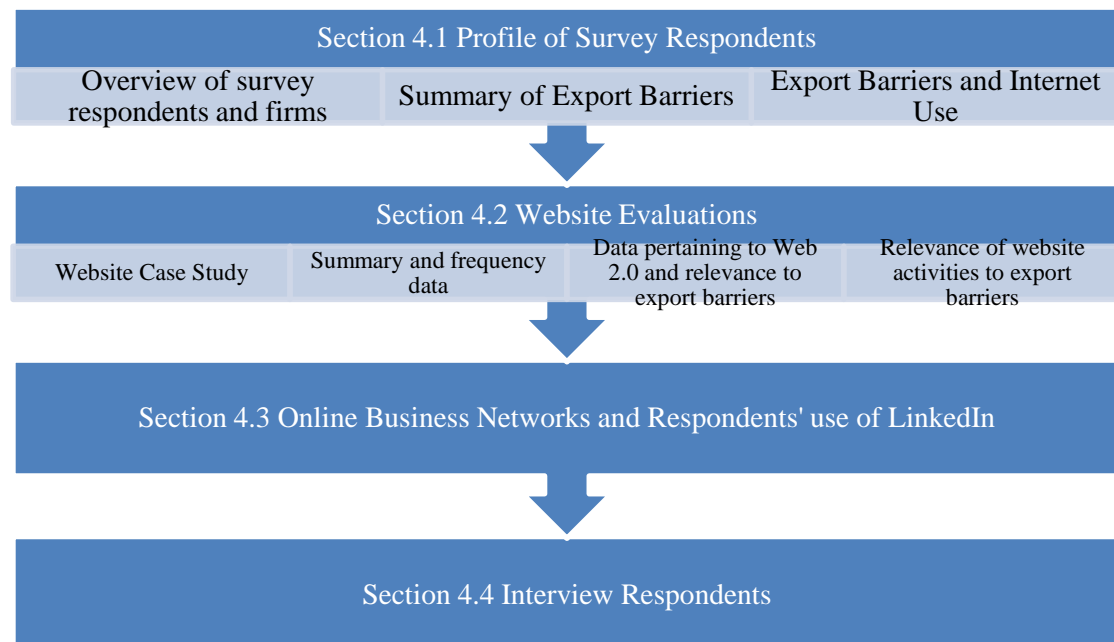


Figure 6. Overview of Chapter Four

### 4.1 Profile of Survey Respondents

#### 4.1.1 Overview of Survey Respondents and Firms

83 usable surveys were completed. Summary results are described here while detailed charts and graphs are available in Appendix 7 General Survey Data,



including a description of any data cleaning. The average firm had 66 employees, with the smallest having 6 and the largest 175. Revenues ranged from \$250,000 to \$37,000,000, with the average around \$10,800,000. The businesses that participated in the survey had been in existence for, on average, 21 years; some had started a mere 3 years before completing the survey, while one firm had been in existence for 77 years. 55% of the firms were primary/second industry focused; 43% were involved in service industries. 60% of the businesses were located in Ontario, Canada's largest province by population and economic development. All of the provinces were represented in the survey except Prince Edward Island, a relatively small province, and there were no respondents from Canada's northern territories.

The respondents themselves are primarily owner/managers, as 42 of the 83 respondents held ownership in the firm. On average the respondents held 1.8 positions in the firm, serving as founder/owners, executives and managers for the most part. The tendency to 'wear many hats' is a consistent finding in the SME literature. In addition to having a hands on role in the firm, these respondents have considerable experience. More than 70% of the respondents have worked for six years or more with the firms they represent. The average length of association respondents had with the firm was 6-10 years. While potentially biased regarding their involvement in the export process, the respondents see themselves as being central to the firm's internationalization. 69% state they are actively involved with managing exports. Thus, the respondents are the founders, investors, trustees, directors, on the floor managers and principal decision-makers regarding exports and Internet strategy. They are long-standing, key members of the exporting firms and apparently in the best position to offer input on the challenges of SMEs, export

barriers and the role of the Internet. Please refer to Appendix 8 Type of Respondents Survey Data for descriptive statistics about the respondents.

Several notable points of response data should be highlighted here about the export profile of these respondents. 95% indicate sales growth is the reason they export. Market diversification (77%), pursuing niche markets (55%) and customer motivation (49%) are frequently cited reasons as well. The companies cite about five export motivations per firm have led them abroad. The respondents are seasoned exporters. On average the firms have been exporting for about 15 years. The newest exporter has 2 years experience; the most experienced has been exporting for 38 years. The firms have on average about 10 employees dedicated to export or about 15% of the total employees per firm. Only 15 of the firms had an export department, though 30 firms had an export manager. These firms averaged about \$6,600,000 in export revenue, though the range among firms included a low of \$12,500 to a high of over \$32,500,000. Export intensity is the proportion of export sales to total sales and the respondents to this survey had an average export intensity of 61.4%. Indeed, 45% of the firms had an export intensity greater than 75% and 44% of the firms experienced an increasing rate of export sales growth over the last five years. This substantiates the point made earlier that the respondents to this survey are export oriented. While 72% of these firms were primarily targeting the United States, the respondents export extensively to Europe, Asia and markets in other parts of the world. It is no surprise then that 77% of the owner/managers indicate that exports are “very important” to the firms. Appendix 9 Export Profile of Survey Respondents provides complete details about the export orientation of the firms participating in this survey.

Overcoming export barriers is a key challenge for many exporters. This will be discussed in detail shortly. The next element of the respondents profile is the attitudes about and usage of the Internet.

Approximately 9 employees per firm are noted for using the Internet regarding exports. Thus, of the 10 employees on average dedicated to exports, 90% are using the Internet. A full 75% of the respondents indicate the Internet had an important or critically important impact regarding exports. It appears from initial responses that communication is one area of note, as 78% of the firms indicate the Internet is important or critically important. 65% note the same impact about researching foreign markets. However, Internet use and website management involve overcoming barriers. A lack of skills amongst employees is the most frequently cited issue and the most intense, as 40 of 79 or just over 50% of respondents indicate it is a 'barrier' or 'considerable barrier'. A high cost to maintain is also cited by 32% as a 'barrier' or 'considerable barrier'. Please refer to Appendix 10 Internet Profile of Survey Respondents.

Thus, the overall picture presented by this descriptive data is one of seasoned, dedicated, diverse exporters who appear to have a solid regard for the role of the Internet for at least some aspects of their business. To explore this further, the next section will present the data by topic based on two sources of data; open-ended responses to three survey questions about export barriers, use of the Internet and use of websites; then, consideration will be given to the transcribed observations of evidence written in support of website evaluations.

#### 4.1.2 Export Barriers

Participants were first asked to describe any export barriers their firm had encountered. The question was open-ended, though respondents were prompted with examples including difficulty obtaining local agents/distributors, market research, foreign regulations, communicating with customers, etc? The responses to this question were coded using Leonidou's (2004) study. A summary of the 83 firms that provided responses to the survey are provided below in Table 6 Summary of Export Barrier Responses.

Table 6  
*Summary of Export Barrier Responses*

Number of Barriers	Number of Firms Reporting Barriers	%	Cum %
No response	10	12.0	
No Barriers	11	13.3	
1 Barrier	24	28.9	28.9
2	18	21.7	50.6
3	9	10.8	61.4
4	5	6.0	67.4
5	0	0.0	67.4
6	1	1.2	68.6
7	1	1.2	69.8
8	0	0.0	69.8
9	1	1.2	71.0
10	0	0.0	71.0
11	1	1.2	72.2
12 Barriers	1	1.2	73.4
Total	83	100.0%	
Number of firms reporting at least one export barrier	61	73.5%	
Total number of barriers reported	152		
Average number of barriers for 73 reporting firms	2.1		

The responding firms experienced on average 2 barriers. Even when adjusted for outlying firms which experienced as many as twelve barriers, the average drops to only slightly below 2 per firm. 70% of the firms describe experiencing at least one barrier. The barriers vary by type and intensity. In his 2004 work Leonidou developed a classification based on his review of export barrier studies. This work

helps provide an estimate of the intensity of export barriers. The categorization by type of barrier, frequency and intensity is presented in Table 7 Export Barrier Classification and Impact Summary.

Table 7  
*Export Barrier Classification and Impact Summary*

Internal/External Classification	Freq.	%	Impact Classification	Freq.	%
Marketing	52	34.2	Very High	27	17.8
Finance	10	6.6	High	57	37.5
Operations	6	3.9	Moderate	46	30.3
Management	9	5.9	Low	10	6.6
Total Internal	77	50.7	Very low	3	2.0
Total External	75	49.3	Sub-total	143	94.1
Total	152	100.0	Other	9	5.9
Total				152	100.0

This approach recognizes the nature of control regarding the barriers; firms have more control over internal functional barriers like marketing, operations and finance; firms have less control over external barriers like currency fluctuation and foreign regulations. Based on this classification it appears internal, management-related (i.e. marketing, finance, operations) barriers are roughly equal to the number of external barriers experienced by the respondents; firms cite 77 internal management barriers and 75 external barriers. Table 8 Export Barrier Frequency provides a summary of this information. Marketing are the most cited internal challenges, representing 34% of the total challenges, while external issues like regulations, tariffs and documentation pertaining to foreign government policy and procedure are the most often cited external barriers. It appears these barriers represented a significant obstacle, as 84 of the 152 total barriers cited were of the ‘high’ or ‘very high’ impact categories as identified by Leonidou (2004). Foreign representation was the most often-cited barrier. Interestingly, in the survey question about export channels, 56 of the respondents note agents are ‘moderately important’

Table 8  
*Export Barrier Frequency*

Survey Code	Barrier	Category	Impact by Leonidou Classification	Freq.
k)	obtaining reliable foreign representation	Marketing	High	19
p)	strict foreign rules and regulations	External	High	16
	problematic communication with overseas customers	Marketing		
x)	customers		Moderate	11
ab)	high tariff and nontariff barriers	External	Moderate	10
o)	foreign currency exchanges risks	External	High	9
ag)	verbal/nonverbal language differences	External	Low	9
an)	Other	Management		9
a)	limited information to locate/analyze market	Marketing	Very high	6
e)	excessive transportation / insurance costs	Finance	Very high	6
b)	inability to contact overseas customers	Marketing	Very high	5
m)	unfamiliar exporting procedures / documentation	External	High	4
n)	unfavourable home rules and regulations	External	High	4
y)	slow collection of payments from abroad	Finance	Moderate	4
aa)	keen competition in overseas markets	External	Moderate	4
c)	identifying foreign business opportunities	Marketing	Very high	3
f)	different foreign customer habits / attitudes	External	Very high	3
l)	granting credit facilities to foreign customers	Finance	High	3
t)	shortage of working capital to finance exports	Finance	Moderate	3
z)	lack of home government assistance/incentives	External	Moderate	3
h)	political instability in foreign markets	External	Very high	2
s)	inadequate untrained personnel for exporting		Moderate	2
u)	providing technical after sales service	Marketing	Moderate	2
v)	complexity of foreign distribution channels		Moderate	2
ac)	unfamiliar foreign business practices	External	Moderate	2
ad)	different sociocultural traits	External	Moderate	2
ai)	adapting export product design/style	Marketing	Very low	2
d)	difficulty in matching competitors' prices	Marketing	Very high	1
g)	poor / deteriorating economic conditions abroad	External	Very high	1
i)	offering satisfactory prices to customers	Marketing	High	1
j)	accessing export distribution channels	Marketing	High	1
r)	lack of managerial time to deal with exports	Management	Moderate	1
ae)	meeting export product quality standards/specs	Marketing	Low	1
am)	unavailability of warehousing facilities abroad	Operations	Very low	1
q)	problematic international market data	Marketing	Moderate	0
w)	adjusting export promotional activities	Marketing	Moderate	0
af)	lack of excess production capacity for exports	Operations	Low	0
ah)	developing new products for foreign markets	Marketing	Very low	0
	meeting export packaging/labelling requirements	External		
aj)	requirements		Very low	0
ak)	maintaining control over foreign middlemen	Operations	Very low	0
al)	difficulty in supplying inventory abroad	Operations	Very low	0
			Total	152

or 'important' to serving foreign markets while 42 note the same regarding distributors.

A review of the open-ended responses support Leonidou's (2004) approach to classifying data, as respondents describe considerable frustration particularly with external barriers that are generally outside their sphere of control. Owner/managers also describe challenges in managing the marketing, financing and operations of exporting, noting their own limitations as much as the challenge of the tasks.

Respondents raise other important factors not included in the Leonidou (2004) classification. The impact of barriers can affect a firm to different degrees at different points in the export process. Respondents cite barriers at start-up that last over the entire export process versus barriers that emerge later in the process due to changed circumstances. Furthermore, respondents sometimes emphasize the export market as an important context for the impact of a barrier. Exporting to the United States, for example, presents different challenges than exporting to Japan.

In addition to describing the export barriers they faced, respondents were also invited to detail their online activity regarding these barriers. The results of these open-ended questions will be presented in the next section.

#### 4.1.3 Internet and Website Use

Survey respondents were asked to describe if and how the Internet and their websites helped them overcome the export barriers their firm had encountered. The two questions were open-ended and the responses to this question were coded according to activity and are presented below. As the majority of the respondents cite marketing barriers and as this is the focus on this research, only the marketing-related Internet and website activity will be reported. Please refer to Table 9 Internet, Website and Web 2.0 Usage Frequency.

Table 9  
*Internet, Website and Web 2.0 Usage Frequency*

Activity	Source	Frequency	Respondents	%
Market Research	Survey	52	82	63.4%
Online Promotion and Communication				
email	Survey	55	76	72.4%
email alerts/RSS feeds	Website	9	80	11.3%
e/newsletters	Website	16	80	20.0%
register on search engines	Survey	41	76	53.9%
pop ups	Survey	5	76	6.6%
create links on other websites	Survey	36	76	47.4%
online networking	LinkedIn	See dedicated information		
peer forwarding	Website	4	80	5.0%
blogging	Website	4	80	5.0%
online forums	Website	10	80	12.5%
Foreign Representation	Survey	20	81	24.7%

Respondents varied in their descriptions of these activities. In some cases the owner/manager made a direct link of the activity to the barrier, and described the utility achieved. In other cases, the responses appear as separate entities; an export barrier cited in the first response and the Internet/website activity described in the following response had little to no connection.

The success of specific Internet strategies to address specific barriers varied across respondents. Firms cited the challenges of gathering foreign market research (a very high impact barrier by Leonidou's classification) and identified the Internet as a crucial means of overcoming the barrier. Other firms cited the same challenge yet demonstrated no success in using the Internet to address the challenge.

The range of Internet activities provided in these open-ended responses demonstrated varying degrees of awareness and varying degrees of the perception of value.

Respondents often cited knowing technology was available but that they were not



familiar with its use or purpose. Others mention having access to technology but that they questioned its applicability to their firm/industry/market. This factor of awareness and value takes on greater significance given the respondents are the key decision-makers for their firm in most regards; they are the founders, owners, senior executives, managers, etc.

Based on a comparison of these open-ended responses and the ordinal impact of the Internet regarding exports question accompanying the open-ended response, the distribution of firms can be categorized in Table 10 Internet Use and Export Barriers. The firms included are 51 of the 56 firms citing export barriers as cited in Table 6 Summary of Export Barrier Responses. Five firms that cited barriers did not specifically indicate if the Internet did or did not address the barrier, therefore 51 companies are included below. The obvious conclusion from these open-ended responses is the perception among respondents that the Internet does address internal management-related barriers like marketing, where as it does not tend to address external barriers like foreign regulations, currency fluctuation, tariffs, etc.

Table 10  
*Internet Use and Export Barriers*

	External Barriers	External + Internal	Internal Barriers	Total
Internet does address barrier	3	7	7	17
Internet somewhat addresses barrier	6	5	3	14
Internet does not address barrier	18	0	2	20
Total	27	12	12	51

Open-ended survey responses make sparse reference to online networks or Web 2.0, though it appears many of the respondents are building if only a small presence. Furthermore, a review of the transcribed website evaluation observations provides more information about the firm's web presence inclusive of Web 2.0 activity. This forms the next stage of qualitative analysis.

## **4.2 Overview of Website Evaluation Observations**

### **4.2.1 Introduction**

As discussed in Chapter 3: Methodology, website evaluations were completed for all survey respondents. Website evaluations focused on the public "front" and did not evaluate password-protected back pages. Ten criteria were identified and used to structure the evaluations. Each criterion was rated numerically on a scale of 1-5 for containing:

Poor = little to no demonstration of criteria evidence = 1

Fair = basic demonstration of criteria evidence = 2

Average = decent demonstration of criteria evidence = 3

Strong = good demonstration of criteria evidence = 4

Excellent = exceptional demonstration of criteria evidence = 5

Thus, the rating is a categorization of sites based on evidence observed. The evaluation assumes each criterion is equal, which is likely not the case. Further exploration of this weighting appears to be an interesting area for development. Website evaluations were completed for 80 of these respondents, as one firm completed the survey anonymously and two of the firms had ceased operations by the time the evaluations were completed. While presented in quantitative form, the

number-based evaluations are based on subjective, observation-based evidence. This evidence was substantiated with a transcription of observed evidence.

Because website evaluations were completed over two different time periods, a multivariate analysis of variance (MANOVA) test was performed. A MANOVA “enables the comparison of several groups in terms of multiple (interval-scaled) variables” (Diamantopoulos and Schlegelmilch, 2000, 209). The Wilks Lambda of .612 indicates there is no significant difference in the evaluations. As such, the data can be evaluated as one whole. Details of this verification are available in Appendix 11 Website Manova.

#### 4.2.2. Website Evaluation Validity and Reliability: A Case Study

The website evaluation instrument used in this research incorporates objective and subjective data collection. Part of the data collection involves objective documentation of phenomena on websites. The other part involves the researcher judging the effectiveness of the site by criteria using a numeric scale. Such an evaluation raises questions of validity and reliability. The instrument relies on evaluative judgments of the value of something across multiple uses by a single researcher (Miles and Huberman, 1994). To address these issues, a case study self evaluation was employed using one of the participating firms. The firm completed an evaluation of its own website to help analyze if the instrument generates the data it is intended to generate. Using the firm’s perspective, issues with data generation and analysis will be elucidated for a more robust treatment in the thesis. This section will describe the case study.

### *Company Overview*

BDC is a small, micro business in the craft and giftware industry. The firm has five employees with occasional contract employees depending on the number of orders it is processing. BDC generates approximately \$250,000 in sales, of which almost 90% come from exporting to the United States. The company uses a direct export strategy for the most part, though just recently it has begun negotiation with a sales agent for some of its undeveloped markets in the western U.S. Attending trade shows in Philadelphia and Atlanta are important opportunities for meeting with current and prospective wholesalers, and it was at the most recent show that BDC started negotiations with a sales agent.

Over its eight years of exporting the firm has encountered several export barriers on a consistent basis. Like many Canadian exporters, the fluctuation of the Canadian dollar relative to the U.S. dollar creates opportunities, challenges and often frustration. Especially with the recent economic struggles on both sides of the border, wholesalers are quite sensitive to changes in currency value. For a small firm that has become quite dependent on export markets, an appreciation in the Canadian dollar in the time period leading into trade shows can sour negotiations with wholesalers. The recent trade show in Philadelphia showed improvement in terms of the number and size of orders, though not up to pre-recession and pre-parity volume. The border itself is another barrier for BDC. The company has found it easier and cheaper to physically transport American orders across the border and ship domestically within the U.S. Located near the Buffalo border, BDC can use this option relatively easily in terms of time and money. However, it comes with a price. Even though this firm is a

regular ‘customer’ of the border, documentation and inspection ‘hang ups’ are a regular occurrence. Traveling to Philadelphia for its recent trade show, the owners of BDC had prepared and submitted in advance all customs documentation to expedite its crossing. Inspectors raised concerns about document details that were consistent with previous submissions, only to be told whoever had been approving them were “a bunch of idiots”. BDC spent two and a half hours sorting the matter out. After eight years, the challenge of crossing the border to its key market has not diminished.

The two owners of BDC are also the two managers and two of the five employees. They are the main export personnel and decision-makers. In terms of website design and maintenance, all work has been completed by one of the owners, though both “have their hands in the pot”. The two owners agreed to complete a website evaluation using the modified EYIMS instrument.

#### *BDC Website Evaluation: Process Description*

The website evaluation was completed as part of an overall case study involving BDC. The company already had plans to work with a web design company to “overhaul” its site so the owners felt the website evaluation process might serve as a good primer for its future plans. The company was emailed the website evaluation instrument with guidelines for use. The guidelines overviewed the instrument and the evaluation process, requesting documentation of supporting evidence followed by the criterion rating. The owners decided to complete the evaluation together, though as will be apparent below, they documented evidence per criterion together but numerically rated individually. The individual ratings were compared and discussed

and a single rating agreed upon. In a follow-up discussion, the owners noted, “we usually had the same score and always were within one”.

An outline of the interaction with the company is presented below. Altogether the two owners committed about three hours of telephone time (two hours and fifty minutes) and approximately three and a half hours to the website evaluation. The time included:

- Thirty minute telephone depth interview about export barriers and the Internet with both owners
- Forty minute discussion about instrument and evaluation process, with some discussion of BDC’s upcoming plans to redesign their site with a website design company
- Three and a half hours of website evaluation completed the following day. During this time they documented, rated, discussed, called the researcher and made plans for their website upgrade. Five calls included:
  - 10 minutes to clarify about the nature of listed objectives, the rating process and the documentation required
  - 15 minutes to find out about segmentation and customer customization as indicated on the content section of the instrument. These were new terms to the owners (to their stated embarrassment and interest), and as a result more plans were developed for their website overhaul. They clearly showed uncertainty about segmentation
  - 10 minutes regarding the international criterion and to debate if the U.S. is foreign or domestic. They were split on this; one owner arguing that a market representing 90% of its revenues and so politically, culturally and economically similar to Canada should be regarded as part of the domestic North American market; the other owner set in his belief that the United States is a separate and distinct nation from Canada. They decided to approach the rating using the specific criterion points listed and put aside whether it was ‘international’ or not.
  - 10 minutes regarding pricing and online transactions, as BDC does not sell online. The owners understand the relevance of the criterion for other companies but felt it was not relevant for them.
  - 15 minutes at the end of the evaluation to discuss their overall ‘score’ and to briefly discuss questions for their debriefing scheduled for the following day.
- A forty minute debriefing interview was held the next day to discuss their evaluation of the website evaluation instrument and process

A description of the firm’s evaluation, a comparison to the researcher’s evaluation and general discussion follows next.

## Website Evaluation

Comparative website evaluation data is provided in Table 11 Website Evaluations of Company BDC. This section will provide a comparison and analysis of BDC's self evaluation and the evaluation completed by the researcher, starting with the descriptive documentation and proceeding to the numeric ratings. From a general standpoint, the two evaluations resulted in quite comparable ratings; BDC rated its site at 27/50 and the researcher at 26/50.

Table 11  
*Website Evaluations of Company BDC*

Criteria	Rating	Comments	Rating	Comments
BDC Evaluation			Researcher Evaluation	
1. Objectives	4	The main objective of our site is to share information about our company and the different gifts and crafts we produce. While it is not great, our website allows us to share information with our wholesalers and give new customers a place to visit	3	The main objectives evident in this site are to disseminate information about the products and to some degree about the company. Based on several international references the firm appears to want to internationalize. Trade show references to dates, locations and booth stall numbers suggest the firm is engaging in cost effective marketing
2. Customized Content	1	We don't really have any "segmented" content (and we had never heard of that idea before!). All we really have is some photos of our different products and a bit of information about the company.	2	There is minimal evidence of segmentation/segmented content to clients. Wholesalers are invited to contact the firm for price specs but otherwise there is no indication of who the customer is or could be and what information about products etc is specific to that group. The information about the company, management, experience, etc is very limited.
3. International Adaptability	2	We only export to the US and it is not really a foreign market to us, but we include Canada and the US on our company info page, and we list US trade shows on our contact page	1	Besides a reference to the United States and a few lines about two American trade shows, there is no evidence of internationalization

4. Customer Interactivity	2	Visitors to our site can view photos of the different products we make, though the pictures are small and can't be enlarged. We have an email link on our contact page – I guess that is really all...	1	Customers can scroll over some product photos and send the company an email. There is no other evidence of interaction
5. Marketing Interactivity	3	As I said above we have a bunch of different product photos visitors can look at and we talk a bit about our company on the 'about us' page. We don't sell online so we don't include price information, but we do recommend wholesalers contact us. We haven't done any other communication stuff than our trade show listings	2	The products are effectively presented but not described in any way. The description of the producers is sparse; there is no description of the production process, creators, or distinctive qualities of the products. There is no information about pricing except that visitors can request information.
6. Site Navigation	5	The site is pretty easy to get around – as you say 'clear, clean, and consistent'	4	Clear, clean, site, though navigation bar layout is inconsistent
7. Visual Impact and Design	4	This one was easier for us to do and the ideas of visual design fit pretty well with our business. Overall I think the site looks good though you could always improve something or other. I think there is a lot of white space which help pick up the photos, and the colour scheme on the site matches the colour we use in our products. I don't know as much about segmenting or marketing but I think the visual of the site is good which all of the product photos.	5	The site looks great. The overall balance and proportion are effective, and the emphasis of the main page draws the viewer's eyes to the products. The overall unity of the site is tied together by consistent use of imagery, colour, whitespace and defining lines. This is a visual product supported by a visual site
8. Technological Functionality	4	Everything seems to be working	5	No issues in terms of download time, browser compatibility, and working links
9. Transactions	1	We don't sell online; we just sell to wholesalers and we just stopped selling to retailers. Wholesalers can contact us if they want price lists, but we usually try to talk with them at trade shows first. Sorry, we're not much help here...	1	The only evidence of transaction orientation is a recommendation that wholesalers forward requests for pricing
10. Content Management System + HR Organization	1	I think it's pretty clear about the content of the site and who created it, though because we don't have much on the site in terms of product description I guess we come up short here	2	Use of content management system (e.g. active server protocol) not evident, though material on site appears to be well managed. No clear indication of how current the site is and there are no Terms of use, legal statement, privacy statement or author provided
Total	27		26	

Both evaluations were completed in February 2011



The first stage of the evaluation is a documentation of evidence according to criteria. A presentation of the documentation key points is available in Table 12 Comparison of Website Evaluations of Company BDC: Documentation Analysis. BDC made a total of twenty-three observations about its site or generally about two per criterion. This falls short of the researcher's documentation which totalled thirty six observations or about three and a half per criterion. The company demonstrated uncertainty about what to document and what some criteria meant, so the difference in the amount of documentation may be attributed to unresolved questions. But, the observations were drawn from a template listing possible observations for each criterion, so it can be assumed that the documented items stem from a comparable origin. And, approximately fifty minutes of discussion about documentation and rating took place beyond the written instructions. Of the observations that were documented, twenty were documented by both BDC and the researcher. Since this represents 87% of the observations the company generated, some confidence can be taken as to the validity of the instrument.

Table 12  
*Comparison of Website Evaluations of Company BDC: Documentation Analysis*

Criteria	Number of key points addressed by BDC	Key points addressed by BDC BDC Evaluation	Number of key points addressed by Researcher	Key points addressed by Researcher Researcher Evaluation	Number of Shared points
1. Objectives	1	Share information	3	Disseminate information Internationalize Cost effective marketing	1
2. Customized Content	2	No "segmented" content Limited information about the company	2	Minimal evidence of segmented content to clients. Limited information about the company	2
3. International Adaptability	2	Foreign market listed Foreign trade show information	2	Foreign market listed Foreign trade show information	2
4. Customer Interactivity	2	Product photos Contact options	2	Product photos Contact options	2
5. Marketing	4	Product photos	4	Product photos	3

Interactivity		No price information Contact options Lack of communication		Lack of company information Lack of pricing information Contact options	
6. Site Navigation	3	Clear Clean Consistent	3	Clear Clean Inconsistent layout	2
7. Visual Impact and Design	4	Site looks good White space Photos Colour scheme	9	Site looks great Balance Proportion Emphasis Unity Imagery Colour Whitespace Defining lines	4
8. Technological Functionality	1	Working site	3	Download time Browser compatibility Working links	1
9. Transactions	2	We don't sell online Price lists	2	No evidence of transactions Price lists	2
10. Content Management System + HR Organization	2	Clear content Site author	6	Content management system Current Terms of use Legal statement Privacy statement Site Author	1
Totals	23		36		20

As noted above the two evaluations resulted in an overall rating of 27/50 by BDC and 26/50 by the researcher. Please refer to Table 13 Website Evaluations of Company BDC: Rating Analysis for details. While the rating of the sites makes the two evaluations appear quite comparable, there is only one rating that both BDC and the researcher 'agreed' on. In all other cases a difference of +/- 1 point resulted. Given the ratings are on a one to five scale, that means there is a 20% variability on nine items. It is difficult to say whether it is actually a 20% variation, as a rating of 3 may be the result of rounding down a bit and a rating of 4 could be the result of upwards rounding. Perhaps with a scale of one to one hundred this variability would be clearer. However, the rating instructions provided to company BDC and used for all website evaluations in this research used a preliminary grouping approach. By this approach, criteria were rated in the four-five category for strong demonstration of evidence, the one-two category for little or no demonstration of evidence, and rated as three if the site fell somewhere in between. Eight of the ratings share the same

preliminary ranges and the other two are adjacent ranges. Looking at the ratings, it appears the two evaluations differ in the interpretation of what constitutes ‘strong’ or ‘weak’ demonstration of evidence. But, from the owners’ questions about segmentation, internationalization, etc it also appears there can be differences in awareness about standard business practice, website standards and export practices. That is, that while best practices may exist, they are not known by or practiced by all businesses. As a micro business, BDC is quite aware they do not know everything they should about the use of websites – this is largely why they are contracting a website design company! Therefore, some differences in criterion evidence documentation and rating are to be expected and researcher expertise may reasonably yield more insight about websites (more documented observations).

Table 13  
*Website Evaluations of Company BDC: Rating Analysis*

Criteria	BDC Rating	Researcher Rating	Difference
1. Objectives	4	3	+1
2. Customized Content	1	2	-1
3. International Adaptability	2	1	+1
4. Customer Interactivity	2	1	+1
5. Marketing Interactivity	3	2	+1
6. Site Navigation	5	4	+1
7. Visual Impact and Design	4	5	-1
8. Technological Functionality	4	5	-1
9. Transactions	1	1	0
10. Content Management System + HR Organization	1	2	-1
Total	27	26	+1

### *An Evaluation of Validity and Reliability*

The use of a website evaluation instrument relies on evaluative judgments of value by a single researcher raising questions of validity and reliability. Using Miles and Huberman (1994) to investigate these issues, the next sections will present some post-evaluation reflections from the owners of company BDC.

On the day following their website evaluation, the owners of BDC reflected on their experience and the instrument. Overall they were quite enthusiastic about the process. As noted above, BDC has plans to ‘overhaul’ their site with the help of a website design company, so the self evaluation was a good preparation. Their general impression of the instrument and their experience was quite positive, as indicated by the following comments:

Owner 1: Absolutely. We are meeting with a web design company in a couple of weeks to redo our site so going through this process gave us a ton of ideas to bring to them. I developed the site myself and don’t really know what I’m doing but I tried to get it to look nice and look like the products. I just don’t have any experience with segmenting and customizing content so a lot of that stuff is new to me.

Owner 2: We never thought about including YouTube videos of our production process though we know some others who do it – we just never thought about it for ourselves. Wholesalers and buyers like to know about the person and the process behind the product and it helps them decide if they are going to buy, so we really want to add this dimension to our site. And we see companies who hand out bios of themselves describing their creative process, but again, we just never thought to add it to our site. Going through the different criteria really made us think about what we could do to make it more interactive and useful, so thanks very much for including us in this process.

From their management point of view, going through their site with criteria became a benchmarking exercise, generating ideas for improvement and giving them a gauge of where their site stands compared to some yardstick. This was not the purpose of the evaluation, though as a compilation of website literature and company application it

does offer 'best practices' for companies like BDC. They clearly saw the evaluation as an opportunity to reflect on their site from a user's point of view and improve/change/update their site from an owner's point of view. They talked about the user's process; e.g. 'the site only works for people who have seen the product in person because there is no product description and the photos are small'. They mentioned several times about using ideas from the instrument to improve their site. This was of particular value to the owners.

During discussion the owners described trying to be 'critical' and 'accurate', but feeling torn as they also felt they were planning for their future site and wanted to work that into their evaluation. In other words, 'we are going to do this and this so should we factor that into our rating?' The 'severity' of evaluation, then, was an element of their view of accuracy. They could rate the site 'accurately' by being critical or generously by considering their personal perspective (e.g. future plans). This, however, resulted in harsher ratings. Thus, it is possible this SME underestimates the effectiveness of elements of its site and/or overestimates the effectiveness of other elements. Without a background in creating an effective user experience, designing interactive opportunities, managing online communication, and ensuring customized content to the firm's segments, a SME may be in a poor position to manage their websites. This raises a question about a firm's ability to effectively gauge what message it should be sending and how its message is being received. Yet, this very uncertainty lends support to the idea of an external evaluation of a site, whether by the means used for this research, or by a panel of external evaluators.

The owners of BDC offered some reflection about the instrument itself. For the most part they regard the criteria as reasonable and appropriate for assessing a site. The criteria were just not always relevant. To this point, one owner commented:

“Visual design was so appropriate and easy for us and our business. The criterion words were comfortable for us compared to other terms like ‘content customization’ and ‘segmenting’. With the Objectives it was important to see some of the shortcomings of our site. We don’t sell online so the transactions part was not applicable to us but it would be if we sold online. Customer interactivity was appropriate, but just showed how weak our site is. So altogether the criteria are relevant for websites, it is just our site doesn’t hold up to all the criteria.”

These reflections raise a key question of validity. The instrument assumes all sites can be evaluated according to the same criteria, yet BDC’s experience suggests this may not be the case. That the firm is not familiar with ‘segmentation’ or ‘customization’ does not undermine an evaluation instrument, as such concepts are fundamental to an SME or any sized business. Poor performance along these lines reflects poor performance. However, maintaining a website without online sales transaction does not reflect the firm’s performance in terms of sales. To BDC’s point, they are getting penalized for a game they are not even playing rather than playing the game poorly. If true, this raises questions of the validity of the instrument. In their interpretation, the owners of BDC associate selling online with ‘transaction orientation’. In fact, the objective of this criterion is to gauge the sales messages of the firm’s website. According to the information for this component, evidence of ‘transaction orientation’ includes:

- Online sales capability, third party assurance, customer accounts, customized profile, with preferences, history
- Pricing, information about payment, terms and conditions, shipping norms, foreign exchange info, Stock information, Quantity available
- Sales rep contact information, agents, distributors
- Sales news
- Credit application form
- Request a quote form

The ability to sell online is one, albeit influential, component of demonstrating a firm is keen on selling. BDC accurately assesses its lack of a transaction orientation – it provides little to no evidence of any of these criteria – but it misinterprets the nature of what a transaction orientation is. From the researcher’s point of view, this is not a question of validity as the researcher completes all evaluations.

The owners of BDC go on to observe that the instrument generates an evaluation that reflects the true value of their website:

I think so, we knew the site wasn’t great. When we go to trade shows wholesalers will ask us “do you have a website” and we say “yeah, but it’s not very good”. So, the outcome of the evaluation was not a surprise to us. But in terms of if it is an accurate representation of our site, I think it is. We worked through it together but we would do the ratings separately and then compare our scores and we were really consistent. We usually had the same score and always were within one.

Documenting evidence from a website is a relatively objective undertaking. A firm has foreign language content or it doesn’t; it provided links to You Tube videos or it doesn’t; the site demonstrates current content or it doesn’t. Documenting this evidence was fairly straightforward for BDC. Converting this evidence into a numeric rating on a scale of one to five requires judgment, and that judgment is subject to the person completing the evaluation. Subjectivity presents a challenge to the validity of website evaluations. One evaluator may like the colour red on websites and another may not. The prominence of a marketing message may strike one person favourably and another unfavourably. Is using a number rating system appropriate or is a site too hard to quantify? To this point one owner of BDC indicated:

Yes, a number is easier, and using a scale of 1-5 was better than say 1-10 or 1-100. I think a number rating works well and in some ways is

easier than doing a descriptive evaluation. There weren't any issues when we compared our ratings, and in combination with the written qualifiers the rating went pretty well. It is not easy to recognize your site doesn't hold up on some of the criteria, but it shows us where we have to develop things with our web design company.

When pushed to decide if evaluating a site too subjective, the owner concluded:

I don't think so. There is going to be some, but the volume of points per criteria guides you through the process. You would have to be pretty deluded to let subjectivity overrule that rational process. At the end of the day everyone evaluates our products, they evaluate us at the shows, they evaluate our website, everyone does it. So it happens all the time. Going through this process gives you some guidelines to go by and gives you some ideas about what you could do to make your site better.

Yet, the presence of subjectivity is apparent, just that "everyone does it". This does not minimize a potentially confounding element of data gathering, it merely normalizes it from a management perspective. Subjectivity is clearly present in an evaluation of a website, and this subjectivity raises questions of validity. Is the instrument generating the data it is intended to generate?

Miles and Huberman (1994) encourage rich, comprehensive descriptions triangulated and linked to theory to permit adequate comparison with other samples. For this research, the data to be generated is twofold; a documentation of website content which is more objective in nature and developed following a list of criteria; and, an evaluation of the effectiveness of the sites as part of a gauge of website behaviour leading to export performance. That the evaluations rely on the subjective critiques of one evaluator undermines validity; that the evaluations are all completed using the same judgment supports validity. Based on the experience with BDC, a future consideration would be to use a panel system of experts with wide-ranging expertise to minimize the undermining factor and maximize the supporting factor.



In terms of reliability, Miles and Huberman (1994) encourage data collection that will be consistent and stable over time and across researchers. Data collection should include close attention to clarity of study design and the researcher's role, connectedness to theory, and the use of protocols and quality checks. The study design was derived from an existing, tested instrument derived from and re-filtered through the literature. The researcher's role is explicitly linked to data collection and guided by theory. Data collection protocol involves the specific listing of criteria with best practice points guiding the documentation and evaluation of evidence. To ensure quality, twenty evaluations were completed prior to the study.

Since the ratings generally fall within the same range categories, and since the final ratings are quite comparable, it can be concluded that while differences in ratings will always exist, the implementation of this instrument was comparably done in this case, consistently applied by the researcher in all cases, generally generating valid material, and appropriate for use in this research. The results of this data collection are presented in the next section.

#### 4.2.3 Website Data

All website evaluation data is available in Appendix 12 Website Evaluation Data, while Table 14 Summary of Website Evaluations below presents a summary overview. The average rating was 34.1 out of 50. The average criterion scores are presented in order of highest performing to lowest in Table 15 Ranked Website Criteria Evaluations.

Aesthetic-based variables scored considerably better than content-based criteria. While technical barriers are often-cited IT challenges, there was little evidence of

poor technical performance among the respondents' websites. Generally speaking they were well laid-out and appeared aesthetically effective. The content of the websites varies considerably. The firms' appear to have genuine objectives for creating a website, but the substance is weak in several regards.

Table 14  
*Summary of Website Evaluations*

Website Evaluations		Objectives	Content	Internationalization	Customer Interactivity	Marketing Interactivity	Site Navigation	Visual Aesthetics	Technical Functionality	Transaction Orientation	Content Management
Total Evaluations	80										
Average	34.1	3.4	3.5	2.6	3.2	3.3	4.1	3.6	4.4	2.6	3.2
Distribution of Responses (#) by Evaluation Rating											
	1	1	4	20	7	0	0	1	0	16	4
	2	14	6	17	21	16	7	12	3	26	21
	3	29	32	20	21	33	13	22	9	20	25
	4	21	20	18	11	19	23	25	22	8	18
	5	15	18	5	20	12	37	20	46	10	12
Sum		80	80	80	80	80	80	80	80	80	80
Distribution of Responses (%) by Evaluation Rating											
	1	1.3	5.0	25.0	8.8	0.0	0.0	1.3	0.0	20.0	5.0
	2	17.5	7.5	21.3	26.3	20.0	8.8	15.0	3.8	32.5	26.3
	3	36.3	40.0	25.0	26.3	41.3	16.3	27.5	11.3	25.0	31.3
	4	26.3	25.0	22.5	13.8	23.8	28.8	31.3	27.5	10.0	22.5
	5	18.8	22.5	6.3	25.0	15.0	46.3	25.0	57.5	12.5	15.0
Sum		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Of particular interest are marketing, customer interactivity and internationalization criteria. Marketing and customer interactivity consider the experience site users have, inclusive of Web 2.0 activities. On average, the websites for the survey respondents

Table 15  
*Ranked Website Criteria Evaluations*

Website Criteria	Average Rating
Technical Functionality	4.4
Site Navigation	4.1
Visual Aesthetics	3.6
Content	3.5
Objectives	3.4
Marketing Interactivity	3.3
Customer Interactivity	3.2
Content Management	3.2
Internationalization	2.6
Transaction Orientation	2.6

score quite poorly in this regard, suggesting the respondents in this data set have done little to consider their customers' perspective as website users.

Furthermore, considering the respondents are all exporters, the poor internationalization of their websites does not support the export process in general. Foreign customers will find little to no evidence that the firms' are exporters or interested in export markets. It is notable that firms which are such committed exporters have on average very poor performing websites in terms of internationalization. This is particularly evident in Table 16 Website Use and Export: Summary of Website Observations.

While the firms note a lack of skills in their survey responses (50% indicate it is a 'barrier' or 'considerable barrier'), the top three-rated website evaluation measures suggest the firms are able to overcome this barrier at least to some degree.

The observed evidence on which these ratings were based was transcribed and collated. For example, the observation data regarding the internationalization for one respondent's site included:

*The primary evidence of internationalization is the U.K. segmentation, the list of international customers, some international case studies involving customers. Contact info presented for Canada, U.S. and U.K./Europe. Currency presented in U.S. dollars. ISO certification*

Categorized by activity, the observation frequencies are presented in Table 16

Website Use and Export: Summary of Website Observations.

Reordering the data in the previous table according to overall frequency provides another indication of what kind of website experience the respondent firms' emphasize. Table 17 Website Use and Export: Summary of Website Observations by Frequency shows that the respondents' sites are product-focused, news update sites. Since maintaining current content appears to be an issue for many of these firms based on their average content management rating of 3.2, the information about these elements and others was often out-dated. A little more than one-quarter of the firms have some evidence of customizing the content of their sites with foreign language. These firms primarily target U.S. markets, and while French and Spanish markets are growing, English is the chief language of business in America. However, the firms that are targeting foreign language markets generally struggle to translate content in a meaningful way, as evidenced by the low 2.6 internationalization rating. So while one quarter have some evidence of foreign language content, considerably less have effective foreign language content.

Table 16

*Website Use and Export: Summary of Website Observations*

Activity	Source	Frequency	Respondents	%
Market Research				
needs assessment	Website	24	80	30.0%
online forums	Website	10	80	12.5%
customer satisfaction	Website	7	80	8.8%
Online Promotion and Communication				
product specs/technical downloads	Website	51	80	63.8%
News	Website	35	80	43.8%
company/management	Website	18	80	22.5%
Testimonials	Website	17	80	21.3%
e/newsletters	Website	16	80	20.0%
trade fairs	Website	10	80	12.5%
online forums	Website	10	80	12.5%
email alerts/RSS feeds	Website	9	80	11.3%
Blogging	Website	4	80	5.0%
peer forwarding (email, site link)	Website	4	80	5.0%
Information for Foreign Representatives	Website	17	80	21.3%
Internationalization of Website				
Information about company	Website			
Certification	Website	14	80	17.5%
Awards	Website	13	80	16.3%
Experience/current activities	Website	12	80	15.0%
Mgmt's experience	Website	4	80	5.0%
Communication				
Language	Website	22	80	27.5%
Export/global terminology	Website	18	80	22.5%
International news	Website	15	80	18.8%
Trade fair news	Website	11	80	13.8%
Testimonials	Website	7	80	8.8%
international peer interaction	Website	2	80	2.5%
Target marketing				
Language	Website	22	80	27.5%
Information about distributors	Website	16	80	20.0%
Segmentation	Website	15	80	18.8%
List of foreign customers	Website	5	80	6.3%
Information for distributors	Website	2	80	2.5%
Customer service				
Contact information	Website	17	80	21.3%
Transaction				
Currency terms/translation	Website	6	80	7.5%
Shipping/logistics information	Website	4	80	5.0%
Aesthetics				
Target market imagery/graphics	Website	14	80	17.5%
Online Experience				
Interactive technology/graphics	Website	19	80	23.8%
videos/podcasts	Website	16	80	20.0%
online forum	Website	10	80	12.5%
peer interaction	Website	6	80	7.5%
pop ups	Website	2	80	2.5%
Customer Service	Website	22	80	27.5%

Given that foreign representation is the most frequently cited barrier for these respondents, and an often-cited barrier in general, it is perhaps surprising that only one fifth of the firms' maintain dedicated content for agents and distributors. Especially as 42 of 83 or 50% of the respondents consider distributors as a 'moderately important' or 'important' export channel and 56 of 83 or 68% consider agents as 'moderately important' or 'important'.

Table 17  
*Website Use and Export: Summary of Website Observations by Frequency*

Activity	Source	Frequency	Respondents	%
product specs/technical downloads	Website	51	80	63.8%
news	Website	35	80	43.8%
needs assessment	Website	24	80	30.0%
Language	Website	22	80	27.5%
Customer Service	Website	22	80	27.5%
Interactive technology/graphics	Website	19	80	23.8%
company/management	Website	18	80	22.5%
Export/global terminology	Website	18	80	22.5%
testimonials	Website	17	80	21.3%
Information for Foreign Representatives	Website	17	80	21.3%
Contact information	Website	17	80	21.3%
e/newsletters	Website	16	80	20.0%
Information about distributors	Website	16	80	20.0%
videos/podcasts	Website	16	80	20.0%
International news	Website	15	80	18.8%
Segmentation	Website	15	80	18.8%
Certification	Website	14	80	17.5%
Target market imagery/graphics	Website	14	80	17.5%
Awards	Website	13	80	16.3%
Experience/current activities	Website	12	80	15.0%
Trade fair news	Website	11	80	13.8%
online forums	Website	10	80	12.5%
trade fairs	Website	10	80	12.5%
email alerts/RSS feeds	Website	9	80	11.3%
customer satisfaction	Website	7	80	8.8%
Testimonials	Website	7	80	8.8%
Currency terms/translation	Website	6	80	7.5%
peer interaction	Website	6	80	7.5%
List of foreign customers	Website	5	80	6.3%
blogging	Website	4	80	5.0%
peer forwarding (email, site link)	Website	4	80	5.0%
Mgmt's experience	Website	4	80	5.0%
Shipping/logistics information	Website	4	80	5.0%
international peer interaction	Website	2	80	2.5%
Information for distributors	Website	2	80	2.5%
pop ups	Website	2	80	2.5%

It may be less surprising that these websites have not adopted in serious effort Web 2.0 peer-driven content and sharing and a rich customer experience. Web 2.0 is an emerging area of online strategy, and the respondents to this research have poor websites by several criteria of the evaluations. That said, several firms have made preliminary use of Web 2.0 and a summary of observed data is presented in Table 18

Web 2.0 Activity and Significance to Respondent's Website:

Table 18  
*Web 2.0 Activity and Significance to Respondent's Website*

Company	Website Web 2.0 Activity	Significance of Activity on Site
AG	Blogs, online forums	Low
Car	Peer posts, email alerts	Low
GD	Blog	Low
GXT	Internet meetings	Low
GE	e-newsletter RSS feeds	Medium
HC	Internet meetings, skype	Low
I3D	Internet meetings, online live customer service	Medium
KMAS	Peer email, Internet meetings	Medium
MMI	Peer posted testimonials, RSS feeds	Medium
ME	Peer email forwards	Low
OC	RSS feeds	Low
PGM	Facebook group, Twitter, peer forum, live chat	High
PI	Live chat	Medium
SCHL	Peer posted testimonials, Online live Q+A, news registration (RSS feed), peer "connections"	Medium
SA	News feed (RSS)	Medium
TTC	Facebook group, blog, skype	High
WWI	Blog, skype	Low

As shown above, 17 of 80 firms or 21% utilized at least one Web 2.0 activity. Overall 33 Web 2.0 activities were observed among these 17 firms or roughly 2 per firm. 8 of the firm's Web 2.0 presence were deemed to be low impact in its location on the site

and/or the importance to the site. Notably, though, ME buried its peer email forward option, but the idea of customers forwarding information about the firm to other customers is an excellent example of managing word of mouth in the online environment. GD incorporates blogs into its overall communication strategy and with a high-profile location. The execution of the blog, however, was poor, as multiple errors plagued the posting. But of particular interest to this thesis is the application of Web 2.0 activities to the firms' stated export barriers and in comparison to the firm's website performance in terms of the three noteworthy criteria; customer interactivity, marketing interactivity (both of which include Web 2.0 activity), and site internationalization. Table 19 Summary of Web 2.0 Website Significance and Relevance to Export Barriers presents a judgment summary of Web 2.0 activity and export barriers.

Based on Table 19, it appears the use of Web 2.0 added considerable customer interactivity to the firms' websites. Among the 17 firms using Web 2.0, 12 of the firms enabled the opportunity for a high degree of customer interactivity. This is particularly noteworthy given the 80 firms participating in this research scored a mere 3.2 out of 5 in terms of customer interactivity, which ranked 7<sup>th</sup> of 10 criteria. Likewise, 9 of the 17 firms demonstrated a high use of marketing interactivity in their use of Web 2.0, this in comparison to the 80 firms which managed a 3.3 out of 5 for marketing interactivity in the website evaluations. Thus, for this small segment of the respondents, there are some striking contrasts – the firms embracing Web 2.0 appear to do so with effective preliminary results.



5 of the 17 firms in Table 20 experience high-impact export barriers, and for all five of these firms the Web 2.0 website activity was judged to be a highly effective means of mitigating the barrier. Interactive communication with customers, peer-to-peer communication in host-country language, and using rich technology to enrich promotion to customers and distributors exemplify these activities. While this focuses on internal barriers, it suggests an important opportunity for SMEs to mitigate the challenges of high-impact export barriers.

Table 19  
*Summary of Web 2.0 Website Significance and Relevance to Export Barriers*

Firm	Significance of Web 2.0 to website	Customer Interactivity rating	Marketing Interactivity rating	Firm's perception of export barriers	Category of Barrier	Relevance of Firm's Web 2.0 website activity to Export Barrier
AG	Low	Low	Medium	Medium impact	Internal, communication	Not relevant
Car	Low	High	High	High impact	Internal, communication	High Relevance
GD	Low	Low	Medium	High impact	Internal, communication	High Relevance
GXT	Low	Medium	Low	Medium impact	External, regulatory	Not relevant
GE	Medium	Medium	High	Medium impact	Internal, sales promotion	High Relevance
HC	Low	High	Low	Medium impact	External, regulatory	Not relevant
I3D	Medium	High	High	High impact	Internal, financial	High Relevance
KMAS	Medium	Low	Medium	Medium impact	N/A	
MMI	Medium	High	Medium	Medium impact	N/A	
ME	Low	High	Medium	Medium impact	N/A	
OC	Low	High	High	Low impact	N/A	
PGM	High	High	High	Low impact	N/A	
PI	Medium	High	High	Medium impact	Internal, representation	Relevant
SCHL	Medium	High	High	High impact	External, duty	Relevant
SA	Medium	High	High	Medium impact	Internal, representation	High Relevance
					External, language	High Relevance
					External, regulatory	Relevant
TTC	High	High	High	High impact	External, language	High Relevance
					Internal, research	High Relevance
WWI	Low	High	Medium	Medium impact	Internal, Representation	High Relevance
					External, Language	Relevant

Expanding the discussion beyond Web 2.0 to the use of websites in general, the next section will address how effectively respondents use their websites regarding specific export barriers. Based on Table 8 Export Barrier Frequency, the most frequently-cited barriers were obtaining foreign representation, foreign rules and regulations, communicating with overseas customers, foreign tariffs, currency fluctuations and language, totalling 74 instances of perceived barriers. These barriers were perceived by 49 firms. Table 20 Importance of Website Use for Select Export Barriers estimates the effectiveness of the firm's website in addressing specific barriers based

on the respondent's open-ended comments about the importance of the website for overcoming export barriers. 15 of the 74 cited barriers were not addressed in the responses and were categorized as "No Response". The other 59 cited barriers were addressed to some degree in the responses, and these were used to categorize the perceived importance of the website for addressing the barriers.

Table 20  
*Importance of Website Use for Select Export Barriers*

Barrier	Total Perceived Barriers	Low importance of Website use	Medium importance of Website use	High importance of Website use	No Response
<i>External</i>					
Foreign Regulations	16	13	3		0
Tariffs	10	5			5
Language	9	6		3	
Currency	9	6			3
<i>Internal</i>					
Communication	11	2	1	6	2
Foreign Representation	19	4	5	5	5
Total	74	36	9	14	15

As could be expected, some firms make considerable use of websites to address communication and representation barriers. However, the most striking element of website use in this regard is the apparent under-utilization of websites to support communication and managing foreign representation. Websites were deemed to have at least moderate importance in addressing 17 of the 30 cited internal barriers, but this means 13 firms made little to no stated use. Given that foreign representation is one of the most frequent and high impact barriers, this is surprising indeed. 5 of 11 firms perceived the value of websites for communication as either not worth mentioning (2), of low (2) or only moderate importance (1).

The firms' websites were perceived of little use for external barriers. 30 of 44 responses conclude websites are of little importance in addressing the four cited export barriers. This includes 6 of the 9 firms noting language barriers. Of interest though are the experiences of firms using their sites, inclusive of Web 2.0 activities above, in mitigating internal and external barriers. This may not be captured in Table 20 because the tables do not compare the exact same respondents. In other words, ten of the seventeen firms identifying Web 2.0 activity are captured among the firms identifying barriers above, but the other seven do not identify export barriers. This suggests an interesting option for further analysis to be explored statistically in the next section.

#### **4.3 Internet Use and Online Business Networks**

While not based on qualitative data derived from the survey, relevant to the respondents' Internet use is their online network presence. Collected as a gauge of this presence to serve as another input to understanding the firm's Internet activity, data for each firm's LinkedIn presence was gathered and analyzed.

As summarized in Table 21 Respondents' LinkedIn Intensity, on average the respondents had about 10 employees LinkedIn, and these LinkedIn employees have an average total of about 50 connections or 4.5 connections per LinkedIn employee. Nineteen companies or 23% have no employees LinkedIn, and twenty-one have no connections (i.e. there are two firms with employees LinkedIn but as yet have no connections). The majority of firms (48 of 83 or 58%) have 1-10 employees LinkedIn

and 45 firms or 54% have 1-50 total connections. Complete LinkedIn data is available in Appendix 13 LinkedIn Intensity Data.

It appears that, consistent with the qualitative data about Web 2.0 adoption, only a small percentage of these firms are significant users of online business networks. However, the significance of online networks regarding export barriers and export performance will be tested statistically using path analysis shortly.

Table 21  
*Respondents' LinkedIn Intensity*

Number of LinkedIn Employees	%	Range	Number of LinkedIn Connections	%
19	22.9	0	21	25.3
48	57.8	1-10	26	31.3
9	10.8	11-50	19	22.9
2	2.4	51-100	6	7.2
2	2.4	101-500	6	7.2
0	0.0	501+	2	2.4
3	3.6	Missing	3	3.6
83	100.0	Total	83	100.0
10.3		Average	49.3	
0		Min	0	
166		Max	8500	

In conclusion, the respondents included in this thesis are experienced, committed, exporter owner/managers with a strong export orientation. They encounter multiple export barriers, generally of a marketing or EXTERNAL nature, and these barriers range from high impact to low impact intensity. Many respondents indicate the Internet is important for export, and helps address some of the barriers they face. Yet, upon investigation, the use of websites appears to be clearly underutilized as demonstrated by the website evaluation results, and open-ended responses suggest

many dimensions of the Internet are underutilized as well. While there were some indications of Web 2.0 usage, this was not a widespread practice. For example, only slightly more than half of the respondents have at least some employees LinkedIn.

#### **4.4 Interview Responses**

Nine companies participated in interviews. A summary of the companies is provided in Table 22 Overview of Interview Respondents' Companies and of the respondents themselves in Table 23 Overview of Interview Respondents. The firms represent manufacturing, technology, giftware, agribusiness, marine and software industries. Three firms are micro businesses with only five employees while another three firms have over one hundred employees each. Company BDC is quite small indeed, with only \$250,000 in revenues and \$225,000 in export revenues. This makes a considerable contrast to Company DD, which generates \$17,500,000 in revenues and almost the same in export revenues. Given this diversity, averages may not be entirely representative of the respondents but are provided nonetheless. All of the firms have extensive export experience, ranging from a low of eight years to a high of thirty-six years. The firms have been quite active in the United States as is consistent with the profile of all survey respondents and indeed most Canadian exporters. However, there is considerable activity in other export markets such as Mexico, Japan, Europe and the Americas. Furthermore, the firms indicate activity pursuing other markets as future sources of export revenue. All the firms generate export revenues of at least 14% of total revenues, and five firms derive 87% or more of total revenues from export sales. Thus, these are experienced, export intensive firms in good position to contribute to this research.

The respondents themselves provide a range of experience as well. Three participants held ownership in their firms, four maintained executive positions and all were directly involved in and/or oversee export activity in their firms. While five respondents had over ten years' experience at the firm three people indicated they had

Table 22  
*Overview of Interview Respondents' Companies*

Company	Industry	Revenues	Employees	Years Exporting	Export Market Experience	Export Sales	Export Intensity
BDC	Giftware and Crafts	\$250,000	5	8	United States	\$225,000	90%
DD	Software	\$17,500,000	145	26	5 counties including the United States, Mexico, Japan, Brazil and Singapore and actively pursuing 62 others	\$16,600,000	95%
HB	Marine Manufacturing	\$1,500,000	5	9	United States	\$375,000	25%
I3D	Technical Equipment Manufacturing	\$17,500,000	100	11	2 countries including the United States and Mexico and actively pursuing 5 others	\$17,000,000	97%
MFFF	Agribusiness Producer	\$17,500,000	85	21	13 countries including the United States, Mexico, and the Americas. Actively pursuing 22 others	\$2,500,000	14%
MMI	Marine Manufacturing	\$7,500,000	15	22	3 countries including the United States, United Kingdom, Greenland and actively pursuing 14 others	\$6,500,000	87%
MTM	Equipment Manufacturing	\$7,500,000	15	31	30 countries including the United States, Mexico, Japan, and in Africa, the Middle East and South America and actively pursuing 2 others	\$2,500,000	33%
ODG	Equipment Manufacturing	\$22,500,000	100	36	United States and Europe	\$14,600,000	65%
QSI	Technology	\$1,500,000	5	18	United States, Europe, Asia and other markets around the world	\$1,300,000	87%
Average		\$10,360,000	53	20		\$6,850,000	66%

worked in export at the company for two years or less. This represents an interesting range of veteran experience with the newcomer's perspective, as well as the small business owner with the growing firm export staff person. Collectively, the

respondents bring over seventy-five years of business experience and approximately 60 years of export experience.

This is the aggregate view of the data provided by respondents, a summary of information emerging from a selection of Canadian SME exporters. The next section,

Table 23  
*Overview of Interview Respondents*

Company	Respondent	Years' Experience with Company	Years of Export Experience
BDC	Founder and Owner	13	8
DD	Vice President of Marketing and Product Management	1	1
HB	Owner and President	12	9
I3D	Founder, Partner and Director of Product Support and Service	20	11
MFFF	Sales Manager	11	11
MMI	Sales/Marketing Employee	4	4
MTM	Export Sales Specialist	14	14
ODG	Marketing Coordinator	2	2
QSI	Marketing Director	1	1
Average		8.7 years	6.8 years

Chapter Five, presents an analysis of the data. This analysis will involve qualitative and quantitative approach, utilizing the information presented in Chapter Four to generate insight about the use of the Internet and websites to overcome export barriers.

## Chapter Five – Analysis

The data summarized in Chapter Four will now be analyzed using qualitative and quantitative techniques. Section 5.1 will present an analysis of the interview data. Section 5.2 expands this analysis, integrating firms into groups using interview, survey and website data. Sections 5.3, 5.4 and 5.5 will present integrated findings based on an overall analysis. These findings integrate quantitative and qualitative analysis and lead to the general discussion in Chapter Six. The structure of the chapter is presented in Figure 7 Overview of Chapter Five below:

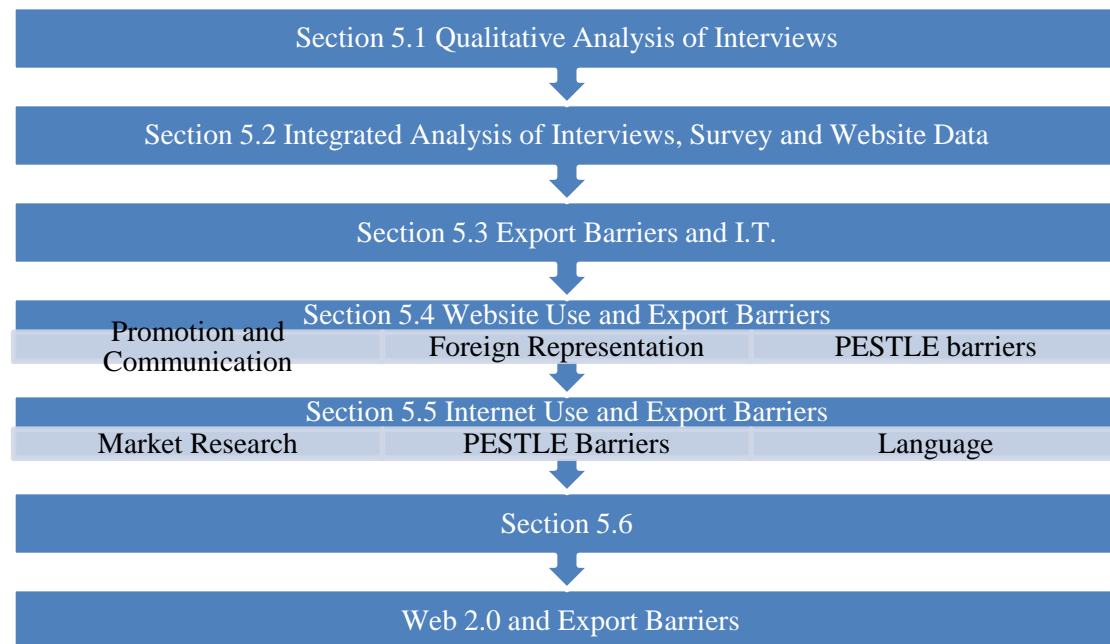


Figure 7. Overview of Chapter Five

### 5.1. Qualitative Analysis of Interviews

#### 5.1.1 Overview of Interviews

As presented in Chapter Four Section 4.4, nine companies participated in interviews. Ranging from several micro businesses in the giftware, marine manufacturing and technology to larger firms with over 100 employees in the agri-business, software and



technical equipment manufacturing industries, the firms share at least one common factor – export. On average the firms generate over 50% of revenues from export markets. While the United States is the common destination, these firms conduct business in markets throughout the world. Just as the companies demonstrated industry and export variations so too did the respondents. Three participants held ownership in their firms, four maintained executive positions and all were directly involved in and/or oversee export activity in their firms. While five respondents had over ten years' experience at the firm, three people indicated they had worked in export at the company for two years or less. This represents an interesting range of veteran experience with the newcomer's perspective, as well as the small business owner with the growing firm export staff person. Collectively, the respondents bring over seventy-five years of business experience and approximately 60 years of export experience.

The interview participants responded to a set of semi-structured of questions. The interviews were conducted by telephone as the respondents were distributed across Canada. The interviews varied in length; the longest was fifty minutes and the shortest was ten. Once recorded, the interviews were transcribed.

To analyze the responses the data will be reduced and displayed consistent with the advice offered by Miles and Huberman (1994). As a structure for this analysis the data reduction will follow the factors presented in *Figure 4. Qualitative Model of the Role of Internet Strategy for SME Exporters*. The first key factor of this model is the organizational perspective, including the export strategy employed by the firm with any corresponding export barriers, the role of the owner/manager (respondent), and

the resource implications. The second key factor is the firm's online strategy, including Internet use, website development and use of Web 2.0. The analysis will start with the presentation of data pertaining to the organization.

#### 5.1.2 Presentation of Interview Data

Interview respondents provided information about their firm's export strategy, export barriers resulting from that strategy, their own role in support exports and utilizing the web, as well as resource challenges. A summary of the key responses is presented in Table 24 Summary of Interview Responses: Organizational Perspective. Eight of the nine firms are engaged in direct exports and two of these have established sales and distribution offices abroad. Six firms utilize the services of foreign agents and/or distributors to support exports, with one firm relying exclusively on these intermediaries. The interviewed firms report both external export barriers and internal marketing barriers in roughly equal amounts. Government regulations/procedures and currency fluctuations were perceived to be generally quite frustrating and uncontrollable, whereas marketing activities like research, promotion and service were a challenge but manageable. These barriers were cited as 'top-of-mind' for the respondent, with little guidance provided by the interviewer. As with the survey responses, the interviewed firms generally cite one or two key barriers, with company MMI indicating it did not face any barriers and DD disclosing six barriers.

Each of the respondents was directly involved in exports as owner, executive and/or manager of the firm's export strategy. Eight of the respondents are active Internet users, four of the nine respondents indicate they are directly involved with website development/management, but only one respondent has direct involvement in Web 2.0 activities. From another point of view, one of nine has little to do with the

Internet in any capacity, many have minimal involvement in their firm's website, and most have little or nothing to do with Web 2.0.

Table 24

*Summary of Interview Responses: Organizational Perspective*

Company	Export Strategy of Responding Firm	Export Barriers Encountered by Responding Firm	Involvement of Respondent in Export and Internet	Attitude of Respondent Towards the Internet	Resource Issues Faced by Responding Firm
BDC	Direct Export	Border issues moving product into U.S.  Exchange rate and currency fluctuations regarding price	Primary export manager and primary Internet and website manager	Internet and Website viewed as important but just part of the firm's overall marketing efforts. Face-to-face marketing is still regarded as key and the primary marketing activity	The owner is "fearless" when it comes to designing and maintaining a website and "giving anything a try", but lacks time and money to really commit
DD	Direct Export, some use of distributors and agents, and significant use of overseas sales and distribution centers with country and regional managers	Getting information about and understanding "the dynamics" of customers and markets  Product customization  After sales service and local maintenance  Selling in different cultures  Language issues  Regulatory issues	Administers direct export personnel and indirect export partners  Actively involved in Internet market and website, noting he "just rolled out a new website". Respondent comes from a "pretty strong technology background and am very involved with the Internet".	References to the Internet as "very good", "absolutely invaluable" and "excellent". As part of respondent's closing comments he indicates "the website is everything".  However, the respondent also indicates the firm has not used Web 2.0 options because his customer base is "not active in social media" and that the Internet needs to be used in conjunction with offline activities or the "feed on the street"	"I don't really find any challenges" though it is "time consuming" and "you've got language issues"  Some of the time issue relates to finding time during a busy work day, but some of the issue relates to updating web material fast enough to keep up with new product releases  Utilize a content management system and development web material "in house"  Contracted with a media house to produce web materials
HB	Direct Exports	Attracting working capital	Directly linked to export process  The owner is at arm's distance from most online activity including using the Internet. While some Internet activity is completed by all five members of the firm, website development and management is looked after by a "web master" with input from the owner's son. And he indicates "Oh yes, my son has put a few of our products on Facebook. That is the only one that I believe we have used."	The respondent describes the Internet and website as having "helped to market our product internationally" and present product drawings online (which saves time and money due to reduced travel)  The respondent turned discussion of the Internet to face-to-face marketing regarding product designs and trade shows. Given the comments (next) about "being too busy doing other things" some implicit online vs. offline valuation and prioritization appears evident	Time is the biggest issue. While discussing website enhancement the owner indicates "we will eventually have all of our products up there" but "this does take a little time". Such enhancements are "a big thing for us to do." Regarding expanded use of the Internet and Web 2.0, the owner responded: "I'm too busy doing other things."

I3D	Significant use of agents	Government rules	Oversees network of export contacts  Direct involvement with website development and currently working on language translation, though contract consultants also contribute to website materials by developing product information and managing Google search terms	Some implicit support for the use of the Internet for promotion, e.g. “we deal with Google now for the search engine and we are going to put more money into it and pay for certain words that when people look them up, boom, we will be the first webpage”.  The respondent described their Internet adoption as “just going with the trends I guess”. The closest endorsement of the Internet, website or Web 2.0 was that ‘it’ is “really valuable to us”	Financing Internet activities; “I mean you need to hire someone to do this and who is responsible for this.” The firm hires consultants and applies staff to web-related activities.  Time is raised as a challenge but more related to the timing of adoption of new trends than time scarcity.
MFFF	Direct Exports	Exchange rate and currency fluctuations regarding price  Government certification  Logistics	Responsible for all export sales  General involvement with using Internet but no involvement with Web 2.0. Secretary looks after facebook and twitter activities while Manager responds “I’m not really involved with that part as much”	Regarding the use of the Internet, respondent indicates “it is a wonderful research tool” which is used “extensively”. It enables the firm to share “so much faster” in terms of documents and communication  Website provides “a little bit of information” which “our clients like”  At the same time respondent emphasized the use of trade shows and trade missions as “very helpful” for networking in foreign markets, especially Middle East	The major challenge has been a website overhaul (in progress at time of interview) in which the respondent had some involvement  Lack of familiarity with Web 2.0
MMI	Direct Exports and some use of agents	Nothing specific	Involved with export sales  Internet user but the firm contracts a website development company to look after all development and maintenance. Employees simply “give him the pictures, give him the information, tell him what we want and he goes from there”.	The Internet is “a reality of business” the firm has adopted to some degree e.g. “we just advertise online...we don’t sell online”. The Internet has implications for the firm, “we’re trying to keep our website up at number one because it’s the easiest way for anyone to find us” because it’s “very, very important”.  A website management company takes “care of making sure we’re plugged into the proper spots and whatnot” with only mild enthusiasm and familiarity. And, later indicates “the Facebook page hasn’t been super maintained	Financing is a factor for the firm. “We used to purchase those (Google keywords) but we stopped because unless you are buying a lot of them which we didn’t have in our budget....we have now found it wasn’t worth it to buy anymore”

				so we don't get much out of that it's mostly for our customers they like to go on and look at our new products and whatnot"	
MTM	Direct Exports, some use of Domestic Trading Houses, and frequent use of distributors and agents. The firm maintains overseas sales and distribution offices	Language and the highly technical requirements of the business  Exchange rate and currency fluctuations regarding price	Directly involved with export sales, customer research and relationship management  Hands on use of Internet for gathering information and communication	The Internet has changed the way respondent does business and the industry itself. Referred to as a "very traditional and very paternalistic" industry, the Internet "revolutionized the way we do our business". Strong endorsement, e.g. the information, videos, pictures, etc a firm can distribute on the Internet are "worth a thousand words and it's instantaneous, it's fast, we can get stuff out there like right away"	Attitudinal challenges of a traditional industry adopting new technology
ODG	Direct Exporters, regular use of distributors and some use of agents	Foreign Taxes	"Actively" involved in exporting as the marketing coordinator  Active user of Internet to obtain information, research, communicate and gather website analytic information	Generally strong support as indicated by several comments including "the Internet is a very great tool for businesses to take advantage of" and is "very helpful" and has "helped the communication breach".	The main challenge appears to be administrative, "managing corporate and personal accounts can be challenging"
QSI	Direct Export and some use of distributors	Cultural differences, language and translation and conveying the company message	Actively involved with exporting and all forms of Internet, website and Web 2.0	Very high regard for the role of the Internet. E.g. "Oh for sure! It's been huge!" The impact on the respondent's work and view of the business permeates the response, from Internet use, to website development, to use of Web 2.0	No technical challenges "You know what, technically, no. We're very proficient technically"  Organizational challenges relate to convincing "some of the Board Members who you know are 55+ that these are valid and significant means of communicating the marketing message"  Costs present a mixed situation. On the one hand there is a challenge "keeping everything updated? That's the difficult thing...". Yet the firm appears to have met this challenge "because we use a linkage system in our social media it really enables us to keep costs down."

The respondents can be divided into three main groups. For the first group the interview data suggests three companies regard the overall value of the Internet,

inclusive of their websites and Web 2.0, as quite high. Companies DD, QSI and MTM demonstrate the most enthusiasm for the Internet and associate it as invaluable and transformative. “Absolutely invaluable”, “It’s been huge!” and “revolutionized the way we do our business” are examples of responses that characterize this position. Proactivity and performance optimization permeate the respondents’ attitude towards the Internet. Two of these individuals are quite technically adept and directly involved in implementing the Internet activities. There may be some bias evident in their attitudes – tekkies promoting technology-based strategies; or, there may be evidence of innovative use of creative strategies to overcome resource deficiencies.

Their outlook is quite distinct from another five respondents which form the second group. i3D, BDC, ODG, MMI and MFFF all declare support for the Internet and indicate some use in their export activity. Their experience is positive albeit limited to generally Internet searching and having some familiarity with their website. For this group some other factor qualifies their perspective. Face-to-face interaction trumps the Internet according to the owner of BDC; online activities are a mere support. This position is supported by export sales manager for MFFF, who emphasizes the value of international trade missions and fairs. Some respondents note the nature of the industry explains their position to some degree, though the export sales manager for MTM argues the Internet has not only changed her business but the very traditional, paternalistic industry itself. Still, within this group of five firms, the Internet provides positive progress within a greater context of online/offline activity.

Company HB appears to stand alone as the only member of the third group of respondents. The owner of this business appears to accept the value of the Internet to a degree but places his emphasis on other activities. Any Internet initiatives are delegated and perhaps instigated by others. The Internet helps; but it is not the same as the more important face-to-face marketing that has characterized the history of his business. Given a scarcity of time, this owner will stick with what has worked in the past. To some degree this reflects the reality of his micro business, though companies BDC and QSI find time to adopt and champion online activities.

Time, money and technology knowledge appear to influence some firms more than others. The three Internet adopters do not perceive any particular resource challenges. QSI notes financial demands as more of a reality of doing business than an incremental expenditure. The other six firms, including company HB, note time, money and/or knowledge limitations, and in the case of the two micro businesses HB and BDC, clearly indicate these as a discouraging factor. The difference, though, seems to be that given better resources BDC would implement more Internet activities, whereas HB may be presenting resources as a justification for not wanting to pursue online activity. Committing more time and money is a cost / benefit analysis as any new initiative would be. QSI clearly derives a return from the Internet for the time and money spent; a payoff that relates quite directly to export success. BDC qualifies its return; the Internet is worth some time and money. Arguably, the point is not resource poverty but resource allocation. If BDC perceived more utility from an online strategy, it could and would allocate the resources to make this strategy happen.

There is clearly a difference in the online activity demonstrated by the respondents.

Table 25 Summary of Interview Responses: Internet Use provides an overview of the Internet, website and Web 2.0 data. Internet use varies across the nine firms, but generally firms use it to conduct research of some kind (seven respondents), communicate (six), and promote their firm or products (five). Two of the respondents cite using the Internet to develop and maintain relationships, though this incorporates all website and/or Web 2.0 activities as well.

Table 25  
*Summary of Interview Responses: Internet Use*

	Internet Use	Website Use	Web 2.0 Use
Company			
BDC	Gathering information about border customs issues, trade shows, and organizational customers  Communication with customers	Product display visuals  Communicate basic information about the company  Provide contact information Prominent role in export offering, customized for each market in terms of language and local branding, product variation and price positioning	None
DD	Communicate with regional and country managers  Gather information about customers and market, especially culturally distant markets. Gather information about regulatory issues  Research tool (in combination with a 'feed on the street')	Customer self-service, FAQs and discussion boards on a country by country basis	None, though customers can post "neat little ha ha" moments that help other customers sort out product issues, and, "We do think the extensive use of customer referral (works); we have customer testimonials and the like on our websites"
HB	Local promotion via banner ads on various key sites Communication with customers, government  Market products internationally, though no online advertising – focus is on raising awareness of website link via offline advertising	Product promotion and distribution of product conceptual drawings  A 'counter' to see where all of the 'hits' come from which informs there offline advertising plans	Causal use of Facebook
I3D	Present product conceptual drawings Search engine optimization  General information gathering	Product promotion (combined with search engine optimization) which serves as a 'reference' for people	LinkedIn
MFFF	Communication support for face-to-face Research into clients, certification issues and logistics  Communication	Cultural adaptation and plans to translate content Source of information about product varieties, packaging, history of the company, product use options  Some pages in Spanish	Some use of Facebook and twitter
MMI	Online advertising, search engine optimization and cross-linking to	Linked to Facebook and twitter Product promotion	YouTube and some Facebook activity



MTM	relevant customer/government sites Research into customers and markets, requirements, and accessing corporate information	Product promotion to a ‘worldwide audience’  Customer contact	Looking at YouTube to be able to provide updated information about new products
	Establishing and managing relationships with customers in distant, remote locations		
	Some language translation		
ODG	Dealing with different time zones Obtain information regarding regulations. Research in general is “much easier!”	Product information  Pages are customized for different countries	Facebook “in the developing stages...to provide awareness through word of mouth, gain loyalty and build relationships with customers”  YouTube to provide videos
	The Internet has “helped the communication breach”.		
	Use Google analytics for search engine optimization		
QSI	Gathering information about cultural differences	Interactive Web 2.0 content  Newsletter  Translating website into “four or five different languages”.	Social media initiatives like Facebook, twitter, LinkedIn, Blogging by having customers contribute to online discussions related to product use, and automatically linked to and update Facebook and twitter pages and all linked to generating “Google points”.  Skype to interact with a distributor and/or customer to “create a relationship far more strong than just talking on the phone.”  Working towards developing YouTube material for customers

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Linking these two tables of data together, one obvious point of analysis for this thesis is the efficacy of the Internet regarding the firm’s export barriers. As noted earlier, firms experienced a mix of external and internal barriers. Company BDC experiences external barriers including customer/border issues and currency challenges. The firm’s Internet activity does not address these barriers, though its information searching and website communication activity likely address other marketing barriers which were not cited by the respondent. A similar assessment could be made for company HB – its external barriers are not addressed by the Internet, at least in the way the firm is using the Internet. And, the firm’s product information sharing is addressing other, unstated export barriers often experienced by SMEs. Arguably, then, the firm’s omission of citing other export barriers may be because the Internet is

addressing the issues, or, the firm's assessment of the value of the Internet is modest because the firm hasn't and doesn't fully understand its potential. Other firms like DD and QSI appear to directly link their online activity to the export barriers they perceive. While these firms do not cite every export barrier either, their market knowledge gap is specifically addressed by their Internet use, webpage activity and in the case of QSI, its Web 2.0 activity. Given that micro businesses are able to overcome the resource issue, it would appear some firms are more aware of the business applications of the Internet than others and this awareness may drive decisions to utilize these options. This is notable given that each of the firms' survey responses lists exports as 'Important' (2 companies) or 'Very Important' (7) and the Internet as 'Important' (5) or 'Critically Important' (4). Company HB in particular describes the Internet as 'Critically Important', apparently in name more than adoption and application. In comparison to QSI and DD, which both list the Internet as 'Important', there is clearly a large gap of interpretation of implementing an online strategy and relating it to export.

Website evaluations for these companies also provide context for the interview responses. As noted above, marketing challenges including promotion to and communication with international customers are barriers mentioned a total of eleven times. Yet, the firms' website internationalization scores on average a 3 out of 5 with little actual internationalization of the websites completed. In its survey HB indicates its website "helped to market our product internationally" yet a review of its website suggests there is no evidence of internationalization and minimal marketing activity other than featuring some of its products. Company MTM makes references to national contact options but provides no other internationalized content and only basic

product promotion. MFFF describes its website as a source of information about product varieties, packaging, history of the company, and product use options with “some pages in Spanish” and linked to Facebook and twitter. The export information located on the site is token; the site is not set up for foreign customers and there is little to no evidence of website internationalization. There are no pages with Spanish information. The Web 2.0 options exist and demonstrate some activity. The Facebook page has 155 friends and recent activity about customers’ use of products. Twitter posts are followed by 580 followers and shows recent activity. None of the activity on either site demonstrate international or export orientation. And the key export person has little to do with the website or Web 2.0.

This is in contrast to DD which is widely available in three languages, provides an extensive description of its international activities and its management team’s international experience as well as its partners and contact information. Even a micro business like QSI provides international product use, distributor, trade show and shipping information. Both key export personnel are hands on with the Internet.

Lastly, there are really just two responding firms that make genuine use of Web 2.0 for export or at all. Company MMI has developed short promotional videos of its product in use in a variety of settings and posted these to YouTube. In response to this select customers have developed and posted videos of their own to YouTube which the company has linked to from its site. This represents a form of crowd-sourced promotion and testimonial and at no cost to the company. At no cost but certainly to its benefit. Particularly as several company and customer videos are from other countries, the challenge of promotion and culture-crossing is somewhat offset

by these online activities. While QSI is working towards company-produced and customer-produced videos for YouTube, it is leveraging the industry insight of its customers in generating content for its blog, website, twitter feed and Facebook page. Through the use of a coordinated information system, when its customers submit industry blogs its entire online communication system is updated. The company is perceived to support a forum for industry topics, incorporate customer perspectives, communicate, promote, and disseminate information in a timely and multi-dimensional format. This is particularly noteworthy as it is a micro business – resource poverty is not a factor, or, its Internet strategy enables it to overcome this challenge. Certainly these activities address commonly cited export marketing barriers.

Based on an analysis of the interview respondents, an assessment of the firms' responses is summarized in Table 26 Conclusions from Interview Analysis. The main takeaway of this assessment is that SMEs can utilize an online strategy, via multiple though inter-related strategies, to address export barriers. But, six of the nine respondents are underutilizing the export potential of their websites and Web 2.0 based on their current usage.

Table 26  
*Conclusions from Interview Analysis*

Company	Internet Use	Website Use	Web 2.0 Use
BDC	Actively used for export	Underutilized for export	Not used for export
DD	Actively used for export	Actively used for export	Not used for export
HB	Somewhat used for export	Underutilized for export	Underutilized for export
I3D	Actively used for export	Somewhat used for export	Not used for export
MFFF	Actively used for export	Somewhat used for export	Underutilized for export
MMI	Actively used for export	Somewhat used for export	Somewhat used for export
MTM	Actively used for export	Somewhat used for export	Not used for export
ODG	Actively used for export	Actively used for export	Not used for export
QSI	Actively used for export	Actively used for export	Actively used for export

### 5.1.3 Conclusions from qualitative analysis

The theoretical implications of these interviews will be developed in the discussion of Chapter 6. A number of preliminary conclusions emerge, however, from the qualitative analysis of the interview responses. First and foremost, it appears an extensive comparison of owner/manager attitude and awareness, Internet activity and export performance is necessary. Based on the nine respondents, there appear to be several firms that demonstrate proactive use of the Internet for exporting in general and for export barriers in particular. Yet, there are others which are ‘going through the motions’ of participating in a trend, from which they derive some benefits but about which they are not maximizing their opportunity. Company HB appears to demonstrate an ignorant position; an ignorance of not knowing about the advantages of the Internet or ignoring those benefits for some reason. This may well explain the gap between the Internet ‘haves’ and ‘have nots’, a gap that could be attributed to the presence of an ‘export Internet’ champion. Work towards this end is provided in Section 5.2.

Another conclusion to emerge from the interview analysis relates to export barrier perception. Leonidou’s (2004) assessment of barrier type and impact suggest all firms experience to some degree many internal and external barriers. Yet, the survey and interview respondents either do not experience these barriers and/or do not perceive them. To the latter point, respondents may only cite one or two barriers but discuss in their Internet usage various activities like promotion, communication, research and customer service that are high and very high impact challenges. Respondents are addressing these challenges and not realizing it, or the nature of overcoming barriers is just a small part of the larger growth of the firm and focus of

the respondent (Jones, 1999). Weick et al (2005) may be relevant here. Their argument about sensemaking and ‘plausibility rather than accuracy’ may relate to the interview respondent and interviewer. The interviewees bring their own context of what is relevant and prominent about their export and overall company experience. The owner of HB is no less confident of his position about the role of the Internet regarding exports than the executive of another micro business QSI. Their strategies and the sense of those strategies are both plausible to each. While awareness of and attitude about the Internet may distinguish them, confidence in pursuing the best options for success is the working norm for them both. From the interviewer’s perspective, deriving accuracy about export barriers and the role of the Internet is the primary focus. Looking for the role of the Internet regarding exports barriers and ‘stretching those moments’ as Weick et al (2005) describe does not mean the Internet and/or export barriers play a prominent role in the growth of the interviewed firms. Therefore, the perception of export barriers as barriers may well vary firm to firm and not be universally perceived as Leonidou’s (2004) conclusion suggests, and, the actions of firms regarding export barrier type activities may relate to the firm’s overall growth more than export-specific activity. Since the aim of sensemaking is theory building, further qualitative work investigating data and relationships is necessary.

SMEs, then, may perceive export barriers within a broader context. More than just researching foreign markets and gathering information, the firm may undertake a process of learning. The Internet is not just a tool for addressing promotion or communication challenges, it is a medium of customer relationship management. Within this bigger context view of export and Internet activity, some SMEs may be advancing beyond ‘best practice’ mentality towards a focus on generating insight

from their international experience. To this point, the Executive Vice President of DD describes the value of information from the web by indicating it is “really good for telling you what is, but not necessarily why. And that ‘why’ is useful to understand because quite often you are taking the “what is” and you are extrapolating that information”. The respondent continues this point by indicating “you really need to combine the Internet with some sort of feed on the street” to generate real understanding. Of necessity, this understanding must entail research about customers and markets; potentially, however, company DD is establishing knowledge assets that can be leveraged in many ways to support overall company growth.

The potential benefit of full utilization of export and Internet experience suggests opportunities for innovation and performance optimization – developing new ideas and leveraging them fully. From a practical point of view, this means optimizing the firm’s export experience which requires the ability to overcome export barriers. But in terms of organizational utility, a company that optimizes opportunities for effectiveness and efficiency will provide the greatest value to its stakeholders. This likely returns to the link between a ‘champion’s’ attitude/behaviour and the adoption of innovative export and Internet strategies. In other words, the owner/manager who adopts effective export and Internet practices positions the firm to develop knowledge and insight which can be leveraged for optimal performance, elevating the firm beyond mere best practices to a dynamic utility entity.

## **5.2 Integrated Analysis of Interview, Survey and Website Data**

The analysis to this point has utilized primarily qualitative data. The analysis suggests there is a distinction among the respondents regarding their awareness and

perception of value, their online activity/behaviour, and their overall export

performance. To move this analysis forward evidence will be integrated from:

- Interview data
- Open-ended survey question 22 about export barrier type, frequency and perception of impact (qualitative data)
- Open-ended survey question 23 about the perception of Internet utility in addressing the export barriers (qualitative data)
- Open-ended survey question 25 about the role of websites for export and export barriers (qualitative data)
- Scale question 24 about the impact of the Internet regarding exports (quantitative data)
- Website evaluations as a measure of activity/behaviour, useful for comparison to the open-ended questions (qualitative data)
- Web 2.0 data derived from the open-ended questions above and from the Website evaluations (qualitative data)
- Web 2.0 online business network presence derived from LinkedIn as a measure of activity/behaviour, useful for comparison to the open-ended questions (quantitative data)
- Five-year export growth data gathered from Questions 17 as a measure of performance (quantitative data)

Following the advice of Caracelli and Greene (1993), this data permits data consolidation or the joint review of both types of data to create consolidated data for further analysis. The process of consolidating this data included iterative clustering by theme. The first stage involved clustering firms that, based on their open-ended responses and the responses to Question 24, appear to value the Internet versus those that do not. This produce a rather lopsided distribution of firms, as many claimed to have a strong regard for online environment. Only 15 of the 83 respondents show a lack of regard for the Internet, where as 68 are strong advocates of the role of the Internet for their firms. The second stage of clustering assessed the activity/behaviour of the firms, using the open-ended questions regarding use of the Internet, website evaluations, Web 2.0 activity, and LinkedIn online business network data as evidence. Firms were separated into categories of effective, somewhat effective and not effective online activity/behaviour. These two clusters were integrated, yielding a



six-category distribution of firms. The final stage of data consolidation involved comparing the clusters to 5-year export growth data provided in the survey responses.

Respondents indicated their 5-year results by selecting one of the following:

- 1 Export sales have decreased
- 2 Export sales have remained steady
- 3 Export sales have increased slightly
- 4 Exports sales have grown at an increasing rate

For the sake of analysis, firms which experienced slight growth and an increasing rate of growth were grouped together, as were firms which experienced steady or decreasing exports.

Table 27 Integrated Clusters Based on Attitude, Behaviour and 5-yr Export Trends presents the distribution of firms as a result of this analysis. 33 of the 83 firms or 40% strongly value the Internet, demonstrate effective online activity and all experienced export growth. Of the firms that do not value the Internet, only 8 or about 10% experienced growth. Some 20 firms or 24% demonstrate poor online activity yet still achieved export growth.

Thus, the firms participating in this study are a mixed group with considerably different experiences. Their uptake of the Internet for information searching, communication, addressing EXTERNAL barriers, implementing websites, embracing Web 2.0 is inconsistent, as are their export results. However, there is a core group of Internet-savvy firms that appear to employ a generally effective online strategy to address export barriers and achieve export success. This wide distribution of firms invites further investigation to explore the key relationships at work.

Table 27

*Integrated Clusters Based on Attitude, Behaviour and 5-year Export Trends*

Firm Clusters	Export Growth	Export Stagnate or Decline
Firms that strongly value and demonstrate effective use of the Internet	26	7
Firms that strongly value and make some use of the Internet	7	5
Firms that strongly value and demonstrate poor use of the Internet	15	8
<i>Total</i>	<i>48</i>	<i>20</i>
Firms that do not value the Internet but demonstrate effective use	0	1
Firms that do not value the Internet but demonstrate some use	3	1
Firms that do not value the Internet and demonstrate poor use	5	5
<i>Total</i>	<i>8</i>	<i>7</i>

This summary suggests a key contributor to Internet-based export strategy among Canadian SMEs is attitude; an attitude that is based on awareness about and the perception of value towards the utility of the Internet for supporting exports. In the qualitative model developed in Figure 4 Qualitative Model of the Role of Internet Strategy for SME Exporters, the interplay between the development of an Internet strategy and the decision-maker/resources/export strategy elements are separated by IT barriers including management knowledge and commitment. It is increasingly clear from the qualitative data analysis that awareness of the value of the Internet and the perception that the Internet can address export barriers is at the root of the decision to adopt and implement an online strategy. And, this to some degree influences the activity/behaviour evident in online performance of the firm's website, online business network presence, information searching, online communication, etc.

Thus, in addition to the applicability of various Internet and website activities to export barriers, the qualitative analysis produces an important factor related to owners/managers who make decisions about Internet and export strategy and practice. This is constructive to extending the analysis statistically. The next section will do just that – extend the analysis from the primarily qualitative domain to the quantitative domain. Building on the qualitative model in Figure 4 Qualitative Model of the Role of Internet Strategy for SME Exporters and the rationale of Section 2.5 Integrated Model, in combination with the conclusions developed in this section, the analysis will now explore the relationships between the various elements of the model. In particular, the relationship between decision-maker/resources/export strategy and export performance will be assessed for this sample of Canadian SME exporters. The impact of export barriers and IT barriers will also be analyzed. This is the focus of Section 5.3 – 5.6.

### **5.3 Export Barriers and I.T.**

#### **5.3.1 Introduction**

This section of the discussion will focus on two key factors; the use of the Internet to overcome export barriers, and the IT barriers that impede this activity. Support will be drawn from qualitative evidence and references made to the literature where appropriate.

#### **5.3.2 Using the Internet to Overcome Export Barriers**

Overall, respondents in this study appear to experience about 2 barriers each, mostly of moderate to very high impact. As the negative impact of export barriers increases

it appears the firms experienced an increase in the perception of the positive impact of the Internet for promotion and communication, and/or, as the perception of the positive impact of the Internet for promotion and communications increased the perception of the negative impact of export barriers decreased. The barriers do not appear to correlate with specific markets or with the mode of entry used for those markets.

The qualitative evidence supports the applicability of the Internet for promotion and communication. For example, the manager of FFI describes the impact of the Internet for his firm and in doing so his views of the value of the Internet in addressing specific export barriers:

The internet has enabled us to communicate effectively with our customers and international agents, our foreign accountants and lawyers, and foreign government officials...email is our preferred method of communication. The internet has also helped us enormously with international payments and moving currency around the world...The internet has enabled us to grow the way we have internationally.

This demonstrates several key points; the Internet as an appropriate medium for various stakeholders; the Internet as a medium of diverse opportunities for promotion and communication; the Internet as a means to international growth and performance. Some responses suggest the Internet is the dominant medium of communication, both external to its market and internal among employees. The export manager of WBB comments:

We use the Internet for 90% of our communications. It is also used for research for different countries. [The] Internet is very important for getting information about foreign markets, important re: identifying and evaluating customers, important for new product development, important for customizing export promotion, very important for contacting customers and maintaining ongoing communication, very

important for offering after sales service, and very important for accessing foreign channels...The Internet is used for internal communications, training and understanding different foreign attitudes/habits

However, the respondents in this study have mixed experiences. While the above respondent demonstrates success, many firms indicate mixed feelings;

Yes and no. Internet is a good way to stay in touch and gather information. It does not offer a solution; that comes from a willingness of both parties to continue provided it can be profitable in the long term. (Senior Executive, IV)

Somewhat for fast communications. Still need personal contact (Export Manager, MFFF)

Not very important. All it does is list the products we offer in an industry accepted format (Senior Executive, ABSF)

One firm indicated communicating with customers was its chief export barrier and then went on to address the value of the Internet regarding this barrier by concluding, "Not really...except that we deliver our product thru internet, which has global capability" (Founder and Senior Executive, GD). Based on these responses it appears the mixed responses, or in some cases outright dismissal of the Internet, comes from a lack of understanding of the role of or a poor experience implementing an Internet strategy. Given the success that other small firms have had it appears the above respondents are missing something.

Integration of online activities into the firm's overall marketing plan emerges as a theme for some of the SMEs in this study. Some respondents, such as the founder of AL, appear to weave online and offline thrusts:

Most if not all of our export related sales come from direct communications with our foreign clients which we have developed through the internet, trade shows and international technical journals

advertising as well as through our attending technical conferences where we present our technology

A final theme emerging from the open-ended analysis is owner/management attitude.

The attitude is in some cases shaped by awareness of various Internet activities.

Attitude also appears to be shaped by owner/manager's perception of value. Does the Internet deliver returns? Is it worth my time and investment? Characteristic of this line of thinking, the owner and manager of TTC noted:

I have had and still having immense problems communicating with customers around the world. Due to our service teaching English to students who don't know the language very well makes it difficult for us to close the sale. Once we get bigger I would like to employ translators and contacts in countries that can deal with these clients and help sell our services (i.e. Russia). Market research is very difficult, well not so much difficult but rather time consuming because my potential market is anywhere and yet at the same time everywhere making it difficult at this point in the juncture to focus on any particular market until I get more sales from particular markets

In addition to using the Internet to reach out to markets, this study also examined the use of websites to overcome export barriers. Based on the open-ended questions and website evaluations, 33 of the 83 firms demonstrate average to strong Internet behaviour and these firms experienced export growth. Common to all these firms, evident in their open-ended responses, was an awareness of the potential benefits of the Internet and a view that these benefits were valuable. Another 23 firms also demonstrated this attitude, but did not provide evidence of good Internet performance. Thus, attitude and performance appear to be linked.

An interesting relationship based on new directions in the Internet was evident in the link between a Web 2.0 and export performance. Market research is a high-impact barrier that appears to be well-served by the Internet. This

appeared frequently in the open-ended responses, including a Senior Executive at CHCO who compared the barriers to the utility of the Internet:

[List of barriers] Lack of technical knowledge of relevant science - marketing barriers (slight, and only in the beginning) include getting information about foreign markets, identifying and evaluating foreign customers, contacting foreign customers, [and] complexity of foreign channels. Internet is used for: marketing -- getting information about foreign markets (very important), identifying and evaluating foreign customers (very important), offering satisfactory prices, contacting foreign customers(important), offering after sales service(important), ongoing communication(important), and accessing foreign channels(important).

As firms experience frustration using the Internet for market research, their use of online business networks appears to increase. Or, in other words, when their own methods fail to produce results, SMEs may draw on their network of peers for help. In this case, the network is a growing number of peers online. While used by some as a career aid, businesses use this online network to access information and people in their target market. As market research is a high-impact barrier, the use of this online resource to gather information about foreign customers, markets, regulations appears to be an interesting and emerging opportunity. The literature for small firms notes the importance of networks. Coviello and McAuley (1999), Chetty and Blankenburg Holm (2000), Loane et al (2004) among others have found links between the importance of networks and internationalization. Given limited resources, Loane and Bell (2006) conclude small firms are “seen as being embedded in a series of relationships with external parties” (474). The authors find small firms have to build new networks to internationalize. Thus, accessing information about, initiating and developing contact with, these networks represents an important utility offered by an online network. Theoretically,

such a network could mitigate the impact of researching foreign markets and lead a firm to higher exports.

The sum of the discussion thus far suggests there is qualitative evidence to suggest for the SMEs participating in this study the Internet does address export barriers at least to some degree. One common challenge for SMEs is the presence of IT barriers. This will be the focus on the next section of the discussion.

### 5.3.3 The Impact of IT Barriers

As evidenced by Table 28 Main Barriers to More Proactive Use of the Internet below, there are certainly firms that report the existence of IT barriers.

Table 28  
*Main Barriers to More Proactive Use of the Internet*

Options	Not a barrier	Barrier	Considerable barrier	Rating Average	Response Count
High costs to initiate	58	16	4	1.31	78
High costs to maintain	54	18	6	1.38	78
Lack of I.T. /web skills amongst employees	40	30	9	1.61	79
Lack of management commitment	57	18	3	1.31	78
Poor results	54	20	5	1.38	79
Customer resistance	62	12	4	1.26	78
Supplier resistance	67	7	4	1.19	78
Difficulty getting good external advice	59	19	0	1.24	78
Difficulty finding a web design company	69	9	0	1.12	78
Concerns re: security problems	54	18	7	1.41	79
Concerns re: fraud	57	14	7	1.36	78
Not appropriate for business	59	8	5	1.25	72

In each case, however, more than half of reporting firms indicate the items above are not barriers, and generally only 10% or less indicate the item is a “considerable barrier”. This section of the discussion will consider the impact of IT barriers



The literature generally confirms SMEs face unique challenges with IT adoption and implementation. Thong (1999), Tiessen et al (2001), Rosson (2000), Locke and Cave (2002), Elsammani et al (2004) typify this position. These authors agree that time, costs and lack of expertise represent particular challenges for small firms. For example, Hornby et al (2002) note the “SMEs have traditionally faced a number of barriers to adoption of electronic commerce” (214)

The SMEs in this study appear to indicate that traditional IT barriers are not impeding adoption and implementation. Costs are an often-cited barrier. For the 20-25% of respondents who cite it as a barrier, the following comments, about search engine optimization, may be representative:

it is very important but unfortunately dated and costly to maintain. Keeping it in the first page of Google and other search engines is a never ending exercise that is expansive. Further the content and format of the site needs constant change which we are not unfortunately doing at a rate I see as beneficial. We would do more but budget constraints due to a poor sales environment have forced us to delay implementing these changes at the rate I would prefer. (Founder, AL)

However, the majority of respondents appear to have changed their position on the costliness of maintaining an Internet strategy. For example, one respondent commented:

Our best, most cost effective form of US marketing is internet sites.  
i.e. based on available budget (Owner, TD)

It allows clients/potential clients immediate access to current product available, saves time and cost in printed promotional material (Owner and Manager, ME)

It appears SME owner/managers are evaluating the costliness of adopting and using IT relative to general operating costs, and/or, in the context of demonstrable benefits.

The most pressing IT barrier cited by respondents is the lack of IT/web skills amongst employees. Almost half of respondents indicate this is a barrier or considerable barrier and it represents about double the frequency and intensity of the other individual barriers. Yet, the qualitative data provides no mention whatsoever of online restrictions due to lack of IT/web skills. Qualitative data provides no references to the challenge of developing and maintaining websites. However, as developed later in the chapter, the evaluations of websites vary considerably, raising questions about the web skills present in responding firms.

Arguably, then, as firms mitigate the impact of the IT hurdle they are able to dedicate time to using online networks. Both of these developments would represent a shift for SMEs; the first in the resource status of small firms and perhaps a levelling of the IT playing field; the second as an electronic means of utilizing networks.

Having considered several key elements of export barriers and I.T., the analysis will now consider the role of the Internet for export in general. Further to the analysis completed in the Chapter Four, several export barriers emerge as particularly relevant to the firms participating in this study. Promotion and communication, foreign representation, foreign regulations, language, tariffs and the impact of foreign exchange movements are the barriers most frequently cited by firms. As such, the discussion of this chapter will focus on the impact of websites and the Internet regarding these barriers.

## **5.4 General Findings about Website Use and Export Barriers**

Qualitative data and website evaluation data lead to several key findings about the websites and export barriers. Effective websites enable SMEs to mitigate internal export marketing barriers towards achieving export success. Specifically, the companies in this research project demonstrate export barriers such as promotion, communication, and foreign representation can be mitigated by effective websites. The next section will consider qualitative support from the open-ended survey questions and quantitative and observation evidence from the website evaluations in exploring the role of websites regarding export barriers.

### **5.4.1 Promotion and Communication**

It is clear from reviewing the participants' websites that product promotion is the most frequently observed element. 51 of the 80 sites demonstrate a strong product orientation, including some sort of technical download. In some cases companies use advanced technology to create an interactive experience for site visitors, including virtual product customization. Survey respondents emphasize the importance of promotion in their open-ended responses. Typical of this position, firms indicate their websites are central to their promotion strategy.

It is the prime method for promoting our solution to markets outside of Canada (Senior Executive, MX)

I would say 95%+ of our inquiries come from our website and they come from all over the world. Without the Internet I really do not know how we could reach a worldwide market. (Owner and Senior Executive, TWTI)

Even for firms with highly technical equipment, websites offer customers and other users an important resource:

Our specialized equipment requires expertise to operate and maintain. International sales require existing experts in that market, sending someone to the country to train people or maintaining the equipment ourselves. Also, communicating to and educating international markets about our technologies is a challenge. We use satellite telemetry and the internet to optimize our equipment remotely. Our website and e-newsletters keep people world-wide informed about our products and new developments. (Founder and Senior Executive, GE)

There were certainly respondents who indicate the websites are of little to no significance. Some explain this by virtue of their industry or strategy. For example,

We are a niche marketer of custom products, and our sales prospects appear to us more as a 'pull' than 'push'. The website tells our tale and positions us effectively with clients who have come to us as referrals (Owner and Senior Executive, SE)

Further analysis by industry may address this component, though interview data from company MTM indicates the Internet 'revolutionized' their 'traditional' and 'paternalistic' industry. In other words, industry does not appear to predict Internet and website use or usefulness.

The evidence from website evaluations suggests there are certainly firms that make extensive and effective use of their websites for promotion. 31 of the 80 firms evaluated scored a 4 or 5 out of 5, demonstrating effective promotion activity on their sites. However 49 firms scored a 1, 2 or 3. With an overall average score of 3.3 out of 5, the promotion activities of these SMEs are quite mixed.

Besides general product/service promotion, SMEs appear to use their websites to communicate in general to their many stakeholders. According to the respondents in this study, communication is an important element of their websites. Whether by posting general company information, news, upcoming events, translated material or

hosting an online forum, the SMES in this study make at least some use of websites to communicate. In their responses, owners and managers mention the following:

Our website is the primary media or communication element of our marketing plan. We gain in excess of 90% of our customers from initial web site hits (Senior Executive, PPI)

Very important, [industry deleted] activities [t]end to occur in remote regions and the internet is the vital communication link for sales and technical support (Founder and Owner, WWI)

The communication cited by respondents is more than one-way. For customers and foreign representatives, the websites of SMEs provide an opportunity to engage in two-way contact.

It is important and will become more so as we unveil a new, improved website in the next few weeks. Critical as it aids our customers in finding us and communicating with us (Export Manager, MTM)

Our website is where we receive the results of our [service deleted], where our customers can access their results, where we train our agents. Our website is critically important in supporting our exports. (Senior Executive, FFI)

Communication effectiveness was not of itself measured as a unique variable in the website evaluations. However, communication activities were observed in both the Marketing Interactivity criterion and the Customer Interactivity criterion. As noted above the SMEs in this study earned on average a 3.3 for the former; for customer interactivity the average result was 3.2. So, while some survey responses suggest communication is regarded as an important activity, the performance of firms' websites suggests only a portion of the firms are delivering.

#### 5.4.2 Foreign Representation

Obtaining agents and distributors in foreign markets is an often-cited challenge for exporters. Leonidou (2004) concludes this is a high-impact barrier based on the 32

studies he synthesized. The respondents in this research project offer support for this position. Foreign representation was the most cited barrier by survey respondents. Noting the “difficulty to identify the ideal channel partners, who are fully dedicated”, one respondent indicated websites are a “great tool to get international exposure and to generate potential channel partners” and that “it's the first point of contact for international leads/channel partners”. Representative of this position is the following:

In the past ... sales outside North America were much more dependent on the building of relationships and had longer lead times before the initial sale. Unless you had ample funds and ability to build those relationships progress was slow. ... With regards to our current situation things have changed dramatically. Export markets are increasing and retailers and distributors are seeking us out directly. This is a result of many factors. Attitude towards [product] overseas is changing rapidly and in many cases has surpassed those of North America. The \$US has dropped significantly making product more affordable to overseas markets. The internet has made communication much easier. Overseas retailers and distributors are able to find our product easily on the web and seek us out directly. (Founder and Owner, M)

In addition to identifying the frequency of barriers, respondents note the intensity. As indicated above, respondents provide evidence supporting the view that the Internet and websites address this barrier. For example:

... Internet searches of potential customers provide some very good information. Internet is excellent for market research (President, SI)

Very, as it's the first point of contact for international leads/channel partners (Manager, PI)

One respondent reflects on the relevance of his website regarding the challenge of finding distributors:

It is very important. Our web site is available in different languages and is the best place for our distributors to keep them up to date on

what is happening worldwide, to have access to marketing material for free, to get information on our products, etc (Anonymous, SA)

Even for distinct markets like the military, websites appear to be relevant to SMEs:

Military sales in foreign countries require a local agent and it has been difficult identifying them. In addition, the commercial space is helped significantly by local partners and once again, they are difficult to identify and attract. Several agents and distributors have contacted [name deleted] directly based on viewing the [name deleted] web site. It is the prime method for promoting our solution to markets outside of Canada (Senior Executive, MX)

Upon examination of these firms' websites, 17 provide information specifically addressing foreign distributors. While many firms are not, the observation data suggests firms can use websites to address this barrier. This qualitative data suggests the use is significant and that Internet use can address and mitigate the impact of foreign representation barriers.

#### 5.4.3 External Barriers

External barriers appear to receive less attention among the respondents of this study. Respondents in the open-ended questions generally do not identify their websites as useful in addressing external barriers like foreign regulations, tariffs, etc. Only six firms of 80 are linked to addressing in any meaningful way these external barriers.

Typical of this view, respondents below express doubt about the utility of websites for addressing certain barriers. For example, regarding language barriers, one firm indicated its website is "Not very important. All it does is list the products we offer in an industry accepted format". A Senior Executive at DDT describes tariff barriers and then discusses its website as a sales tool:

Import duties and taxes for our American customers -- they still seem surprised by the customs and duties bills they receive regarding their

imported goods as purchased from us and we must constantly reiterate that it is the US government that is the initiator of these fees and that it is worth it to buy our product when the taxes must be added.  
[Regarding its website] Not terribly important. Once in a blue moon do we receive an inquiry from a new customer who references the website.

While firms appear to use the Internet to address these barriers (discussed in the next section), they do not report using websites.

The website evaluations in general substantiate this finding that websites are not typically used to address external barriers. Though not evaluated as a standalone criterion, the process of evaluating websites did address external barriers like language, content about foreign regulations or currency in the website internationalization criterion. As already reported, this was the lowest-ranked criterion of the ten evaluated. Firms averaged 2.6 out of 5 for website internationalization, with 40 of the 80 firms scoring only 1 or 2 out of five. This indicates firms are not generally using their websites to address external barriers. Leonidou (2004) categorizes six of these barriers including foreign currency risks and foreign regulations among his high impact classification.

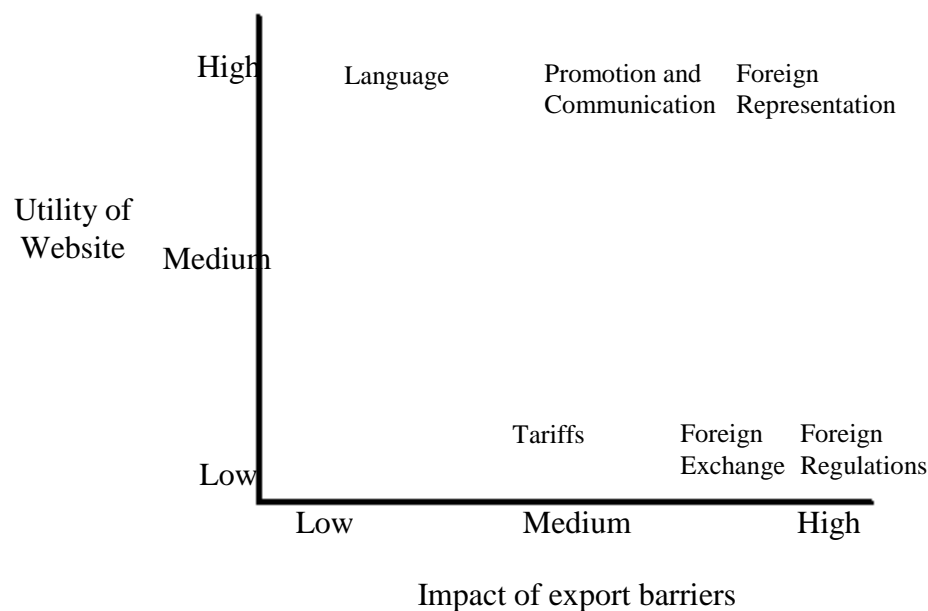
Language capability was deemed to be generally quite low. While 22 firms made at least some use of foreign language on their sites, 60 of the 83 survey respondents cite markets in Europe, Asia and the rest of the world that clearly would benefit from foreign language capability.

The average website practices of these SMEs suggest little applicability to external barriers. However, evidence was found of activities that do mitigate these barriers. Online translation sites were utilized by firms lacking formal language capability.



Peer forums, email alerts, industry links, blogs and e-newsletters were observed in small samples applied to gathering and distributing information about industry challenges involving foreign regulations, tariffs, and currency fluctuations. The advent of Web 2.0 appear to present an opportunity to utilize the knowledge and experience of customers, intermediaries, regulators, partners and other relevant stakeholders in the supply chain.

The open-ended responses and website evaluations demonstrate several key findings regarding websites and export barriers. In general the websites of the SME exporters of this study are regarded as important by the owner/managers. Respondents view websites as important to marketing activities in general and export in particular. The performance of these sites, however, tends to be fair at best and in many cases poor. Firms score low on website internationalization and just average on marketing and customer orientation. In terms of addressing specific export barriers, firms tend to perform better on marketing-related barriers than external barriers, but in most cases firms are underutilizing their sites. As IT barriers are not a major impediment according to respondents, it appears firms are missing opportunities of leveraging an online presence. This seems particularly evident given the strong performance of a core of firms, some of which are successfully implementing Web 2.0 activities specific to export objectives. As a concluding summary, the utility of websites for selected export barriers is featured in Figure 8: Utility of Websites for Selected Export Barriers.



*Figure 8.* Utility of Websites for Selected Export Barriers

### 5.5 General Findings about Internet Use and Export Barriers

Effective Internet use enables SMEs to mitigate internal and external export barriers towards achieving export success. Specifically, all of the featured export barriers including promotion, communication, and foreign representation, foreign regulations and tariffs, currency fluctuations and language can be mitigated by the Internet. Interestingly, though, 20 firms indicate the Internet does not address their internal and/or external export barriers. The next section will consider qualitative support from the open-ended survey questions and quantitative and observation evidence from the website evaluations in exploring the role of the Internet regarding export barriers. This section of the discussion will address market research and external barriers.

#### 5.5.1 Market Research

The first three export barriers listed by Leonidou (2004) and classified as very high impact all relate to market research. Qualitative support for the attitude about and use of the Internet is evident in the open-ended responses. 52 of 82 respondents to the

open-ended survey questions note at least some use of the Internet for market research. It appears the Internet mitigates the impact of export barriers at least to some degree. For example, one respondent demonstrates the significance of the Internet by identifying the many uses of the Internet for his/her firm and qualifies each use with the perceived importance of the Internet for that use:

We use the Internet to identify and evaluate customers (important), customize export products (important), contact foreign customers and provide ongoing communication and after sales service (important), access foreign channels via agents/distributors (very important) We use the Internet to grant credit to customers (very important), arrange payment (important), and collect payment (very important) We use the Internet for order taking (very important), purchasing (very important), order/shipping tracking (moderately important), export documentation (home)(slightly important) and export documentation (host)(slightly important), and re: transportation costs (moderately important)  
(Anonymous)

Given the very high impact of market research export barriers, this SME appears to make widespread and relevant use. The manager of CAR goes further, making a comparative statement of the value of the Internet relative to other market research activities:

The Internet helps our customers find us and communicate with us from wherever! We make a concerted effort to ensure that Internet searching will guide our customers to our websites. Also, the Internet is our most valuable tool in conducting market research

Observation data from website evaluations also supports the view that market research and foreign representation barriers can be addressed by a firm's online presence. 24 of the 80 firms do some type of needs assessment, in some cases an extensive inquiry into a prospective customer's product needs.

Web 2.0 presents special opportunities for gathering information about markets. Website-based activities involving peer-generated information have already been

considered. It appears from open-ended comments that SMEs make some use of networks, such as peer forwarding, industry forums, RSS feeds and online networks. This research utilized online business networks (i.e. LinkedIn) as a path variable. There was no reference to this activity in the open-ended responses, though the data about LinkedIn participation was collected (in some cases) as long as eighteen months after the surveys. Given the recent emergence of LinkedIn and other online business networks it is not surprising survey responses contained little to no reference to them. But among the firms' website evaluations it appears the Web 2.0 activities mentioned above provide SMEs with potentially widespread access to the ideas of (potential) customers, their needs/wants, segment and cultural norms regarding communication, and opportunities to test market new and existing products for foreign markets. Granted, foreign language markets would require access to language competency and/or bilingual participants. However, coupled with other online information gathering initiatives, it appears the SMEs of this group of respondents regard the Internet as a valuable aid in market research, use it in some cases relatively well, and this use influences export performance.

#### 5.5.2 External Barriers – Foreign Regulations, Tariffs and Currency Fluctuations

External barriers represented half of the barriers identified by the firms included in this study. Foreign regulations, language, currency fluctuations and foreign tariffs were the most prominent external barriers emerging from the open-ended responses and are the focus of this section.

External barriers are for the most part less controllable by the firm. Government regulations, currency movement, and foreign culture exist beyond the purview of

owners and managers. Thus, Internet use is directed towards mitigating the negative impact and leveraging the positive opportunities presented by these forces. To this end, respondents cite using the Internet to gather information about external forces and then act in response. For example,

It has helped in every way -- particularly in communications with customers which is must more reliable and cost effective with the internet. Easier for us and for our customers. It also greatly facilitates meeting any foreign customs/clearance issues in a quick and accurate manner (Export Manager, MTM)

The internet has enabled us to communicate effectively with our customers and international agents, our foreign accountants and lawyers, and foreign government officials. Online we prepare and file required information returns and taxes where available. Email is our preferred method of communication. The internet has also helped us enormously with international payments and moving currency around the world. Our bank is present in 82 countries and has advanced internet capabilities and security. We have learned from them and they have learned from us. The internet has enabled us to grow the way we have internationally. (Senior Executive, FFI)

Foreign regulations are the biggest hurdle. We do not see any initiative from our government to help in removing these barriers. Where ever we have achieved success id sue to our ability to work with local agents and government departments to get approval for Canadian products to gain entry into the market. If our government would work closely with foreign government departments it would reduce "red tape". All communications are conducted over the net. We use email, VOIP, and IM tools to conduct cost effective communications (Founder and Owner, GXT)

Yes with the new USA legislation on crossing the border  
Yes, ALL forms are now handled using the net...much much faster  
(Owner, HB)

Gathering information, completing requirements, and acting in a timely fashion to overcome external barriers appear to be important themes for the SMEs in this study. However, the firms cite limits to the ability of the Internet to mitigate these barriers.

Yes, numerous difficulties. EU regulations and tax barriers. Control by government on alcohol based beverages. Foreign exchange fluctuations, etc. [The] Internet is a good way to stay in touch and

gather information. It does not offer a solution; that comes from a willingness of both parties to continue provided it can be profitable in the long term. (Senior Executive, IV)

Import duties and taxes for our American customers -- they still seem surprised by the customs and duties bills they receive regarding their imported goods as purchased from us and we must constantly reiterate that it is the US government that is the initiator of these fees and that it is worth it to buy our product when the taxes must be added (Senior Executive, DDT)

Thus, consistent with market research, the Internet makes information searching easier and more effective, and, communication with relevant stakeholders like government agents, financial advisers and consultants timelier. Section 5.6 will posit further opportunities related to online social networking, so suffice it to say here the benefits of the Internet regarding these external barriers exceed information gathering and communication. It may be reiterated, however, that the respondents of this study regard these barriers are significant and that their experience using the Internet suggests it can mitigate to some degree the impact of some challenging barriers. One such barrier is language, featured next in Section 5.5.3.

### 5.5.3 Language

While Leonidou (2004) classifies language as a low impact barrier, firms participating in this study export to many markets and cite language as a frequent issue. Typical of this position are the comments of the following respondents:

[cited barriers] Yes, bio-security issues, language, foreign regulations

Yes, email is a very important way of communication. Internet is used for market research as secondary resource. Internet helps us to be in contact with our distributors all the time through our website where they have access to confidential and regular information to help them to market our products. On the other hand, we use Internet to get information from our competitors, market's changes, etc...

It is very important. Our web site is available in different languages and is the best place for our distributors to keep them up to date on

what is happening worldwide, to have access to marketing material for free, to get information on our products, etc (Anonymous, SA)

Difficulty obtaining strong partners in certain market regions. The distributors' access to financing to fund on ground inventory is a major ongoing issue. More international customers are requesting 3 to 6 months of receivable financing. Communication is a major issue with some Western European customers. Most Eastern European (former Soviet Union countries) actually have much better English skills than many German or French customers

Somewhat -- website and internet translation is a good start to confirm communications. Internet searches of potential customers provide some very good information. Internet is excellent for market research - - important but not vital. I believe that the importance of having multiple language capability on our website will be of growing importance in the future. At this point we rely heavily on our distribution partners. (Senior Executive, SI)

It can be observed from these responses that the Internet provides several benefits regarding language. The most obvious is as a platform for communicating via websites, at which visitors can read translated material. Firms may obtain that translated material online at language translation sites. Peer to peer and company to customer forums may enable web-assisted discussions that broker relationship-building. Internet-based communication (email, web-posting, company-hosted chat room, peer-forums) may allow users to proceed at a pace their language capacity and resource-access permits. This pacing of communication would permit better accuracy of word choice, grammar and overall meaning than, say, the potentially rushed communication of quickly-translated telephone call. Thus, in advance of interaction (e.g. developing webpages) and potentially during communication (e.g. customers translating message board postings), the Internet appears to offer opportunities for addressing the language barrier.

Effective Internet activities enable SMEs to mitigate internal marketing and external export barriers in terms of gathering information and marketing. Internet use for market research, promotion, communication and foreign representation are clearly supported. Figure 9: Utility of the Internet for Selected Export Barriers provides a concluding depiction of these benefits in relation to the impact of export barriers.

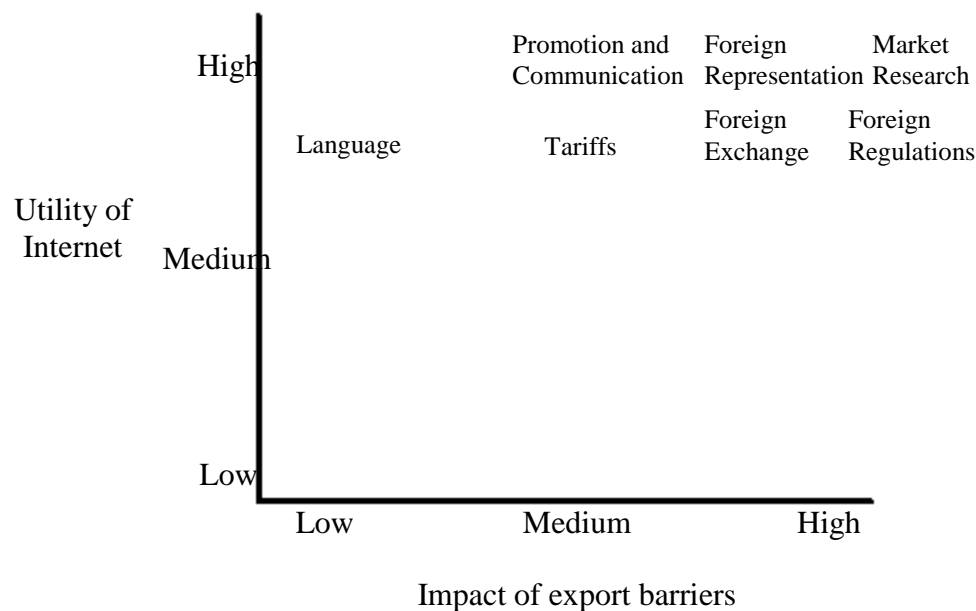


Figure 9. Utility of the Internet for Selected Export Barriers

## 5.6 Preliminary Findings about Web 2.0 and Export Barriers

One emerging phenomena was the preliminary use of Web 2.0 activities. Use of Web 2.0 was not widespread among respondents; a total of 17 of 83 firms were found to make at least some use of peering, open, rich experience technology on their websites, and 61 of 83 firms have at least some presence on the online network service LinkedIn.

The relevance of these activities to export barriers requires further study, but it appears marketing barriers and certain external barriers could benefit from Web 2.0



considerably. Promotion, communication, foreign representation all appear to benefit from online networks, as do activities involving gathering information about foreign markets, regulations, competition. Table 29 Export Barriers and Web 2.0 presents Web 2.0 activities related to specific export barriers:

Table 29  
*Export Barriers and Web 2.0*

Export Barrier	Website	Internet
Promotion, Communication, Foreign Representation, Product Development	Online networks (e.g. LinkedIn), hosting online chat forums, enabling RSS feeds/sign-ups for news releases, enabling site users and customers to forward links/emails/promos to other (potential) users, Blog, e-newsletter, peer-generated testimonials	Online networks (e.g. LinkedIn), participating in online chat forums, Online meeting technology
Market research about customers, competitors, intermediaries, regulations, tariffs, etc	Hosting online chat forums	Online networks (e.g. LinkedIn), utilizing RSS feeds/sign-ups for news releases, following Blogs,

These activities provide benefits in several ways. SMEs are able to gather information about customers, regulators, competitors and potential partners through these networks. Beyond just gathering information, Web 2.0 firms can leverage their connections to access expertise, make contact with potential customers, representatives or partners through their trusted online contacts. Firms with above average LinkedIn connections show business and regulatory links beyond Canada. These represent themselves or via their connections' connections an opportunity to access the contacts needed to address marketing and external barriers. Firms like IRG, KAS, DD and Z in particular are characterized by a large number of online employees, a large number of LinkedIn connections, and some internationalization of these connections.

Word of mouth can be a powerful marketing activity for many small firms.

Promoting via an online network represents a quick, cost-effective and often segment-meaningful approach to communicating with a large group of users. The small firms ME, KMASS and SCHL demonstrate this to some degree with its use of peer-forwarded email, links, and promotional material. Some of the respondents of this research harness peer power in other ways. Firms like CAR and MMI solicit user-generated content for their websites. While this is to some degree an online version of a testimonial, the speed and scope of the Internet means content can be uploaded and shared with great speed. Firms which invite user-generated content cannot control this content in the way testimonials can be managed. This makes it imperative that they deliver products and services that satisfy their customers who can and will circulate their feedback around the web. By inviting user posts, firms like CAR and MMI show respect to their customers, a willingness to be transparent and accountable, and interest in customers' feedback and participation in the delivery of products and services. The willingness to respond to and consult with their customers translates into a relationship of trust and respect. In terms of strategy, this serves as a defensible basis for competing.

SME are often regarded as authentic members of a community. The blogging activities of TTC and WWI, and the Q+A sessions of SCHL, suggest a kind of authentic sharing of the personality and expertise of the firms which typifies the community-oriented niche firm. Because these firms are willing to share about themselves or their expertise, site visitors develop a positive association with them. In the same way that Main Street shopkeepers were regarded as good citizens, SMEs

that blog are regarded as good members of the online community. It appears SCHL, for example, have built a widespread reputation for knowledge in their industry. The willingness of the owners to share this with the online community likely builds goodwill among potential and existing customers.

As Moini and Tesar note, SMEs typically “gain advantages over larger firms by developing personalized relationships with customers, customizing their offerings, and efficiently targeting niche markets” (2005, 83). Online developments such as those mentioned above appear to enable the active responsive small firms of this research to lever technology as another means of building personalized relationships with customers via regular, ongoing feedback in online forums, potentially adapting products for export markets based on this feedback, and thereby clearly defining the various niches the firm serves.

The challenges of external barriers will not be eliminated by any online activity, but accessing information and relevant connections and hosting or participating in forums about such topics can provide the SME with resources their own organizations could not possibly provide. The utility of Web 2.0 website and Internet activity are captured in Figures 10 and 11.

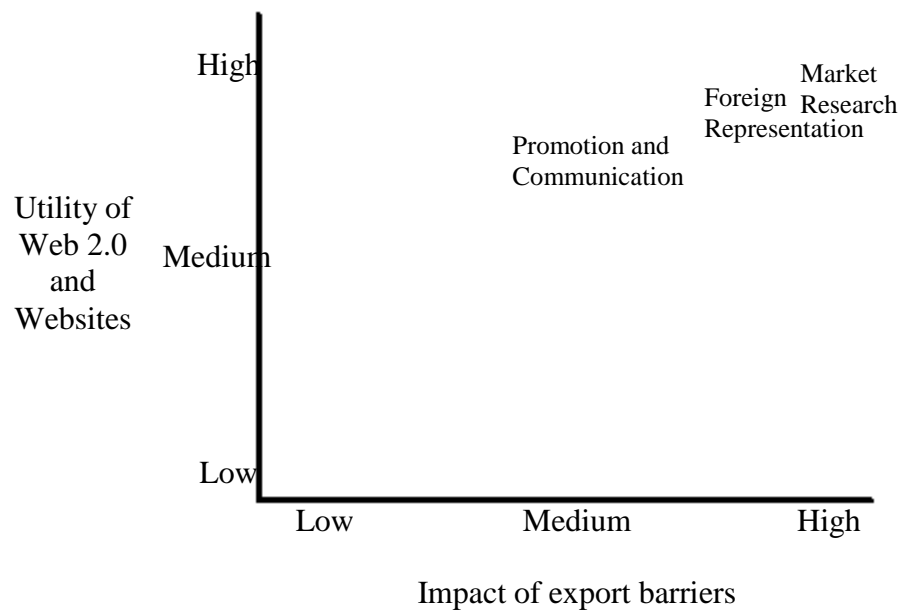


Figure 10. Utility of Web 2.0 and Websites and Selected Export Barriers

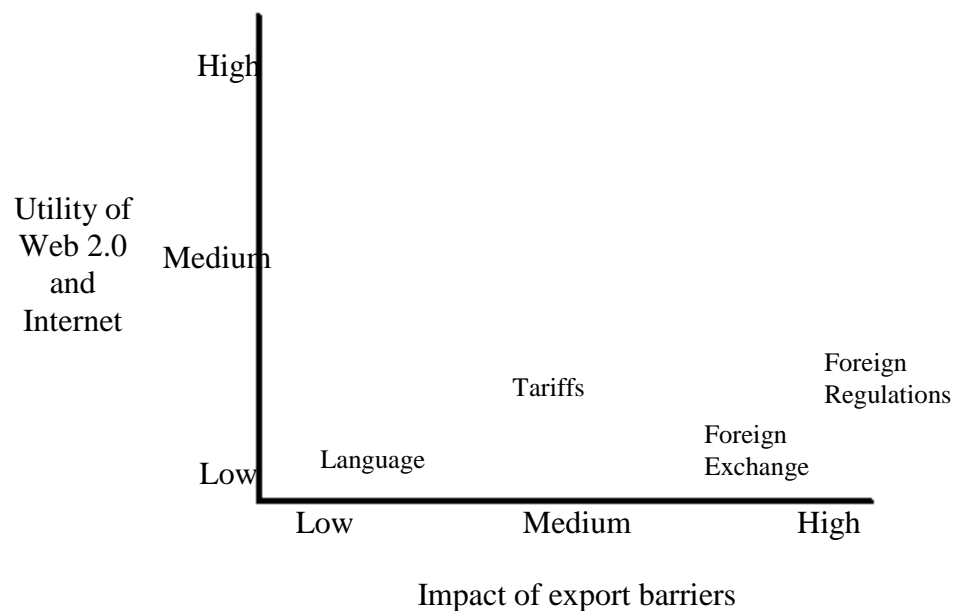


Figure 11. Utility of Web 2.0 and the Internet and Selected Export Barriers

Web 2.0 also appears conducive to leveraging technology to build a commercial community of peers with similar interests who interact promoting the firm independently. While this research did not produce enough data to conclude with confidence about internal finance and operations export challenges, it is speculated

that the Internet supports information searching and websites provide select support. However, it is outside the parameters of this study.

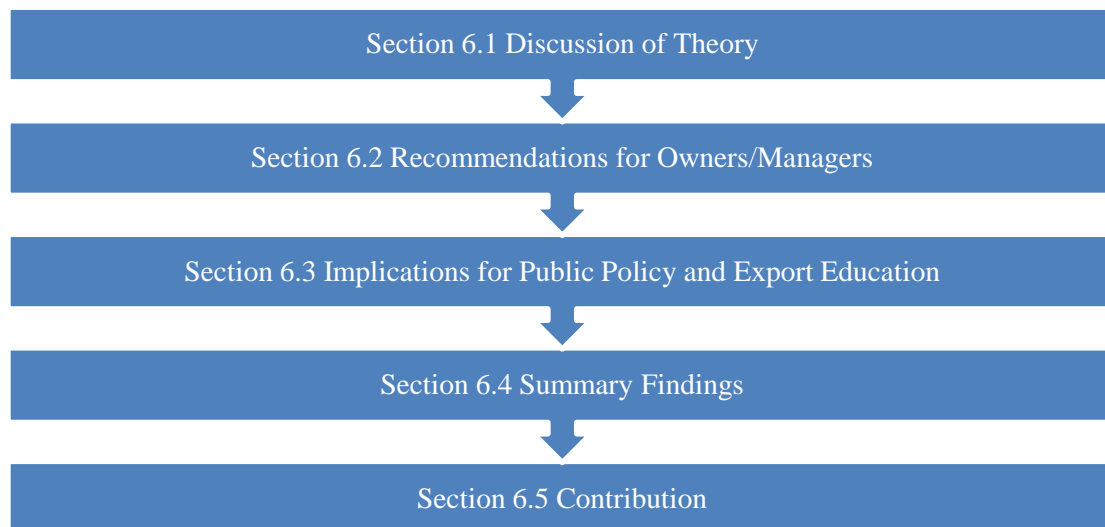
The evidence developed in this research provides an empirical step forward for understanding the role of an Internet strategy in overcoming export barriers. The next section of this research will discuss and interpret these results. In particular, consideration will be given to relating these results to the body of literature and the implications for managers.

## **Chapter Six: Discussion**

### **6.0 Introduction**

This research explores the Internet practices of SME exporters and their ability to overcome export barriers. The research has been driven by questions about the barriers exporters face, if they use websites and/or the Internet to overcome barriers, if websites/Internet overcome some barriers but not others, and even what makes a good, export website. 74% of the SMEs that participated in this research study think the Internet has an important if not critically important impact on exports. Yet the Internet activity and performance of these firms, on inspection, suggests some firms are utilizing the benefits of the Internet more effectively than others. The web performance of these SMEs appears to demonstrate the Internet is crucial to addressing some export barriers where as it provides limited utility to managing others. This chapter will discuss the findings and analysis derived from a multiple-method research study exploring the intersection of export, SMEs and the Internet.

Emerging from the analysis of the previous chapter are several key elements of theory development. Overall findings based on the triangulation of quantitative and qualitative data will then be presented, with hypotheses for a revised model provided. Best practice recommendations for managers will be provided. Some consideration will be given to the implications for public policy and export education. Concluding the discussion will be an overview of the contribution of this research to the overall body of research. The structure of the chapter is presented in Figure 12 Overview of Chapter Six below:



*Figure 12.* Overview of Chapter Six

## **6.1 Discussion of Theory**

### **6.1.1 Theory Development**

This section will address the theoretical implications of the evidence and analysis generated by this research. First, the ramifications for the greater body of theory will be considered, with particular consideration of network theory. Following this, a discussion of the theoretical implications of the model will be presented. Finally, hypotheses for a revised model will be provided.

One of the theoretical foundations of internationalization is network theory. Some of the main precepts of this theory were developed in Chapter 2. According to proponents of this theory, the social and industrial relationships of members of a value chain provide market opportunities for small firms on the basis of relationships (Aldrich, Rosen and Woodward, 1987). To fully leverage this value, small firms must access a large, strong, diverse network of contacts (Aldrich and Martinez, 2001) with a well positioned owner/manager (Burt, 1992). It is the owner/manager who is embedded in the network with his/her relations and contacts that define social

networks (Burt, 1992). This person's propensity to network and his or her strength of connections is linked to the firm's realization of network utility (BarNir and Smith, 2003), which in the case of an internationalizing firm involves deriving knowledge about and access to foreign customers, suppliers, and other supply chain participants. (Coviello and Munro, 1995, Coviello and Munro, 1997). Such relationships may support international market development (Coviello and Munro, 1997), market selection (Agndal and Chetty, 2007), market research, new product development, sales and promotion (Keeble, Lawson, Smith, Moore and Wilkinson, 1998).

The evidence generated by this research supports the theory of network-based internationalization in coordination with an online strategy. The utilization of the Internet, effective websites and a robust Web 2.0 presence enables firms to collaborate with foreign supply chain participants. In their interview and/or survey responses leading Internet users find online promotion or communication activity enables them to connect with and research about their market. Gathering information, communicating with customers, finding foreign representation, language and promoting products are all often cited and high impact export barriers. The benchmark practices of these firms suggest the Internet supports network-based internationalization. Effective, internationalized websites also facilitate network-based internationalization. Existing channel partners and distributors can access the information they need to represent the firm abroad and engage the firm through its interactive, customized relationship portal. This same portal can launch relationships with potential partners and customers and in effect serves as a network springboard into foreign markets.



Arguably, the online strategy with the most potential for networking are the SNS and BNS sites that by definition are online communities of supply chain participants. Such sites are generally highly engaged and interactive; interaction which often leads to knowledge creation and sharing (Toral, Martinez-Torres, Barrero and Cortes, 2009). Where the process theory of internationalization posits some international knowledge can be obtained primarily by experience, it would appear the online network with its collective intelligence can generate such knowledge by association. Indeed, the concept of a knowledge ‘barrier’ may be antiquated by SNS and BNS sites in which knowledge and insight are derived by large, diverse, international members. Since these sites are scalable in terms of the number of participants and volume of interaction, and, since they are composed of international members, the exporter that participates in such networks accesses a diverse supply chain and cultural group. Thus, by Aldrich and Martinez’s (2001) account, Web 2.0 and the Internet as a whole represent an advancement in international networking both in terms of managerial practice and theoretical development.

But, it is the owner/manager’s relations and contacts that lead to network utility (Burt, 1992). As has been argued before by advocates of INV theory, firms go international sooner than traditional theory explains or predicts because entrepreneurs seize opportunities by marshalling resources in creative ways. The owner/managers of INV firms bring an “unusual constellation of competencies” to their international orientation (McDougall et al, 1994, Oviatt and McDougall, 1994). The network / international / Internet orientation of the owner/managers of this research demonstrate this individual is crucial to deriving value from the network. As the findings demonstrate, the orientation of the key decision maker distinguishes the firms that

leverage the Internet and those that do not. While each individual body of research has identified entrepreneurial drive within its stream of literature, this research advances the state of theory development with an integrated conclusion about owner/manager orientation. The Internet provides optimal connections to break the bounds of international resource constraints if an SME has the right champion with the propensity to network.

#### 6.1.2 Discussion of Model

Several relationships were anticipated at the outset of this investigation as evident in Figure 4 Qualitative Model of the Role of Internet Strategy for SME Exporters.

Qualitative and quantitative analysis suggests only a few of the propositions were upheld, and that the structure of the model needs further testing. Yet, a clear link regarding export barriers, Internet use and export performance emerges. This section will consider the overall fit of the qualitative model from Figure 4, as well as consider the overall findings regarding the modeling of this research.

#### *Factors and Model Fit Discussion*

In the original model it was anticipated that decision-maker, resource and export strategy variables would have a positive relationship regarding the perceived impact of the Internet for marketing. Interview data suggests the decision-maker is a key component of adopting and using an online strategy. Given a dynamic leader, it appears resource constraints like money and knowledge can be overcome. Even for export-intensive firms and those firms which employ direct export strategies, the key driver of success based on qualitative data is a proactive decision-maker. Aaby and

Slater (1989), Leonidou, Katsikeas and Piercy (1998) and Orser, Spence and Carrington (2007) identify key export orientation influences like personality, experience, personal network and international orientation. These personal factors help explain attitudes regarding the perceived value of something like the use of the Internet for marketing. Future modeling should consider integrating these elements and testing their impact regarding the role of the Internet and exporting.

Initially it was anticipated that a positive relationship would exist regarding the firm's market selection strategy and the perception of the value of the Internet. As noted in Section 4.1, 72% of these firms primarily target the United States. Roughly one fifth do not export to Europe, Asia or other parts of the world, and only 12 indicate exports of more than 50% of their total exports are directed to one of these regions. Thus, these firms may well value the Internet for marketing regarding market selection, but a distinction based on geographic target is not evident among these respondents. Interview data from one firm supports the notion of market distinctions, but this clearly needs more work. Future work may benefit by specifying the barriers per specific geographic market and testing if positive relationships emerge by that method.

It was also anticipated that a positive relationship would exist regarding the firm's market entry strategy and the perception of the value of the Internet. Again, there was no significant relationship found. Over 50% of respondents indicate distributors are at least moderately important, and over 70% note the same for agents. Considerably fewer cite domestic trading houses, overseas sales offices, joint ventures or foreign direct investment. This appears to be a model development limitation related to sample size and data richness.

It is not to say the relationship does not exist for these two elements of export strategy; rather, the data generated did not find these paths to be statistically significant. Based on the work of Reid (1981), Papadopoulos and Denis (1988), Chetty and Hamilton (1993) and Root (1994), it is clear these decisions are central to forming an export strategy. And, given the risks of choosing less attractive markets or using less effective entry modes, optimizing decision-making is extremely important. Thus, it is still anticipated a positive relationship exists between these independent export strategy variables and the perception of value regarding the Internet for marketing as the effective use of this platform should support an export strategy.

It is likely no surprise that IT barriers should be linked to an IT performance. While IT barriers were not strong detractors for this group of respondents, they were present to some degree. As considered in Section 5.2.2, as a firm's experience of IT barriers decrease they appear to be able to dedicate themselves to more and new online activities like LinkedIn business networks. The use of such networks requires little in the way of incremental knowledge, so respondents' general Internet knowledge would likely suffice. Therefore any SMEs interested in participating, even those few that indicate IT barriers are significant, would not be overly constrained in adopting this online activity.

While not a central component of this research, export market selection and the use of the Internet for promotion emerged from survey and interview responses as significant. In their open-ended responses many participating SMEs note the importance of their websites for export, although the firms' websites themselves were

generally not well developed. These same respondents describe the challenges of promoting to and communicating with customers in foreign markets. It is a logical relationship then that exporters involved with foreign and possibly multiple markets would value and make use of various online approaches to promoting its website to potential customers in those foreign markets. As IT barriers had apparently only minor impact, the firms of this research have demonstrated some use of email, linking, pop-up ads, search engine marketing and online personal contact to draw users to their websites.

Finding foreign representation was the export barrier with the highest frequency among respondents and a barrier Leonidou (2004) classifies as high impact. Arguably other export barriers like promotion, communication, language, and market research are also served by website content, at least based on website evaluation data and qualitative survey data. And, with interesting new developments in Web 2.0 marketing involves peer content development and interaction, other product, promotion and research barriers may be effectively mitigated by an exporter's website. Website development and maintenance is a typical IT barrier. This research demonstrates a connection between ownership of a firm and the performance of the firm's website and that this is directly linked to the firm's export performance. Effective management of exporting and IT require champions, individuals who take the lead on planning and executing initiatives. This research suggests the power of SME owners to mobilize the resources and commitment to IT helps overcome IT barriers and produce results. Better performing websites mitigate some export barriers and contribute to better export performance. The addition of the ownership

→ website content relationship captures a key finding of the quantitative and qualitative research.

The perception of IT barriers was not significantly linked to the attitude towards the Internet for marketing. As cost and knowledge demands increase there was no appreciable change in the value respondents placed on the use of the Internet. This may indicate IT barriers pertain more to website development and management than using the Internet for market research, finding foreign representatives and doing promotion and communication. While possible, the qualitative analysis presented in Table 27 Integrated Clusters Based on Attitude, Behaviour and 5-year Export Trends indicates more than 30 firms demonstrate poor online performance. Thus, while the perception of IT barriers may not be linked to perception of the value of the Internet, it may well be linked to utilization of Internet in variables not tested in the behavioural intervening model.

#### *Intervening Factors and Model Fit Discussion*

The intervening factor of the proposed model was online strategy. In essence, this is a behaviour, an activity influenced to some degree by the organization and which itself influences export performance. Two notable relationships emerging from this research are the attitude to the use of the Internet for finding foreign representation and the corresponding website content performance, and, the attitude to the Internet for market research and the corresponding use of Web 2.0 online networking. These relationships link the use of the Internet to overcoming export barriers, as Leonidou (2004) cites market research activities and foreign representation as high impact. Management attitude towards and effective execution of online activities such as

website content and online networking, inclusive of Web 2.0 activity, are directly linked to total exports and future export projections. These relationships, then, are key indicators of the role an online strategy plays in overcoming export barriers and achieving export success.

One of the key findings of the qualitative analysis is the perception among respondents that websites are excellent vehicles for promoting products and communicating information about the company. Product promotion is the most frequent form of content for these respondents. Yet, these firms in many cases had poorly ranked websites in terms of content, interactivity, internationalization and marketing. And, as evidenced in Table 27 Integrated Clusters Based on Attitude, Behaviour and 5-year Export Trends, 33 firms demonstrate poor use of the Internet, 23 of which indicate the Internet is important. As such, the respondents present a mish-mash of attitudes and behaviours. Among the firms that value the Internet and demonstrate effective behaviour, it can be concluded from the qualitative analysis that a positive relationship appears to exist among between promotion and website content.

Thus, it is clear elements of an Internet strategy are central to understanding export barriers and export performance.

#### *Dependent Factors and Model Fit Discussion*

Based on a cluster of 26 firms from Table 27 Integrated Clusters Based on Attitude, Behaviour and 5-year Export Trends, it appears that a link between effective online

behaviour and export performance is supported. Further investigation is required to fully understand this relationship.

#### *Export Strategy, Export Performance and Model Fit Discussion*

One of the research aims of the qualitative model developed in Figure 4 Qualitative Model of the Role of Internet Strategy for SME Exporters was to capture the link between export strategy and export performance. This is a finding demonstrated in the literature. Bilkey (1978), Aaby and Slater (1989), Madsen (1987), Zou and Stan (1998) and Leonidou et al (1998) demonstrate the managerial, organizational and strategic drivers of performance. Export barriers, which are in part a function of export strategy, are linked to both Internet use and five-year export trends. Thus, export strategy inclusive of export barriers are linked to performance consistent with the literature, but the link is demonstrated in a few paths only.

#### *Firm Size and Model Fit Discussion*

One last element of the model should be considered – the impact of firm size. Larger firms tended to have larger total exports, but there were no correlations between firm size and the perception of export barriers, attitudes toward the Internet, and website/Internet performance. There was no clear distinction of the perception of IT barriers regarding financial or people resources based on firm size, and for many firms the overall impact of these barriers was relatively small. Certainly larger firms could have greater absolute number of LinkedIn connections, but after standardizing these numbers relative to firm size, proportionally there was no distinction of Web 2.0 participation based on firm size. These findings appear to be consistent with the ‘born



global' findings of authors like Oviatt and McDougall (1994), McDougall et al (1994), Bell (1995), McDougall and Oviatt (1996), Chetty and Campbell-Hunt (2003), Loane and Bell (2006), Jones (1999) and Jones (2001). In this view, SMEs are innovative and speedy in accessing foreign markets. It appears larger SMEs and smaller SMEs have similar distributions of attitudes towards the Internet for marketing, website performance, online promotion + communication, and online networking. The findings of this research suggest the Internet supports internationalization equally well among micro-enterprises and larger SMEs.

### *Model Fit Conclusions*

It can be argued from this model and from the research on which it is based, then, that an effective online strategy produces tangible results for exporters. The use of the Internet for information searching and online networking enables the exporter to address information deficiencies and leverage resources among customers, stakeholders and potential partners. Niche strategies emphasizing unique and authentic customer-focused relationships appear to flourish with well developed websites and Web 2.0 strategies. Export marketing activities such as customer and market research, communication, product development and promotion, and customer service are all well supported an online environment that emphasizes a rich, technology-supported experience. Resource-challenged SMEs can mitigate the impact of high impact external barriers by utilizing the information and network contacts via online business networks. These opportunities also support the firm's export strategy regarding market selection and entry decisions like finding foreign representation. The returns, ultimately, take the form of exports. Utilizing the

Internet is qualitatively and quantitatively linked to export performance. In the final analysis, this is the key objective for the exporting firm.

Thus, the model developed in Figure 4 Qualitative Model of the Role of Internet Strategy for SME Exporters is only partially upheld. It appears to capture many of the key variables in the essential roles of independent, intervening and dependent relationships. However, it is only partially representative of the relationships of online strategies regarding export barriers and performance. These relationships are summarized in a revised version of the model presented in Figure 13 Revised Qualitative Model of the Role of Internet Strategy for SME Exporters.

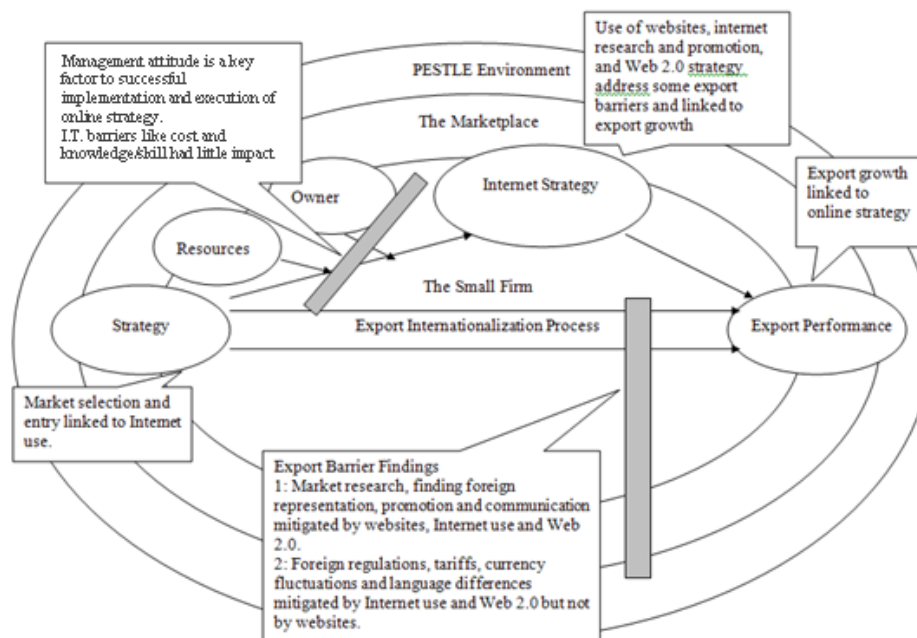


Figure 13. Revised Qualitative Model of the Role of Internet Strategy for SME Exporters

relationships which may serve as the basis for more advanced statistical analysis.

These are presented in Section 6.1.3.

### 6.1.3 Model Proposition for Future Testing

Set within the greater context of a marketplace and influenced by external political, economic and social forces, the model centres on the SME organization. The focus of this model is export and the use of the Internet and how these factors influence export performance. The relationships are informed by the literature and advanced by the qualitative and quantitative evidence generated from this thesis. Moving from general influences to a specific outcome – export performance – the hypothesized relationships consider the influence of independent factors, the intervening role of the Internet and several dependent factors of performance. The following relationships are anticipated:

1. In terms of the owner, the key decision maker for the firm, it is expected a positive relationship will exist regarding:
  - a. Attitude and management commitment to export and the impact of the Internet regarding marketing activities such as market research, foreign representation and promotion + communication. It is expected that attitude and commitment are the outcome of other personal factors including personality, experience, entrepreneurial orientation, personal network and international orientation which were found by Orser, Spence and Carrington (2007), Leonidou, Katsikeas and Piercy (1998) and Aaby and Slater (1989) to correlate with export initiative. As a decision-maker's attitude to the benefits of the Internet in general increases, the uptake of Internet use for export marketing will increase.
2. In terms of the resources of the firm, a positive relationship will exist regarding:

- a. The access to IT knowledge increases the perception of IT barriers will decrease and the uptake of the Internet for marketing activities like market research, foreign representation and promotion + communication will increase. The findings of this research suggest size by revenues or number of employees does not determine Internet uptake. Similar findings in the INV literature suggest small firms can internationalize from inception. The key issue is the ability to access necessary resources, which in the case of export and Internet usage is knowledge. Again, this may link to the owner's personality, entrepreneurial orientation, experience, etc. That said, as the perception of IT barriers increases, it is also expected the perception of the value of the Internet, as a low-cost, effective and accessible marketing channel will increase.
3. In terms of the firm's export strategy, it is expected a positive relationship will exist regarding:
  - a. Foreign market selection and the attitude towards the impact of the Internet regarding marketing activities including research, foreign representation and promotion + communication. The market selection process involves collecting information and interacting with potential customers/representatives. As a low-cost, effective channel, Internet use may vary by target market. As exporters target increasingly foreign markets, in this case those markets other than the United States, it is expected the perception of the value of the Internet will increase.

- b. Market entry and the attitude towards the impact of the Internet. The decision to do business in another country demands consideration of risk and reward. As the firm's market entry approach moves from less intense (domestic trading houses) to more intense (agents, distributors, joint ventures, foreign direct investment) it is expected the perceptions of the Internet will increase to correspond with information intensity requirements.
- c. Management commitment to export and the perceived importance of the Internet. This gauge of commitment reflects the export intensity of a firm. As management commitment to the importance of export increases it is expected the perception of the value of the use of the Internet will also increase. In other words, as the decision-maker increases the importance of export to the firm the value of adopting and using the Internet will grow.
- d. The perception of export barriers and the attitude towards the impact of the Internet marketing. Foreign market selection and mode of entry, coupled with the corresponding internal and external challenges, will influence the firm's perception of export barriers. As the perception of export barriers increases it is anticipated the perception of the Internet as a means of overcoming those barriers will also increase. And, as Internet use increases, it is expected that the perception of export barriers will diminish.

The model also anticipates the following intervening relationships:

4. In terms of the firm's online strategy, a positive relationship will exist regarding:
- a. The attitude towards the impact of the Internet regarding marketing and the firm's commitment to using the Internet, its website, and Web 2.0. As the firm's perception of value about the Internet increases there should be a corresponding increase in the use of the Internet for export marketing. Without a positive attitude towards the Internet, it is unlikely firms will make proactive use at all and specifically as part of their export strategy. With regard for the utility of the Internet, an SME will develop / obtain the knowledge needed to implement an online strategy
  - b. The commitment to using online strategies and better Internet, website and Web 2.0 utilization. In other words, a firm will have better Internet marketing practices, better export-oriented websites, and better utilization of Web 2.0 as a result of committing to the web. Commitment leads to applying crucial knowledge, time and financial resources to adopting and adapting the Internet to export marketing challenges including market research, promotion and communication and obtaining foreign representation.

Finally, the model anticipates performance relationships:

5. In terms of the firm's online behaviour, a positive relationship will exist regarding:
- a. Internet usage and the export sales projections and total exports of the firm. Effective information gathering and market research, online

promotion and communication and relationship management with customers and foreign representatives will lead to better performing exporters. This will manifest itself in better current and future sales.

- b. Website quality and export sales projections and total exports of the firm. Export-oriented, customer-customized, interactive marketing sites that look good and provide enough good information will be associated with higher current and projected export sales. As an important medium for a company's relationship with its stakeholders, the website supports and influences the firm's export strategy in terms of promotion, communication, foreign distributors, service, and market customization.
- c. Web 2.0 usage and the export sales projections and total exports of the firm. The dynamic, interactive nature of customer-driven Web 2.0 activities specifically addressed often-cited export marketing barriers and enables firms to overcome these barriers. It is expected that as firms increasingly adopt Web 2.0 they will experience a corresponding increase in export sales.

In sum, these hypotheses predict a positive relationship between an online strategy, overcoming export barriers and achieving export success. .

For research exploring if relationships exist and the nature and strength of those relationship, a comprehensive statistical method is required. Structural equation modeling (SEM) estimates of the strength and significance of hypothesized causal relationships. Garson (2006) notes this approach is effective when predictive

relationships exist and when correlation is present among variables. SEM tests how well a set of data fits a theory represented by a model and answers questions like:

- Does this model remain plausible when we look at the data?
- What are the quantitative relationships?
- What is our best estimate of the relative strengths of the causal effects? (Loehlin, 2004, 152)

Hoyle (1995) refers to a model as a “statistical statement about the relations among variables” while model specification is “the exercise of formally stating a model” (2). SEM refers to empirical modeling of the directed dependencies among a set of variables that supports a form of multiple regression (Cohen, 2003, Loehlin, 2004). The objective of this analysis is to provide estimates of the strength and significance of hypothesized relationships among the variables in a set of data. As MacCallum (1995) explains, the “purpose of such a model is to provide a meaningful and parsimonious explanation for observed relationships within a set of measured variables” (17). This enables the researcher to estimate the predictive power of these variables for the data. Loehlin (2004) avoids a “strict” definition of the concept of causation, arguing instead that the “essential feature for the use causal arrow is the assumption that a change in the variable at the tail of the arrow will result in a change in the variable at the head of the arrow, all else being equal” (4). According to Loehlin (2004):

The qualitative features of the situation are thus spelled out in advance, and the question we ask is, does this model remain plausible when we look at the data? And if so, what are the quantitative relationships: What is our best estimate of the relative strengths of the two causal effects? (152)

Over repeated steps the researcher investigates the relationship of data fit with a model and model fit with reality.



SEM was not commonly used in early export studies. In their review of 43 studies on export performance Aaby and Slater (1989) found no firms using path analysis or structural equation modeling. Regression and ANOVA were the most commonly used approaches to analysis. Zou and Stan (1998) reviewed 50 studies on export performance, of which 6 used structural equation modeling. Wheeler, Ibeh and Dimitratos (2008) reviewed 33 studies about export performance, in which 1 pair of authors used path analysis (Balabanis and Katsikeas, 2003) and 2 used structural equation modeling. Recently Acedo and Jones (2007) used a form of structural equation modeling called Partial Least Squares to assess the relationships between entrepreneurial orientation and speed of internationalization among several categories of firms including exporters. In the Balabanis and Katsikeas (2003) study of 82 UK exporters (notably the same number of respondents reported for this thesis in Chapter Four) the authors used a variety of measures including Likert scales, continuous interval data and dichotomous variables. Further, the authors incorporate an independent, intervening, dependent structure to investigate export performance. Other export studies have employed path analysis as well. In their justification for the use of this approach, Karelakis, Mattas and Chryssochoidis (2002) argue their path analysis makes an innovative methodological contribution with its assessment of the direct, indirect and total impact. Prior to their study, the authors found the “majority of export performance studies have tended to focus their investigations on either bivariate or multivariate relationships without probing the extent of overall impact” (276). Their study involved a relatively small sample size of 110 wine exporters from Greece, albeit the entire population of producers. Using SEM offers an opportunity for delving further into the study of export performance. Thus, while early work in export research did not employ SEM, recent work has established a small but

emerging body in this area. This presents some interesting directions and methodologies for future export research.

Models are representations of reality, capturing the relationships of export dynamics. Within this framework, SME owner/managers are faced with multiple, complex decisions for their firms. The next section of the discussion presents recommendations of best practices observed from the respondents in this study.

## **6.2 Recommendations to Owner/Managers**

In the early days of the World Wide Web it appeared obvious that opportunities for developing an export strategy existed online. Hamill (1997) captures this view when he writes that the “traditional approaches to export strategy development should now be complemented by the development of Internet-based support strategies” ( 316).

The findings of this research indicate an online strategy is critical to successful exporting. In the words of the founder, owner and manager of TTC, “I can't begin to describe how important the internet is for my business...it's absolutely critical to the future success of my company”.

To ensure this success, practitioners may benefit from the experience of the respondents in this study. Compiled in Table 30 Online Strategies for Selected Export Barriers are submitted or observed website and Internet practices found to be effective for overcoming selected barriers. As noted earlier, this discussion has focussed on several barriers so the findings for these are well supported. It may be that the best practices listed below are suitable for other export barriers as well, but this requires further investigation. Similarly, the focus of this study has been marketing. Export

barriers related to finance and operations may well be addressed by the Internet as well but that is beyond the scope of this research.

Table 30  
*Online Strategies for Selected Export Barriers*

Export Barrier	Website	Internet
Promotion, Communication,	<ul style="list-style-type: none"> <li>• Dedicated internationalized content, customized by language, country and customer group. Clear information about company, management, contact information</li> <li>• Rich customer experience, involving opportunities for self service, two-way communication, and interaction with peers via online networks and chat forums, RSS feeds/sign-ups for news releases, enabling site users and customers to forward links/emails/promos to other (potential) users, peer-generated testimonials, and virtual tours/interaction with product/service</li> <li>• Rich promotion and communication with interactive product/service experience featuring virtual technology, technical downloads, virtual custom planning, interaction with peers, e-news</li> </ul>	<ul style="list-style-type: none"> <li>• Online networks (e.g. LinkedIn), participating in online chat forums, Online meeting technology</li> <li>• Registering with search engines, posting links on relevant industries</li> </ul>
Foreign Representation	<ul style="list-style-type: none"> <li>• Dedicated material for foreign representatives with self-service</li> <li>• Needs assessment and sign up options</li> <li>• Promotion and communication above</li> <li>• Downloads, technical specs, virtual product</li> <li>• Regulations link with company Certification,</li> <li>• Company background, management profiles, export awards</li> <li>• Trade show schedules, e-news</li> <li>• List of export markets, customers, and agents/distributors</li> </ul>	<ul style="list-style-type: none"> <li>• Online networks (e.g. LinkedIn), participating in online chat forums, Online meeting technology</li> <li>• Registering with search engines, posting links on relevant industries</li> </ul>

External research Re: regulations, tariffs and currency fluctuations	<ul style="list-style-type: none"> <li>• Testimonials</li> <li>• Hosting online industry chat forums with peer posting and news releases from firm and industry members</li> <li>• Industry links and RSS feed forwards from relevant industry and government sites</li> </ul>	<ul style="list-style-type: none"> <li>• Online networks (e.g. LinkedIn), utilizing RSS feeds/sign-ups for news releases, following Blogs,</li> </ul>
Language	<ul style="list-style-type: none"> <li>• Exchange links, calculator</li> <li>• Providing target market language content</li> <li>• Utilize target market imagery to support text</li> </ul>	<ul style="list-style-type: none"> <li>• Utilizing online translation sites</li> </ul>

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Websites represent an excellent opportunity to promote, communicate, internationalize, and create an interactive experience for export stakeholders. Sites can also serve as a forum for supply chain organizations to exchange ideas about external barriers. Online information searching, communication and promotion appear to have been well-embraced by the companies in this research. New opportunities for partnering with agents and distributors, and utilizing online business networks for researching and communicating represent exciting directions for export and overcoming export barriers.

It appears from the model that IT barriers still create challenges for SMEs, but the key factor to successfully implementing the best practices noted above is the owner/manager. Awareness of and appreciation for the role of an online strategy drives the successful implementation of these intervening variables of an export strategy. This point and other summary points are featured in the next section.

### **6.3 Implications for Public Policy and Export Education**

While outside the general parameters of this research, the findings of this thesis suggest some implications for public policy and education. Government support for creating an environment of innovation can result in a highly-competitive business community. Funding research into the use of advanced e-strategies, supporting the development of business incubators to enable entrepreneurs to access export and Internet strategy support, and investing in a national infrastructure of supporting technology are just several options to encourage innovative development among the commercial sector. The Department of Foreign Affairs and International Trade, coupled with Industry Canada and the many provincial economic development bodies should develop a comprehensive plan for promoting the integration of export activities and web-based strategy. The government has an established network of export-focussed events, trade rallies and workshops that would be ideal opportunities for implementing such a plan. In partnership with export-focused service providers like Export Development Canada and the Canadian Manufacturers and Exporters Association, as well of information technology-focussed organizations like the Information Technology Association of Canada (ITAC), an Internet, website and Web 2.0 plan could be jointly developed and distributed efficiently and effectively.

Government-sponsored trade missions are standard export promotion activities in Canada. Yet, little work to adapt and utilize advanced online technologies has been achieved thus far. The potential to gather research and begin communication in advance of a mission and complete the needed follow-up after the mission appear to be ideal scenarios for export firms based on the findings of this research.

Export education takes place formally through many channels. The country's national trade certification program, the Forum for International Trade Training (FITT) has an eight-module professional designation program covering topics like foreign market research, international marketing and logistics, finance, etc. At present they contain little to no online content in their training materials. This represents an obvious direction for future development.

At the university and college level, the delivery of content typically follows functionally distinct lines. Marketing concepts are taught separate from export material, and these are delivered in isolation from electronic strategy, etc. Yet, the findings of this research suggest entrepreneurs who pursue foreign markets and who adopt advanced online strategies recognize opportunities for forwarding their business objectives. Underlying the export and Internet findings of this research is the fundamental concept of seizing opportunities. Market-driven entrepreneurs must adopt the most appropriate strategies demanded by customers and implement these strategies effectively. This invites an integrative approach to business, which may require a more integrative approach to business education.

#### **6.4 Summary Findings about the Internet and Export Barriers**

Integrating the analysis and discussion thus far, several conclusions can be triangulated from the quantitative and qualitative evidence. The firms of this study identify six key barriers of at least moderate impact; finding foreign representation, promotion and communication, language, foreign regulations, tariffs, and currency fluctuation. The barriers are both internal and external in nature. Using the Internet, websites and Web 2.0 appear to minimize the negative impact of these barriers.

The firms demonstrate inconsistent performance when it comes to websites. The owner/managers generally recognize the sites are important at least for marketing. However the sites themselves vary considerably in their effectiveness and application. Several key elements like internationalization, customer interactivity and marketing interactivity are often poorly managed. The analysis of this project suggests effective websites enable SMEs to mitigate internal export marketing barriers towards achieving export success, but provide minimal utility for overcoming external export barriers. A notable exception to this is peer-generated, Web 2.0 activity that draws on the wider community of a firm's supply chain. Given the opportunities to lever websites and address export barriers, it appears the SMEs of this study are missing crucial opportunities. As noted by Vivekanandan and Rajendran (2006) "the sophistication and complexity of the firm's website reflect the strategic priorities of the firm" (28). Firms with good websites provide internationalized content that addresses communication, promotion, foreign representation and language barriers. These sites provide a rich, interactive experience on a good looking website. It appears internal and external barriers can be mitigated with recent developments in Web 2.0, in particular with the advent of peer-generated content and interaction.

Effective Internet activities enable SMEs to mitigate internal marketing and external export barriers in terms of gathering information and marketing. High impact barriers regarding markets and external forces cannot of themselves be eliminated, but the negative factors can be mitigated and the positive opportunities leveraged. As presented in Table 27 Integrated Clusters Based on Attitudes, Behaviour and 5-year Export Trends, 22 of 51 clustered firms demonstrate effective online behaviour and

those same firms experienced export growth over the last five years. Further, respondents in this study identified language (low), communication (moderate) and promotion (moderate) as some of the key barriers yet these same firms tended to have low internationalization and interactivity of websites. This suggests firms are missing opportunities by underutilizing technology options relevant to barriers.

Based on the analysis of this research project, the key factor influencing firm's online utilization is management's awareness of and perception of value. The common denominator of the integrated analysis presented in Table 27 Integrated Clusters Based on Attitudes, Behaviour and 5-year Export Trends is management orientation. It appears the attitudinal factor relates to the utility created by online activity. Moini and Tesar (2005) noted "the most significant internal stimulus to deployment of an Internet web site is managements' view that an Internet web site provides attractive opportunities for increasing assets and profits" (87). Further, Tiessen et al (2001) argue that "Internet firm capability created a virtuous circle: those possessing Internet and cultural capabilities recognize more readily the opportunities offered by web use and cultural adaptation, and were more likely to deploy these talents" (223). In other words, the "can do" orientation gained by devising an online strategy creates an attitude of ability for management and a culture of success. Thus, owner/management awareness of and perception of the value of the Internet is the key barrier to more proactive use of both websites and the Internet towards achieving these benefits above. IT barriers such as cost, access to skills, customer perceptions and concerns about risks appear to have less impact among the respondents of this research.



While the findings about the use of Web 2.0 are preliminary, there are some exciting developments in the applicability of these strategies to export. Overcoming resource challenges such as access to foreign market information and expertise regarding regulations via online networks, leveraging the preferences and input of foreign customers using social media sites and hosting web forums, providing a rich online experience for those customers, and mobilizing potentially powerful online word of mouth strategies with peer-forwarded communication are just some of the ways exporters can address export barriers.

The Internet does help firm overcome export barriers; the Internet does help firm improve export performance. Consistent with the conclusion of Moini and Tesar (2005), “the Internet also has become indispensable for the development and implementation of a corporate competitive strategy” (87). Such a strategy affects the overall growth and development of the firm (Jones, 1999). Thus, a firm is not just overcoming export barriers pertaining to foreign markets, it is developing market knowledge, customer relationships and navigating a competitive environment for all its markets. The network an owner/manager leverages is to the benefit of the firm’s entire strategy. Web 2.0 collaboration yields opportunities for innovation and performance optimization across the entire spectrum of the SME. In this context, the findings of this research pertain to the overall effectiveness and efficiency of firms and markets.

Having summarized the findings of this research project, the next and last section of this chapter will identify the contribution of this work to the greater body of knowledge in this area.

## **6.5 Contribution**

Glenn Voss (2003) writes that interesting research makes a significant contribution to the body of knowledge. A contribution explores new relationships, situations, contexts or constructs that change our current understanding of the phenomenon. Phillips and Pugh (2000) discuss the various ways of showing originality, including developing a new idea, extending and/or testing existing theory, applying ideas in a new way, approaching research in new or modified methodologies, taking an interdisciplinary approach among others. With this in mind, the next section will outline the contribution of this research to the greater body.

Hopefully, the first contribution of this research and its ‘action, observation, labelling and reflecting on the action’ has created linkages to the greater body of research and by these linkages changed that body (Weick, Sutcliffe and Obstfeld, 2005). In making sense of a phenomenon the research community as a whole benefits by an advancement of theory. In the third chapter it was argued that SME exporters’ use of the Internet is in the intermediate stage of theory development (Edmondson and McManus, 2007). Research in this stage presents “provisional explanations of phenomena” often by introducing a new concepts and relationships (1158).

Throughout this research a key objective has been to explore the connections of three often separate bodies of research and the emerging study of Web 2.0. To this end a mixed methodology was used to integrate qualitative and quantitative evidence. This process considered the plausibility of a SME online export model. The confluence of these research streams tentatively confirms that a proactive online strategy does indeed enable SMEs to overcome export barriers and potentially render many of them

a thing of the past. As a key outcome, propositions for statistical confirmation are offered. In light of Edmondson and McManus' (2007) gauge of theory development, these outcomes are an appropriate contribution for a body of research in the intermediate stage.

This research provides a contribution to the advancement of knowledge in several keys ways. Little to no work had been completed investigating the role of the Internet and export barriers. The fields of export and SME internationalization are well developed, but a common gap in this research is the role the Internet plays in supporting firms' international strategy. In particular, this research extends the study of export barriers completed by Leonidou (2004) by applying the field of Internet research to his classification of export barriers. This provides a welcome focus and an extension in the field of export studies in particular.

Methodologically, the research that had been completed used exploratory cases studies or interviews or a large-scale survey but there are few cases in which multiple methods were used. Further, SME internationalization studies show a paucity of research involving the evaluation of websites and the role websites play in supporting exports. Moini and Tesar (2005), for example, based their conclusions on website effectiveness using self-reporting measures. The research of this thesis employed a transparent website evaluation tool with quantitative evaluation and qualitative observation data. The data generated from this tool helped complete the understanding provided by survey and open-ended questions.

Conceptually, research about small firm internationalization has resulted in recent calls for an integrated framework (Coviello and McAuley, 1999, Andersson (2000), Andersson and Wictor (2003), Crick and Jones, 2000, Jones, 1999 and 2001, Tiessen et al, 2004, Etemad 2004a, 2006, and Loane et al, 2004). Highlighting this call are Crick and Jones (2000) who note:

a more integrated approach to internationalization has recently been reported in the literature. Consequently, the internationalization of small firms encompasses several dimensions, including the firm's stimuli for engaging in overseas markets, attitudes toward international competitiveness based on internal and external constraining issues, and the process or development in international markets resulting from such factors (4).

The integrated model developed in this research provides an empirical step forward for understanding the role of an Internet strategy in overcoming export barriers. The variables for exploring Internet strategy draw from multiple activities, including outward looking Internet usage, online network participation, and web presence. Central to the model are internal and external realities of the firm, representing the dynamic and interactive nature of business in general and export in particular. The model also demonstrates a relationship with export performance, thus providing a complete view of the firm. Future empirical work testing the hypotheses of Section 6.1.2 will continue to advance the theory of this research and the greater body of research.

For managers, in addition to understanding some of the drivers of performance, specific online strategies for export barriers provide management direction. Website benchmarks, online practices and new Web 2.0 activities will add tools to the toolkit for SME owners and managers. Perhaps the most important contribution, though, is understanding the link between attitude and behaviour. Those firms that have at least

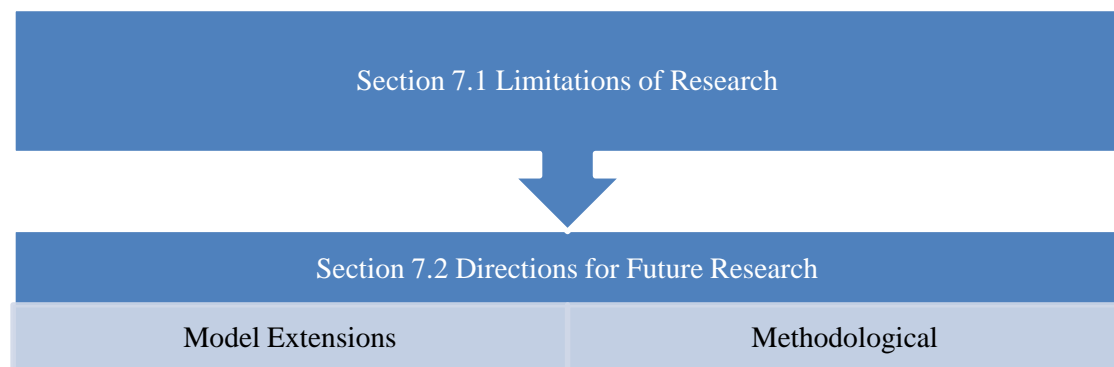
one champion with a “can do” online orientation appear to successfully implement the benefits of the Internet more effectively than firms which are unaware or ignorant of these benefits.

While this research extends the body of knowledge about export, SMEs and online strategy, there are some qualifications that should be highlighted pertaining to these findings. This is the focus of Chapter Seven.

## Chapter Seven: Conclusions and Directions for Future Research

### 7.0 Introduction

The findings of the previous chapter are based on a mixed methods approach to collecting and analyzing data. The results yielded a model which integrates qualitative and quantitative inputs. The model and results link export and internet strategy to performance, notable given the paucity of empirical, integrated performance-oriented models. The results are timely, in that findings about the role of emerging Web 2.0 practices are provided. In addition to advancing theory, this research advances export best practices with managerial suggestions for SME exporters. Especially given the special and pivotal role of owner/managers, both in terms of attitude and activity, this in itself is a contribution. Yet, for all of these findings, this study should be evaluated for its limitations and opportunities for future research exist. This will be considered in full in the following chapter. The structure of the chapter is presented in Figure 14 Overview of Chapter Seven below:



*Figure 14.* Overview of Chapter Seven

### 7.1 Reflections on Methodology and Analysis

Several research limitations should be noted when considering this research. The limitations will be considered in two broad groups; methodological and analysis.

### 7.1.1 Methodology

There are limitations associated with the methodology used. There can be little claim about generalizations because the sample size is too small to demonstrate statistically confident representation about the greater population (Salant and Dillman, 1994, 17). In other words, while the model developed represents the study's respondents, the sample size is too small to claim or expect the model represents the whole population of Canadian SME exporters. As exploratory research, however, this was not the intention. The analysis did address existing limitations noted in the literature, particularly regarding the application of Internet research to exporting, the development of an integrated model, and the use of mixed methodology.

The sampling procedure precluded some Canadian SME exporters from participating. The two databases from which the respondents were drawn do not contain the entire population of targeted firms. In combination with the decision to use judgment sampling, used to select a broad geographic, industrial and size representation, every firm in the population did not have an equal or known chance of being selected for the sample. Of the firms that did fall within the sampling procedure, there remain questions about non-responses error; that is, the missed contribution of target respondents who choose not to or could not contribute to the study. To some degree the EDC-initiated invitations may have gone unnoticed by potential respondents. CCC-database firms were randomly but specifically targeted with several forms of contact, but time constraints limited personal contact which may have stimulated more responses. In hindsight, it appears the benefits obtained by generating multiple data points per respondent were offset by the small sample of respondents. There was

fairly good success in encouraging respondents to complete the survey when follow-up contact was used. In the future, more effort in this regard seems appropriate.

The definition of the target population may benefit from review. While the internationalization literature considers small and medium-sized firms collectively, it is possible if not probable that micro-exporters and medium-sized exporters have distinct experiences when it comes to export and Internet activity. Future studies may wish to clearly define these groups.

The potential for measurement error always exists. In the case of the open-ended survey questions, some blank or one-word answers suggest at least some misunderstanding of the question may have existed. Without the interaction that enables a researcher to delve into the heart of the matter, a survey question may result in a response that is inaccurate, imprecise or cannot be compared in any useful way to other respondents' answers (Salant and Dillman, 1994). Measurement error relates to validity and in this case the respondents' understanding of what is being asked and his/her ability to respond. While this kind of error can be mitigated with a standardized instrument, it should be recognized that in both the closed and open-ended questions the data generated will present limitations to the validity of the study.

Further to this point, Blackburn and Stokes (2001) emphasize the importance of investigating the behavioural and process-nature of SMEs. It cannot be argued this research achieves much headway in this regard. While the mixed method approach provides a rich, multivariate picture of the firms, it does not address the complex internal reality Blackburn and Stokes have in mind. This is, however, part of the



pragmatic reality of research. Every project involves trade-offs regarding population sample and methodological access. Given the state of Canadian SME exporters' use of the Internet literature, the mixed methods approach using surveys and website evaluations was a step forward. The intensive data generated by interviews, for example, would also help shed light on the nature of this topic, particularly in emerging areas such as the role of Web 2.0 and exports. To this point, the numeric consideration of online business network intensity provides a basic view of some firms' Web 2.0 activity, but does not reveal attitudes, behaviour or themes of any sort. This will, however, be given further consideration in the directions for future research.

One notable area for methodological review is the website evaluation instrument. There are several limitations to consider. Website evaluations focused on the public "front" and did not evaluate password-protected areas that provide a customer-specific experience. Opportunities to dig deeper may produce new and/or better findings germane to the research. Website evaluation is inherently subjective. The rating of these websites was more about categorizing sites based on evidence presented, a transparent identification of evidence based on criteria, the observation of which can be verified. However, the quantitative and qualitative data generated reflect the evaluator's bias as to what is and is not a good website. While the process was structured to minimize this bias, and supporting observations demonstrating the evidence by which the numeric rating was obtained were documented, the analysis must be considered with full regard of the researcher conducting the evaluation. The nature and practice of rating is at issue here. This process would be more robust with multiple evaluations per site and/or by using (multiple) customer evaluations. Styles

et al (2009) note the benefits of dyadic research pertaining to SME internationalization, benefits which may well be applicable to website evaluation of exporters. More attention to capturing documented evidence is another area of improvement. Screen captures were not taken and maintained for later verification or review. Websites change and with it the evidence culled for the evaluation.

## **7.2 Opportunities for Further Research**

For all the limitations described above, there are many directions for further research. Two main opportunities will be considered here; extensions to theory and to the methodology.

### **7.2.1 Extensions to Model**

The theory of this model merits further investigation. This study reports on the link between the Internet and export in general. More intensive investigation into sub-areas would add to the understanding of this topic. Market selection and mode of entry are central factors of an export strategy each meriting further investigation regarding the path model. While the export initiation decision was not considered in this research it is certainly relevant. Analysis focusing on specific export barriers and the export strategies noted above should be explored. Further work about this topic would likely make a constructive addition to the model and to theory building in general. More attention should be given to the interactive experience of websites and the internationalization of websites at least. The peer-to-peer experience, especially peer-generated content relative to export, is an area of particular interest. In general, the role of Web 2.0 relative to export appears to be an important, emerging field. Future models should consider adding layers in light of Etemad's (2004) position. What are the theoretical implications to SME Network theory, internationalization

and individual Web 2.0 platforms such as LinkedIn, Facebook, YouTube and others? How do or might SMEs use these networks to develop export strategies, address export barriers and achieve export results? The model of this research focuses on marketing, yet the export barriers identified by Leonidou (2004) would lend themselves nicely to finance and operations-based analysis.

### 7.2.2 Methodology

In terms of methodology, several opportunities exist. Given the hypotheses and opportunities for Structural Equation Modeling developed in Section 6.1.2. it would appear a next step would be to test the relationships. Given Edmondson and McManus' (2007) assessment of the stages of theory development, SEM and hypothesis testing could support later intermediate theory development towards mature theory development.

The model emerged from a cross-section of Canadian firms. It would be informative to narrow the scope of investigation by industry, target export market, or firm size, especially with a larger sample size. The model would also benefit from application to other SME exporters, whether in fairly comparable American or European regions, or in the emerging field of developing country export research. MacCallum (1995), Hu and Bentler (1995), Marsh and Hau (1999) and Garson (2009) all suggest models generated from small sample studies should be validated with a new data sample. Fundamental differences may be identified regarding the organization, market and/or external factors.

To address the issues of sampling, a larger scale study of more Canadian SMEs appears obvious. With the input of a better sample of the population steps can be

taken toward reducing the presence of relationships emerging from chance alone (MacCallum, 1995) and extending the generalizability of the model and findings to the greater population. Measurement error could also be addressed with the website evaluation suggestions noted above, including instrument review by a Delphi panel, criterion weighting, multiple evaluations per site, and possibly dyadic research involving customers, suppliers, partners, etc.

The results of this thesis were generated using mixed methods. There are several recommendations for methodological development. The current research used open-ended questions regarding export barriers and the role of the Internet. Any future quantitative study should consider structuring the identification of the barriers, perhaps using Leonidou's (2004) study, their intensity and the timing of the barriers, matched to Internet activity and their efficacy in addressing the barriers. This would provide a more structured approach to linking the Internet and export barriers and contribute to the validity and reliability of data generation.

Given Blackburn and Stokes (2001) concerns about using methods to dig down into the inner workings of SMEs, a Web 2.0 extension of this study would benefit from more qualitative understanding of the phenomena in question. As a means of validating or refuting these outcomes, intensive data collection will enlighten the SME perspective of the role of the Internet in supporting exports. For example, how do SME exporters use online business networks to support exports? What role does peer-generation serve exporters' websites? Can hosting online forums mitigate external barriers? Beyond in-depth theme investigation, there are several opportunities for longitudinal study.

Tracking the evolution of websites and the link to exports is particularly inviting. Repeated observations of participants' websites would generate helpful data regarding exporters' online strategies, how these strategies evolve over time, and how the sites are related to export performance. Following Tiessen et al (2001), more work needs to be done to understand the influence of website internationalization. Online activities like virtual business networks represent great opportunities for international market research, foreign representation, and promotion.

Based on the body of research, the findings of this study, and the abundance of research opportunities, the way forward looks promising for scholars and managers alike.

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## Appendix 1

### Summary of Export Barriers

---

	Very High Impact
a)	limited information to locate/analyze market
b)	inability to contact overseas customers
c)	identifying foreign business opportunities
d)	difficulty in matching competitors' prices
e)	excessive transportation / insurance costs
f)	different foreign customer habits / attitudes
g)	poor / deteriorating economic conditions abroad
h)	political instability in foreign markets
	High Impact
i)	offering satisfactory prices to customers
j)	accessing export distribution channels
k)	obtaining reliable foreign representation
l)	granting credit facilities to foreign customers
m)	unfamiliar exporting procedures / documentation
n)	unfavourable home rules and regulations
o)	foreign currency exchanges risks
p)	strict foreign rules and regulations
	Moderate Impact
q)	problematic international market data
r)	lack of managerial time to deal with exports
s)	inadequate untrained personnel for exporting
t)	shortage of working capital to finance exports
u)	providing technical after sales service
v)	complexity of foreign distribution channels
w)	adjusting export promotional activities
x)	problematic communication with overseas customers
y)	slow collection of payments from abroad
z)	lack of home government assistance/incentives
aa)	keen competition in overseas markets
ab)	high tariff and nontariff barriers
ac)	unfamiliar foreign business practices
ad)	different sociocultural traits
	Low Impact
ae)	meeting export product quality standards/specs
af)	lack of excess production capacity for exports
ag)	verbal/nonverbal language differences
	Very Low Impact
ah)	developing new products for foreign markets
ai)	adapting export product design/style
aj)	meeting export packaging/labelling requirements
ak)	maintaining control over foreign middlemen
al)	difficulty in supplying inventory abroad
am)	unavailability of warehousing facilities abroad
an)	Other

---

Source: Leonidou, L.C. (2004). "An analysis of the barriers hindering small business export development". *Journal of Small Business Management*; 42(3): 279-302.

## Appendix 2

### Literature-based Website Evaluation Criteria

Reference	Criteria
Everhart (1996)	Currency, content/information, authority, navigation, experience, multimedia, treatment, access, miscellaneous
Sullivan (1996)	Clarity of communication, accessibility, navigation, design and maintenance, visual presentation
Surveysite (1996)	Content, graphics, visual attractiveness, uniqueness, effective selling message, links, chat rooms, registration forms, search engine, audio
Kubly (1997)	Accuracy, authority, objectivity, currency, coverage
Murray and Rizzolo (1997)	Authority, currency/updatedness and stability, accuracy and comparability, workability, purpose, nature of user
Reinken Information Solutions (1997)	Superstructure, graphics, use of color, content, readability, page layout, hyperlinks, promotion
Smith (1997)	Scope, content, graphic and multimedia design, purpose, reviews, workability, cost
Wilkinson et al. (1997)	Site access and usability, resource identification and documentation, author identification, authority of author, information structure and design, relevance and scope of content, accuracy and balance of content, navigation, quality of the links, aesthetic and affective aspects
Yahooligans (n.d.)	Accessibility, accuracy, appropriate, appealing
Alexander and Tate (1999)	Authority, accuracy, objectivity, currency, coverage
Alper (1999)	Ease of use, information content, entertainment value, interactivity
Gehrke and Turban (1999)	Page loading, business content, navigation efficiency, security, marketing/customer focus
McLachlan (1999)	Speed, first impression, ease of site navigation, use of graphics/sounds/videos, content/information, currency, availability of further information
Tillman (1999)	Criteria for inclusion of information, authority of author or creator, comparability with related sources, stability of information, appropriateness of format, software/hardware/multimedia requirement
Byrne (2000)	Publisher/author, structure/navigation, content, links, integrity/access
Grassian (2000)	Content and evaluation, source and date, structure, other
Hagerty Library (2000)	Authority, accuracy, objectivity, currency, coverage/intended audience
Hong and Jeong (2000)	Design, business function, reliability, interface, technology, community, contents
Kim and Kang (2000)	Corporation information, product/service information, information update, information reliability, quality of system, performance of system, design, navigation, mutual relation, amusement
Prorak (2001)	Authority, purpose, audience, content, accuracy/objectivity, currency, summary
Sinha et al. (2001)	Content, structure and navigation, visual design, functionality, interactivity, overall experience
Waller (2001)	Impression on first entry; the homepage is exciting, interesting, attention-grabbing; the homepage contains the key facts; shopping experience; back office support; links are clear and meaningful; the whole site has a structure; all the pages obey the same rules; long Web pages have their own structure; all Web pages have a reference; useful external links are provided; the Web site achieves its purpose; browser compatibility and accessibility

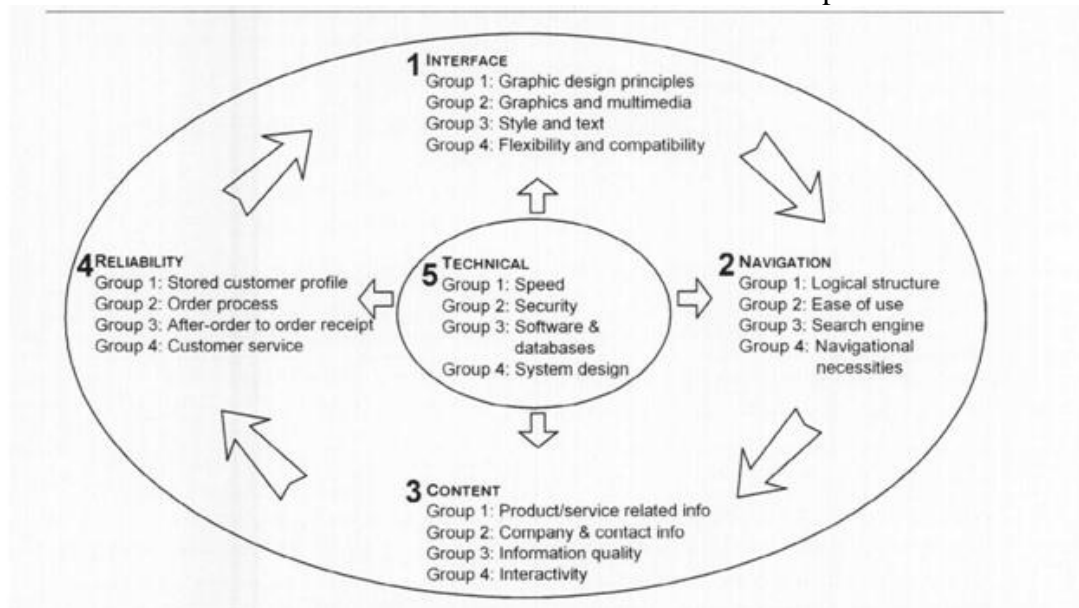
Source: Kim, Sung-Eon. Shaw, Thomas. Schneider, Helmut. (2003). "Web site design benchmarking within industry groups". *Internet Research*. 13(1); 17-26.



## Appendix 3

### Website Evaluation Framework

#### E-commerce Web site Evaluation Framework and Criteria Groups



Source: Merwe, R. Bekker, J. (2003). "A framework and methodology for evaluating e-commerce web sites". Internet Research; 13(5): 330-341.

## Appendix 4

### Website Evaluation Criteria

#### Description of E-commerce Web site Evaluation Criteria Groups

Phase	Criteria group	This criteria group evaluates/measures
<b>Interface</b>	Graphic design principles	The effective use of colour, text, backgrounds, and other general graphic design principles
	Graphics and multimedia	The effectiveness of the graphics and multimedia used on the site
	Style and text	Whether or not the text is concise and relevant, and the style good
	Flexibility and compatibility	The degree to which the interface is designed to handle exceptions, for example, text-only versions of pages
<b>Navigation</b>	Logical structure	The organisation and menu system of the site
	Ease of use	The ease of navigation to find the pages that the user is looking for
	Search engine	The search engine's ability to find the correct pages easily and provide clear descriptions of the search results
	Navigational necessities	Other important aspects of navigation like the absence of broken links and "under-construction" pages
<b>Content</b>	Product/service-related information	Whether or not the products/services are described precisely and thoroughly
	Company and contact information	Whether or not it is easy to find information on the company, its employees and its principals
	Information quality	The currency and relevance of the content on the site
	Interactivity	How much input the user has on the content displayed on the site
<b>Reliability</b>	Stored customer profile	The registering process and how the company uses the stored customer profile
	Order process	The effectiveness and ease of use of the online order process
	After-order to order receipt	The company's actions from order placement until the order is delivered
	Customer service	How the company communicates and helps its online customers
<b>Technical</b>	Speed	Different aspects of the loading speed of the site
	Security	Security systems and the ways used by the company to protect customers' privacy on the site
	Software and database	Flexibility in terms of different software used. Also looks at the data software and data communication systems used on the site
	System design	The correct functioning of the site and how well it integrates with internal and external systems

Source: Merwe, R. Bekker, J. (2003). "A framework and methodology for evaluating e-commerce web sites". *Internet Research*; 13(5): 330-341.

## Appendix 5

### Survey Instrument

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#### 1. Introduction (Part 1 of 6)

Thank you for taking the time to complete this Export survey. This is very much appreciated.

The survey includes questions about your company's experience with exporting and using the Internet to overcome export barriers. In addition to this introductory section there are four sections with a total of 30 questions as well as a brief concluding section. It should take you 20 minutes to complete. If there are questions you prefer not to answer just skip ahead to the next question.

Your responses are confidential. I am the only person who has access to this data, which I will keep in a protected database. Please do not hesitate to contact me if you have any questions or further comments.

Click the "Next" button to continue with the survey.

Thank you,  
Neil Maltby  
(902) 867-3756  
nmaltby@stfx.ca

---

#### 2. General Information about your Business (Part 2 of 6)

1. What is the name of your company?

2. What is your position in the business? Please select more than one option if appropriate.

- a Founder
- b Owner
- c Partner
- d Director/Senior Executive
- e Manager
- f Export Manager
- g Internet Manager
- h Other

3. How long have you worked for this company?

- 0 No response
- 1 Less than one year
- 2 One-two years
- 3 Three-Five years
- 4 Six-Ten years
- 5 More than ten years

4. What was the approximate year of establishment of the company?

- 0 No response
- 1 Before 1950
- 2 1951-1970
- 3 1971-1980
- 4 1981-1990

- |   |              |
|---|--------------|
| 5 | 1991-1995    |
| 6 | 1996-2000    |
| 7 | 2000-present |

5. Approximately how many employees do you have?

- |   |                           |
|---|---------------------------|
| 0 | No response               |
| 1 | One – ten                 |
| 2 | Eleven - Twenty-five      |
| 3 | Twenty-six - Fifty        |
| 4 | Fifty-one - Seventy-five  |
| 5 | Seventy-six - One hundred |
| 6 | More than one hundred     |

6. Approximately what sales revenue did your firm generate in the most recent year?

- |   |                         |
|---|-------------------------|
| 0 | No response             |
| 1 | 1 - 500,000             |
| 2 | 501,000 - 1,000,000     |
| 3 | 1,000,001 - 2,000,000   |
| 4 | 2,000,001 - 5,000,000   |
| 5 | 5,000,001 - 10,000,000  |
| 6 | 10,000,001 - 20,000,000 |
| 7 | More than 20,000,000    |

7. Which of the following best describes the primary industry of your business? (coded by NAICS)

8. Please describe or list the main products and services your company offers.

### 3. Exporting and your Business (Part 3 of 6)

9. In approximately what year did your business start exporting?

10. Why does your business export?

- |   |   |
|---|---|
| a | Increase sales                            |
| b | Diversify markets                         |
| c | Niche producer                            |
| d | Achieve economies of scale                |
| e | Respond to unsolicited request            |
| f | Exploit competitive advantage             |
| g | Excess capacity                           |
| h | Excess inventory                          |
| i | Learn about foreign markets               |
| j | Pre-empt/respond to competition           |
| k | Declining domestic market                 |
| l | Motivated by customers, suppliers, agents |
| m | Trade show participation                  |
| n | Declining currency valuation              |

11. How many employees in your firm work mainly at exports?

12. How many employees in your firm use the Internet to support exports?

13. Do you have an export / international marketing department?

- |   |     |
|---|-----|
| 1 | Yes |
|---|-----|

- 2 No
- 3 Other

14. Does your company have an export or international marketing manager?

- 1 Yes
- 2 No
- 3 Other

15. What percentage of total sales are generated by exports including the United States?

- 1 One - ten
- 2 Eleven - twenty
- 3 Twenty-one - Thirty
- 4 Thirty-one - Fifty
- 5 Fifty-one - Seventy-five
- 6 Seventy-six - One hundred

16. Of your total exports, approximately what percentage comes from each of the following?

- a) U.S. Customers
  - 1 1-10% U.S.
  - 2 11-25% U.S.
  - 3 26-50% U.S.
  - 4 51-75% U.S.
  - 5 76-100% U.S.
- b) European Customers
  - 1 1-10% Europe
  - 2 11-25% Europe
  - 3 26-50% Europe
  - 4 51-75% Europe
  - 5 76-100% Europe
- c) Asian Customers
  - 1 1-10% Asia
  - 2 11-25% Asia
  - 3 26-50% Asia
  - 4 51-75% Asia
  - 5 76-100% Asia
- d) Rest of World Customers
  - 1 1-10% Rest of World
  - 2 11-25% Rest of World
  - 3 26-50% Rest of World
  - 4 51-75% Rest of World
  - 5 76-100% Rest of World

17. Which of the following best describes your export sales from last five years

- 1 Export sales have decreased
- 2 Export sales have remained steady
- 3 Export sales have increased slightly
- 4 Exports sales have grown at an increasing rate

18. How Important are the following Export Channels to your Company

a) Domestic Trading Houses

- 1 Not used
- 2 Moderately Important -- used occasionally
- 3 Important -- routinely used

b) Distributors

- |   |   |   |
|---|---|---|
|   | 1 | Not used                                  |
|   | 2 | Moderately Important -- used occasionally |
|   | 3 | Important -- routinely used               |
| c) Agents                                 |   |   |
|   | 1 | Not used                                  |
|   | 2 | Moderately Important -- used occasionally |
|   | 3 | Important -- routinely used               |
| d) Overseas sales and distribution office |   |   |
|   | 1 | Not used                                  |
|   | 2 | Moderately Important -- used occasionally |
|   | 3 | Important -- routinely used               |
| e) Joint Venture                          |   |   |
|   | 1 | Not used                                  |
|   | 2 | Moderately Important -- used occasionally |
|   | 3 | Important -- routinely used               |
| f) Foreign Direct Investment              |   |   |
|   | 1 | Not used                                  |
|   | 2 | Moderately Important -- used occasionally |
|   | 3 | Important -- routinely used               |

19. Which of the following best describes your export objective

- |   |   |
|---|---|
| 1 | Export is not important to our current and future objectives          |
| 2 | Export is somewhat important to our current and future objectives     |
| 3 | Export is of moderate importance to our current and future objectives |
| 4 | Export is important to our current and future objectives              |
| 5 | Export is very important to our current and future objectives         |

20. Which of the following statements best describes your export sales projections

- |   |  |
|---|--|
| 1 | Export sales will decrease                   |
| 2 | Export sales will remain steady              |
| 3 | Export sales will increase slightly          |
| 4 | Export sales will grow at an increasing rate |

21. Which statement best describes senior management's involvement with exports

- |   |  |
|---|--|
| 1 | Senior management is not involved with managing exports      |
| 2 | Senior management is somewhat involved with managing exports |
| 3 | Senior management is involved with managing exports          |
| 4 | Senior management is actively involved with managing exports |

#### 4. Exporting and the Internet (Part 4 of 6)

22. Has your firm encountered export barriers (e.g. difficulty obtaining local agents/distributors market research, foreign regulations, communicating with customers, etc?) Please specify.

23. Has the Internet helped you overcome these barriers? How?

24. Which of the following statements best describes the impact of the Internet regarding your exports

- 1 Not important
- 2 Slightly important
- 3 Moderately important
- 4 Important
- 5 Critically important

25. How important is your website in supporting your exports? Please describe.

26. How important is the Internet in supporting the following marketing activities

a) Researching foreign markets

- 1 Not important
- 2 Slightly important
- 3 Moderately important
- 4 Important
- 5 Critically important

b) Evaluating potential customers

- 1 Not important
- 2 Slightly important
- 3 Moderately important
- 4 Important
- 5 Critically important

c) Obtaining agents or distributors

- 1 Not important
- 2 Slightly important
- 3 Moderately important
- 4 Important
- 5 Critically important

d) Communicating with customers

- 1 Not important
- 2 Slightly important
- 3 Moderately important
- 4 Important
- 5 Critically important

e) Promotion and sales

- 1 Not important
- 2 Slightly important
- 3 Moderately important
- 4 Important
- 5 Critically important

27. How important is the Internet in supporting the following finance activities

a) Managing foreign exchange risk

- 1 Not important
- 2 Slightly important
- 3 Moderately important
- 4 Important
- 5 Critically important

b) Arranging payment

- 1 Not important
- 2 Slightly important
- 3 Moderately important

	4	Important
	5	Critically important
c) Slow collection of payment	1	Not important
	2	Slightly important
	3	Moderately important
	4	Important
	5	Critically important
d) Insurance	1	Not important
	2	Slightly important
	3	Moderately important
	4	Important
	5	Critically important
e) Granting credit to foreign customers	1	Not important
	2	Slightly important
	3	Moderately important
	4	Important
	5	Critically important
f) Financing export working capital	1	Not important
	2	Slightly important
	3	Moderately important
	4	Important
	5	Critically important

28. How do you promote your website in foreign markets?

- a) Email
- b) Register on search engines
- c) Create links on other websites
- d) Create pop-up ads on other websites
- e) Offline promotion
- f) Other

29. What are the main barriers to more proactive use of the Internet?

a) High costs to initiate	1	Not a barrier
	2	Barrier
	3	Considerable barrier
b) High costs to maintain	1	Not a barrier
	2	Barrier
	3	Considerable barrier
c) Lack of IT/web skills	1	Not a barrier
	2	Barrier
	3	Considerable barrier
d) Lack of management commitment	1	Not a barrier
	2	Barrier
	3	Considerable barrier
e) Poor results		



	1	Not a barrier
	2	Barrier
	3	Considerable barrier
f) Customer resistance	1	Not a barrier
	2	Barrier
	3	Considerable barrier
g) Supplier resistance	1	Not a barrier
	2	Barrier
	3	Considerable barrier
h) Difficulty getting good external advice	1	Not a barrier
	2	Barrier
	3	Considerable barrier
i) Difficulty finding a web design company	1	Not a barrier
	2	Barrier
	3	Considerable barrier
j) Concerns re: security problems	1	Not a barrier
	2	Barrier
	3	Considerable barrier
k) Concerns re: fraud	1	Not a barrier
	2	Barrier
	3	Considerable barrier
l) Not appropriate for business	1	Not a barrier
	2	Barrier
	3	Considerable barrier

## 5. Your Future Objectives (Part 5 of 6)

30. What are you objectives for the next two years?

- 0 No response
- 1 Grow rapidly
- 2 Grow moderately
- 3 Remain about the same
- 4 Downsize the business
- 5 Sell the business
- 6 Close the business
- 7 Hand on the business (succession)
- 8 Other

## 6. Conclusion (Part 6 of 6)

Thank you very much for participating in this research project. Your responses will help develop a better understanding of the role of the Internet and small business export success. If you would like an executive summary of the findings of this report please indicate below.

Sincerely,  
Neil Maltby

31. Would you like an executive summary of the findings of this report?

---

## Appendix 6

### Website Evaluation Instrument

<b>Company Name:</b>		<b>URL:</b>
		Date:
<b>Criteria</b>	<b>Rating</b>	<b>Comments</b>
<b>Objectives</b>		
1. Objectives		<b>Objectives may include:</b> -Disseminate information about company and products; -market and promote company to wider audience; -acquire new customers; -provide enhanced levels of service to existing customers; -build strong '1-to-1' relationships with key customers; -to reduce costs and improve operational efficiency; -to expand into new product markets; -to internationalize; -to support staff in becoming more digital; -cost effective marketing; -to provide online customer service (online inquiries, FAQ, technical support),
<b>Customer-led Content</b>		
2. Customized Content		<b>Customized content may include:</b> -Evidence of segmentation/segmented content to clients. -Information about products, benefits, specs, links, downloads, customer service -Information about the company, management, experience, projects, locations, timelines, associations -Quality of content (technical, specs and references) -Building '1-to-1' loyal relationships -Leveraging up and cross selling opportunities
3. International Adaptability		<b>Internationalization of website may include:</b> -Adaptation (language, terminology, customized target marketing, international codes and contacts, currency listings and/or converter, international aesthetics or graphics)

		-International experience (past projects, timeline, market experience, management experience, certification, awards) -Products/service customization -Communication (international news, contacts, channel information, int'l terminology and statements, trade shows)
4. Customer Interactivity		<b>Customer interactivity may include:</b> -Customer self service and experience (site search, FAQs, downloads, interaction, research availability, wikis) -Customer feedback / dialogue with multi-channel contact options, RSS feeds -Customer profile option -Customer-customer exchange of ideas (online forums, user post board, recommendation service to colleagues)
5. Marketing Interactivity		<b>Marketing interactivity may include:</b> -Effective Product Promotion (function, benefits, solutions, technical specs) -Pricing, purchase availability, terms, delivery, warranties, etc -Retail, distributor, etail information, sales personnel info -General promotion (Linking, hubs, banner advertising) -Collect information about prospective customers (research) -General Communication (company information, current news, testimonials, client list, newsletters, news link)
<b>Accessibility</b>		
6. Site Navigation		Clear, clean, consistent site easy to navigate
7. Visual Impact and Design		<b>Visual impact based on design</b> <ul style="list-style-type: none"> <li>• Balance (symmetry, asymmetry of presentation)</li> <li>• Proportion (space accorded elements)</li> <li>• Movement/Order (gaze sequence resulting from size, white space, colour, positioning, animation, pointers, boxes, lines, arrows, devices)</li> <li>• Emphasis (primary focus)</li> <li>• Unity (singular harmony resulting from elements tied together)</li> </ul> <b>Visual impact based on design tools</b> <ul style="list-style-type: none"> <li>• Size</li> <li>• Colour (represent, emphasis, support context, guide movement order, provide balance)</li> </ul>

		<ul style="list-style-type: none"> <li>• Medium (imagery like photos, graphics, drawing)</li> </ul>
8. Technological Functionality		<b>Accessibility of site in terms of:</b> -download time, -browser compatibility, -working links, -document downloads, -animation functionality
9. Transactions		<b>Evidence of transaction orientation:</b> -Online sales capability, third party assurance, customer accounts, customized profile, with preferences, history -Pricing, information about payment, terms and conditions, shipping norms, foreign exchange info, Stock information, Quantity available -Sales rep contact information, agents, distributors -Sales news -Credit application form -Request a quote form
<b>Manageable</b>		
10. Content Management System + HR Organization		<b>Evidence of content management:</b> -Use of content management system (e.g. active server protocol) – well managed -Current (news page) -Terms of use, -legal statement -privacy statement -Author
<b>Total</b>		

## Appendix 7

### General Survey Data

#### Number of Employees

		Frequency	Percent	Cumulative Percent
Valid	No Response	2	2.4	2.4
	One-ten	20	24.1	26.5
	Eleven-Twenty-five	13	15.7	42.2
	Twenty-six-Fifty	14	16.9	59.0
	Fifty-one-Seventy-five	7	8.4	67.5
	Seventy-six-One hundred	8	9.6	77.1
	More than one hundred	19	22.9	100.0
	Total	83	100.0	

To obtain descriptive stats a continuous interval scale variable was created. This was created by taking the midpoint of the ordinal scale for each respondent. For example, if a respondent indicated his/her firm had 51-75 employees, a midpoint of 63 was estimated and input in the new interval scale variable. For the 19 firms in the “More than 100” category an input of 175 was used. This interval was estimated based on secondary Canadian Companies Capabilities database figures. Based on this new variable the average size of responding firms is 66.1 employees. The distribution for this revised variables follow:

#### Revised Number of Employees Using Midpoint Range

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6.00	20	24.1	24.7	24.7
	18.00	13	15.7	16.0	40.7
	38.00	14	16.9	17.3	58.0
	63.00	7	8.4	8.6	66.7
	88.00	8	9.6	9.9	76.5
	175.00	19	22.9	23.5	100.0
	Total	81	97.6	100.0	
Missing	.00	2	2.4		
Total		83	100.0		

### Descriptive Statistics for Revised Number of Employees Using Midpoint Range

N	Valid	81
	Missing	2
Mean Number of Employees		66
Std. Error of Mean		7.2
Median		38
Mode		6
Range of Employees		169
Minimum number of Employees		6
Maximum number of Employees		175

### Revenue

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-500,000	10	12.0	13.2	13.2
	500,001-1,000,000	3	3.6	3.9	17.1
	1,000,001-2,000,000	11	13.3	14.5	31.6
	2,000,001-5,000,000	7	8.4	9.2	40.8
	5,000,001-10,000,000	15	18.1	19.7	60.5
	10,000,001-20,000,000	10	12.0	13.2	73.7
	More than 20,000,000	20	24.1	26.3	100.0
	Total	76	91.6	100.0	
Missing	No response	7	8.4		
Total		83	100.0		

A continuous interval scale variable was created by taking the midpoint of the ordinal scale for each respondent. For example, if a respondent indicated his/her firm had revenues of \$1,000,000 – 2,000,000 a midpoint range of \$1,500,000 was estimated and input in the new interval scale variable.

However, this creates a challenge for firms indicating revenues of “More than \$20,000,000”, as this create a limitless ordinal variable. For the 20 firms in the “More than \$20,000,000” category, revenue data from Canadian Companies Capabilities (CCC) database was used (where available) to estimate the firms’ revenue. The CCC database uses a slightly different scale so some further assumptions were needed. The scale offers the following ranges:

\$1 - 99,999  
 100,000 - 199,999  
 200,000 - 499,999  
 500,000 - 999,999  
 1,000,000 - 4,999,999  
 5,000,000 - 9,999,999  
 10,000,000 - 24,999,999  
 25,000,000 - 49,999,999  
 50,000,000-\$100,000,000

Based on a comparison of survey respondents and CCC data there were no firms in the \$50,000,000 – 100,000,000 category. Therefore the relevant CCC revenue ranges for the 20 survey respondents are:

5,000,000 - 9,999,999  
 10,000,000 - 24,999,999  
 25,000,000 - 49,999,999

On a case by case basis estimations were made assumptions documented below. To ensure anonymity the firm's NAICS code was used or in the absence a title "Anonymous 1" etc.

Revenue Estimates for Survey Respondents indicating Revenues > \$20,000,000			
NAICS	CCC revenue (abbreviated)	Estimated new variable	Comments
336340	5-9m	20,000,001	Since CCC data is considerably less, the new variable estimate is conservative
335311	25-49m	37,000,000	Midpoint range of CCC
331614	25-49m	37,000,000	Midpoint range of CCC
335120	10-24m	22,500,000	Midpoint of 20 - CCC category maximum range
334210	10-24m	22,500,000	Midpoint of 20 - CCC category maximum range
Anon 1	N/A	22,500,000	Conservative estimate based on midpoint of 20 - CCC category maximum range
Anon 2	N/A	22,500,000	Conservative estimate based on midpoint of 20 - CCC category maximum range
541310	5-9m	20,000,001	Since CCC data is considerably less, the new variable estimate is

333120	10-24m	22,500,000	conservative Midpoint of 20 - CCC category maximum range
311940	25-49m	37,000,000	Midpoint range of CCC
511210	N/A	22,500,000	Conservative estimate based on midpoint of 20 - CCC category maximum range
336990	10-24m	22,500,000	Midpoint of 20 - CCC category maximum range
334410	N/A	22,500,000	Conservative estimate based on midpoint of 20 - CCC category maximum range
333220	10-24m	22,500,000	Midpoint of 20 - CCC category maximum range
333110	5-9m	20,000,001	Since CCC data is considerably less, the new variable estimate is conservative
541710	N/A	22,500,000	Conservative estimate based on midpoint of 20 - CCC category maximum range
333416	10-24m	22,500,000	Midpoint of 20 - CCC category maximum range
336212	10-24m	22,500,000	Midpoint of 20 - CCC category maximum range
541510	25-49m	37,000,000	Midpoint range of CCC
541330	25-49m	37,000,000	Midpoint range of CCC

The average revenue for these 19 “More than \$20,000,000” firms is \$27,105,263.

Based on this new variable the average revenue of responding firms is \$10,832,237.

The distribution of all 83 respondents is:

#### Revised Revenue Using Midpoint Range

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	250000.00	10	12.0	13.2	13.2
	750000.00	3	3.6	3.9	17.1
	1500000.00	11	13.3	14.5	31.6
	3500000.00	7	8.4	9.2	40.8
	7500000.00	15	18.1	19.7	60.5
	15000000.00	10	12.0	13.2	73.7
	20000001.00	3	3.6	3.9	77.6
	22500000.00	12	14.5	15.8	93.4
	37000000.00	5	6.0	6.6	100.0
	Total	76	91.6	100.0	
Missing	.00	7	8.4		
Total		83	100.0		



#### Descriptive Statistics for Revised Revenue Using Midpoint Range

N	Valid	76
	Missing	7
Mean Revenue		\$10,832,236
Std. Error of Mean		1214598
Median		\$7,500,000
Mode		\$7,500,000
Std. Deviation		10588625.0
Range		\$36,750,000
Minimum		\$250,000
Maximum		\$37,000,000

For the seven missing firms the average revenue was used for the purposes of analysis.

#### Age of Firm (Year of Establishment)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Before 1950	3	3.6	3.6	3.6
	1951-1970	6	7.2	7.2	10.8
	1971-1980	12	14.5	14.5	25.3
	1981-1990	18	21.7	21.7	47.0
	1991-1995	18	21.7	21.7	68.7
	1996-2000	19	22.9	22.9	91.6
	2000-present	7	8.4	8.4	100.0
	Total	83	100.0	100.0	

A continuous interval scale variable was also created for the analysis of variance.

This was created by taking the midpoint of the ordinal scale for each respondent. For example, if a respondent indicated his/her firm had started in the 1971-1980 timeframe, a midpoint of 1975 was estimated and input in the new interval scale variable. For the 4 firms in the “Before 1950” category an input of 1930 was used for two firms and the specific starting dates of 1917 and 1906 were obtained for the others. Based on this new variable the average age of responding firms is 21.7 years. The distribution for this revised variables follow

### Revised Age of Firm (Year of Establishment)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1906.00	1	1.2	1.2	1.2
	1917.00	1	1.2	1.2	2.4
	1930.00	2	2.4	2.4	4.8
	1960.00	5	6.0	6.0	10.8
	1975.00	12	14.5	14.5	25.3
	1985.00	18	21.7	21.7	47.0
	1993.00	18	21.7	21.7	68.7
	1998.00	19	22.9	22.9	91.6
	2004.00	7	8.4	8.4	100.0
	Total	83	100.0	100.0	

### Revised Age of Firm:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.00	7	8.4	8.4	8.4
	9.00	19	22.9	22.9	31.3
	14.00	18	21.7	21.7	53.0
	22.00	18	21.7	21.7	74.7
	32.00	12	14.5	14.5	89.2
	47.00	5	6.0	6.0	95.2
	77.00	2	2.4	2.4	97.6
	90.00	1	1.2	1.2	98.8
	101.00	1	1.2	1.2	100.0
	Total	83	100.0	100.0	

### Descriptive Statistics for Revised Age of Firm

N	Valid	83
	Missing	0
Mean Age		21.7
Std. Error of Mean		2.0
Median		14.0
Mode		9.0
Std. Deviation		18.5
Range		98
Minimum Age		3
Maximum Age		101

For the eleven firms that did not respond, the average age was used for the purposes of analysis.

## Industry

The North American Industrial Classification System (NAICS) was used to identify industry. Twenty categories include:

- Agriculture, Forestry, Fishing and Hunting
- Mining
- Utilities
- Construction
- Manufacturing
- Wholesale Trade
- Retail Trade
- Transportation and Warehousing
- Information
- Finance and Insurance
- Real Estate and Rental and Leasing
- Professional, Scientific, and Technical Services
- Management of Companies and Enterprises
- Administrative and Support and Waste Management and Remediation Services
- Education Services
- Health Care and Social Assistance
- Arts, Entertainment, and Recreation
- Accommodation and Food Services
- Other Services (except Public Administration)
- Public Administration

### NAICS Industry Classification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture, Forestry, Fishing and Hunting	5	6.0	6.1	6.1
	Construction	1	1.2	1.2	7.3
	Manufacturing	12	14.5	14.6	22.0
	Manufacturing	1	1.2	1.2	23.2
	Manufacturing	27	32.5	32.9	56.1
	Wholesale Trade	2	2.4	2.4	58.5
	Retail Trade	4	4.8	4.9	63.4
	Information	2	2.4	2.4	65.9
	Professional, Scientific, and Technical Services	26	31.3	31.7	97.6
	Administrative, Support, Waste and Remediation Services	1	1.2	1.2	98.8
	Arts, Entertainment and Recreation	1	1.2	1.2	100.0
	Total	82	98.8	100.0	
Missing	No Response	1	1.2		
Total		83	100.0		

Industry sectors were assessed for 9 companies that did not provide their NAICS classification based on product descriptions provided by the firms. The distribution of responses can be characterized as generally primary/secondary industry firms (46) and supply chain and services firms (36).

### **Geographic Location of Respondents**

The distribution of respondents by Canadian Province is presented in the following table

#### Geographic Origin by Canadian Province

	Frequency	Percent	Cumulative Percent
Anon.	1	1.2	1.2
AB	1	1.2	2.4
BC	12	14.5	16.9
NB	4	4.8	21.7
NF	4	4.8	26.5
NS	3	3.6	30.1
On	1	1.2	31.3
ON	50	60.2	91.6
QE	3	3.6	95.2
SK	3	3.6	98.8
USA	1	1.2	100.0
Total	83	100.0	

## Appendix 8

### Type of Respondent Survey Data

#### Type of Respondent

Respondent Role	Number
Founder	32
Owner	29
Partner	10
Director/Senior Executive	33
Manager	21
Export Manager	14
Internet Manager	4
Other	7

Note: Respondents could indicate holding more than one position.

#### Distribution of Number of Roles in Firm

		Frequency	Percent	Cumulative Percent
Valid	1	47	56.6	56.6
	2	20	24.1	80.7
	3	8	9.6	90.4
	4	4	4.8	95.2
	5	2	2.4	97.6
	6	1	1.2	98.8
	7	1	1.2	100.0
	Total	83	100.0	

#### Descriptive Statistics of Number of Roles in Firm

N	Valid	83
	Missing	0
Mean Number of Roles in Firm		1.8
Minimum		1
Maximum		7
Sum of the Number of Roles Among all Respondents		150

#### Years Employed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than one year	6	7.2	7.2	7.2
	One-two years	7	8.4	8.4	15.7
	Three-five years	11	13.3	13.3	28.9
	Six-ten years	21	25.3	25.3	54.2
	More than ten years	38	45.8	45.8	100.0
	Total	83	100.0	100.0	

### Descriptive Statistics for Years Employed

N	Valid	83
	Missing	0
Mean Number of Years Employed		3.9
Std. Error of Mean		.139
Mode		5
Std. Deviation		1.2
Variance		1.5
Range		4
Minimum Number of Years Employed		1
Maximum Number of Years Employed		5

Note: the 'Mean' score of 3.9 indicates an average survey response of between item 3 (three-five years) and item 4 (six –ten years).

### Senior Management's Involvement with Exports

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	1	1.2	1.2	1.2
	Senior management is not involved with managing exports	1	1.2	1.2	2.4
	Senior management is somewhat involved with managing exports	7	8.4	8.4	10.8
	Senior management is involved with managing exports	17	20.5	20.5	31.3
	Senior management is actively involved with managing exports	57	68.7	68.7	100.0
	Total	83	100.0	100.0	

## Appendix 9

### Export Profile of Survey Respondents' Firms

#### Reasons for Exporting

Why does your business export? Please select all those options below that you consider to be important to your firm.

Answer Options	Response Percent	Response Count
Increase sales	95.3%	81
Diversify markets	77.6%	66
Niche producer	55.3%	47
Achieve economies of scale	30.6%	26
Respond to unsolicited request	23.5%	20
Exploit competitive advantage	31.8%	27
Excess capacity	5.9%	5
Excess inventory	2.4%	2
Learn about foreign markets	12.9%	11
Pre-empt/respond to competition	21.2%	18
Declining domestic market	23.5%	20
Motivated by customers, suppliers, agents	49.4%	42
Trade show participation	30.6%	26
Declining currency valuation	7.1%	6
<i>answered question</i>		85
<i>skipped question</i>		3

#### Distribution of Responses for Reasons for Exporting

		Frequency	Percent	Cumulative Percent
Valid	0	1	1.2	1.2
	1	2	2.4	3.6
	2	10	12.0	15.7
	3	14	16.9	32.5
	4	11	13.3	45.8
	5	18	21.7	67.5
	6	12	14.5	81.9
	7	4	4.8	86.7
	8	6	7.2	94.0
	9	2	2.4	96.4
	10	2	2.4	98.8
	11	1	1.2	100.0
	Total	83	100.0	

### Descriptive Statistics for Reasons for Exporting

N	Valid	83
	Missing	0
Mean Number of Reasons for Exporting		4.7
Std. Error of Mean		.245
Median		5
Mode		5
Std. Deviation		2.2
Range		11
Minimum Number of Reasons for Exporting		0
Maximum Number of Reasons for Exporting		11

### Years Exporting

		Frequency	Percent	Cumulative Percent
Valid	0	11	13.3	13.3
	1970	1	1.2	14.5
	1975	2	2.4	16.9
	1977	1	1.2	18.1
	1980	6	7.2	25.3
	1983	1	1.2	26.5
	1985	2	2.4	28.9
	1986	2	2.4	31.3
	1987	2	2.4	33.7
	1988	2	2.4	36.1
	1989	2	2.4	38.6
	1990	2	2.4	41.0
	1991	2	2.4	43.4
	1992	4	4.8	48.2
	1994	4	4.8	53.0
	1995	5	6.0	59.0
	1996	3	3.6	62.7
	1997	5	6.0	68.7
	1999	4	4.8	73.5
	2000	7	8.4	81.9
	2001	6	7.2	89.2
	2002	2	2.4	91.6
	2003	1	1.2	92.8
	2004	4	4.8	97.6
	2005	1	1.2	98.8
	2006	1	1.2	100.0
	Total	83	100.0	



### Descriptive Statistics for Years Exporting

N	Valid	72
	Missing	11
Mean Number of Years Exporting		14.6
Range		36
Minimum Number of Years Exporting		2
Maximum Number of Years Exporting		38

### Number of Export Employees

		Frequency	Percent	Cumulative Percent
Valid	0	6	7.2	7.2
	1	14	16.9	24.1
	2	7	8.4	32.5
	3	7	8.4	41.0
	4	7	8.4	49.4
	5	6	7.2	56.6
	6	1	1.2	57.8
	7	2	2.4	60.2
	8	2	2.4	62.7
	9	1	1.2	63.9
	10	3	3.6	67.5
	11	1	1.2	68.7
	15	2	2.4	71.1
	16	1	1.2	72.3
	20	1	1.2	73.5
	21	3	3.6	77.1
	30	19	22.9	100.0
	Total	83	100.0	

### Descriptive Statistics of Export Employees

N	Valid	83
	Missing	0
Mean Number of Export Employees		10.7
Std. Error of Mean		1.3
Median		5
Mode		30
Std. Deviation		11.6
Range		30
Minimum		0
Maximum		30

### Existence of an Export Department

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	1	1.2	1.2	1.2
	Yes	15	18.1	18.1	19.3
	No	49	59.0	59.0	78.3
	Other	18	21.7	21.7	100.0
	Total	83	100.0	100.0	

### Existence of an Export Manager Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	2	2.4	2.4	2.4
	Yes	30	36.1	36.1	38.6
	No	44	53.0	53.0	91.6
	Other	7	8.4	8.4	100.0
	Total	83	100.0	100.0	

### Export Intensity

While not disclosed in a specific question, the total exports for a firm can be calculated by multiplying total revenues by the percentage of sales attributed to exports. A midpoint range was created for the exports as a percentage of sales variable. For example, if a firm indicated its exports fell in the “Thirty-one – Fifty” range, a midpoint of 40% was estimated. These midpoints were used with the revenue midpoints to calculate an estimate of the exports for each firm. The results include an average export revenue of \$6,646, 086 and an export intensity of  $\$6,646,086 / \$10,832,236 = 61.4\%$

### Export Intensity

N	Valid	76
	Missing	7
Mean Export Intensity		\$6,646,085
Std. Error of Mean		894722
Median		3000000
Mode		\$6,600,000(a)
Std. Deviation		7800012
Range		\$32,547,500
Minimum		\$12,500
Maximum		\$32,560,000

a Multiple modes exist. The smallest value is shown

### Export Markets

#### Exports to U.S. Customers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	8	9.6	9.8	9.8
	1-10%	8	9.6	9.8	19.5
	11-25%	4	4.8	4.9	24.4
	26-50%	21	25.3	25.6	50.0
	51-75%	13	15.7	15.9	65.9
	76-100%	28	33.7	34.1	100.0
	Total	82	98.8	100.0	
Missing		1	1.2		
Total		83	100.0		

#### Exports to European Customers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	34	41.0	41.0	41.0
	1-10%	20	24.1	24.1	65.1
	11-25%	19	22.9	22.9	88.0
	26-50%	8	9.6	9.6	97.6
	51-75%	2	2.4	2.4	100.0
	Total	83	100.0	100.0	

### Exports to Asian Customers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	40	48.2	48.2	48.2
	1-10%	21	25.3	25.3	73.5
	11-25%	15	18.1	18.1	91.6
	26-50%	2	2.4	2.4	94.0
	51-75%	2	2.4	2.4	96.4
	76-100%	3	3.6	3.6	100.0
	Total	83	100.0	100.0	

### Exports to Rest of World

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	30	36.1	36.6	36.6
	1-10%	31	37.3	37.8	74.4
	11-25%	13	15.7	15.9	90.2
	26-50%	3	3.6	3.7	93.9
	51-75%	2	2.4	2.4	96.3
	76-100%	3	3.6	3.7	100.0
	Total	82	98.8	100.0	
Missing		1	1.2		
Total		83	100.0		

To create a testable variable, responses were categorized as a dichotomous categorical variable as either primarily targeting the USA or primarily targeting other regions grouped as a new variable “Rest of World”.

### Export Markets Dichotomous Variable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	USA	60	72.3	73.2	73.2
	Rest of World	22	26.5	26.8	100.0
	Total	82	98.8	100.0	
Missing	No response	1	1.2		
Total		83	100.0		

## Export Orientation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Export is not important to our current and future objectives	2	2.4	2.4	2.4
	Export is somewhat important to our current and future	2	2.4	2.4	4.8
	Export is of moderate important to our current and future	3	3.6	3.6	8.4
	Export is important to our current and future objectives	12	14.5	14.5	22.9
	Export is very important to our current and future	64	77.1	77.1	100.0
	Total	83	100.0	100.0	

## Five-year Export Sales

### Distribution of Five-year Export Sales

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	3	3.6	3.6	3.6
	Export sales have decreased	12	14.5	14.5	18.1
	Export sales have remained steady	12	14.5	14.5	32.5
	Export sales have increased slightly	20	24.1	24.1	56.6
	Export sales have grown at an increasing rate	36	43.4	43.4	100.0
	Total	83	100.0	100.0	

## Export Channels

How important are the following channels of export to your company?

Answer Options	Not used	Moderately important	Important	Rating Average	Response Count
Domestic trading houses	66	5	0	1.07	71
Distributors	35	13	29	1.92	77
Agents	21	33	23	2.02	77
Sales and distribution office	50	8	15	1.52	73
Joint venture	54	11	8	1.36	73
Foreign direct investment	64	2	4	1.14	70

### **Export Sales Projections**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Export sales will decrease	3	3.6	3.6	3.6
	Export sales will remain steady	5	6.0	6.0	9.6
	Export sales will increase slightly	26	31.3	31.3	41.0
	Export sales will grow at an increasing rate	49	59.0	59.0	100.0
	Total	83	100.0	100.0	

## Appendix 10

### Internet Profile of Survey Respondents

#### Export Employees Using Internet Frequency Data

How many employees in your firm use the Internet to support exports?

Answer Options	Response Percent	Response Count
1	13.8%	11
2	12.5%	10
3	12.5%	10
4	15.0%	12
5	5.0%	4
6	2.5%	2
7	2.5%	2
8	2.5%	2
9	1.3%	1
10	6.3%	5
11-15	6.3%	5
16-20	0.0%	0
21-30	5.0%	4
30	15.0%	12
<i>answered question</i>		80
<i>skipped question</i>		8

Which of the following statements best describes the impact of the Internet regarding your exports?

Answer Options	Response Percent	Response Count
Not important	3.7%	3
Slightly important	4.9%	4
Moderately important	16.0%	13
Important	37.0%	30
Critically important	38.3%	31
<i>answered question</i>		81
<i>skipped question</i>		7

How important is the Internet in supporting the following marketing activities?

Answer Options	Not important	Slightly important	Moderately important	Important	Critically important	Response Count
Researching foreign markets	5	9	15	35	18	82
Evaluating potential customers	5	14	20	31	11	81
Obtaining agents or distributors	28	21	11	13	8	81
Communicating with customers	1	6	12	18	46	83
Promotion and sales	7	12	14	26	22	81

What are the main barriers to more proactive use of the Internet?

Answer Options	Not a barrier	Barrier	Considerable barrier	Rating Average	Response Count
High costs to initiate	57	16	5	1.3	78
High costs to maintain	53	18	7	1.4	78
Lack of I.T. /web skills amongst employees	39	30	10	1.6	79
Lack of management commitment	56	18	3	1.3	77
Poor results	54	19	5	1.3	78
Customer resistance	62	11	4	1.2	77
Supplier resistance	66	7	4	1.2	77
Difficulty getting good external advice	58	19	0	1.2	77
Difficulty finding a web design company	68	9	0	1.1	77
Concerns re: security problems	53	18	7	1.4	78
Concerns re: fraud	56	14	7	1.4	77
Not appropriate for business	59	7	5	1.2	71

Rating Average is based on a scale of 1 (Not a barrier), 2 (Barrier) or 3 (Considerable Barrier)

## Website Promotion

How do you promote your website in foreign markets?

Answer Options	Response Percent	Response Count
Email	73.7%	56
Register on search engines	53.9%	41
Create links on other websites	47.4%	36
Create pop-up ads on other websites	6.6%	5
Offline promotion	39.5%	30
Other (please specify)	34.2%	26



## Appendix 11

### Website MANOVA

Because website evaluations were completed over two different time periods, a Manova multivariate test was performed. This test determines if any differences in an independent variable have a statistically significant effect on the dependent variable. The Wilk's Lambda of .612 indicates there is no significant difference in the evaluations. As such, the data can be evaluated as one whole. The multivariate test is presented below:

#### Between-Subjects Factors

Date of Evaluation	Variable Code	Count
Fall 2007	0	46
Winter 2009	1	34

#### Multivariate Test

Effect		Value	F	Hypothesis df	Error df	Sig
Intercept	Pillai's Trace	.985	442.4	10.0	69.0	.000
	Wilks' Lambda	.015	442.4	10.0	69.0	.000
	Hotelling's Trace	64.1	442.4	10.0	69.0	.000
	Roy's Largest Root	64.1	442.4	10.0	69.0	.000
WDate	Pillai's Trace	.388	4.376	10.0	69.0	.000
	Wilks' Lambda	.612	4.376	10.0	69.0	.000
	Hotelling's Trace	.634	4.376	10.0	69.0	.000
	Roy's Largest Root	.634	4.376	10.0	69.0	.000

## Appendix 12

### Website Evaluation Data

Company	Objectives	Content	Internationalization	Customer Interactivity	Marketing Interactivity	Site Navigation	Visual Aesthetics	Technical Functionality	Transaction Orientation	Content Management	Sum
ANON											0
ABSF	4	3	1	2	3	5	3	5	2	3	31
AL	3	3	2	3	3	4	4	3	3	2	30
AG	3	4	2	2	3	4	5	5	1	3	32
AI	5	4	4	3	3	4	4	5	2	4	38
AEI	3	2	1	4	3	5	3	4	2	1	28
A	2	2	1	2	2	5	2	3	1	3	23
AAS	2	2	2	2	3	3	2	3	1	2	22
BGMI	2	3	1	2	2	4	5	4	1	2	26
BDC	2	3	1	1	2	5	5	5	2	1	27
BCCI	2	3	1	1	2	4	3	5	1	2	24
CWI	4	4	2	3	3	5	4	4	3	3	35
CLS	3	3	4	2	2	5	2	5	2	2	30
CHCO	5	5	4	5	4	4	3	3	3	4	40
CMSL	4	4	1	3	4	4	4	3	3	5	35
CAR	5	5	4	5	4	5	5	5	4	5	47
CE	3	3	1	2	3	5	4	4	2	2	29
CPCST	4	5	4	2	3	4	4	5	2	4	37
DDT	3	3	3	2	2	3	4	3	1	2	26
DEC	4	4	5	3	3	5	3	4	3	3	37
DD	5	5	5	5	5	4	4	4	3	4	44
DSC	3	3	3	3	3	5	3	4	3	4	34
EW	2	1	2	2	2	4	2	4	2	2	23
ETI	3	3	1	2	3	5	2	5	2	1	27
FFI	5	3	4	3	2	3	3	5	3	2	33
FSCL	4	3	3	4	3	2	3	4	3	3	32
GD	2	1	1	1	3	3	2	5	1	3	22
GXT	1	1	1	3	2	4	2	2	1	1	18
G	2	3	1	1	3	5	3	5	1	3	27
GMB											0
GE	3	2	2	3	4	4	3	5	2	5	33
HB	3	3	1	2	3	5	3	4	2	3	29
HOTR	3	4	1	2	4	5	5	4	3	4	35
HC	2	1	2	4	2	2	1	4	4	3	25
I3D	5	5	4	5	5	4	4	4	5	4	45
ICA	5	5	3	5	4	3	4	5	3	4	41
IV	3	3	4	3	3	3	3	2	3	3	30
IRG	4	4	1	5	5	3	3	5	5	4	39
IS	3	3	3	1	2	5	5	5	2	3	32
IFP	3	3	3	3	3	5	4	5	3	4	36
KMAS	3	3	2	2	3	4	2	5	2	2	28
KAS	3	3	2	3	3	5	5	5	1	2	32

LMBS	2	3	3	2	2	5	4	5	2	3	31
LES	5	5	3	5	4	3	3	5	4	3	40
LMI	3	3	2	3	3	5	3	5	3	3	33
MW											0
MLEE	5	5	3	5	4	2	3	5	5	2	39
MFL	2	2	1	1	2	5	5	5	2	2	27
MFFF	3	5	4	4	4	5	4	5	3	4	41
MMI	3	3	4	5	3	2	2	5	3	2	32
ME	4	4	2	4	3	5	5	5	4	5	41
MTM	2	2	2	2	3	5	4	4	2	3	29
M	4	4	4	4	5	5	5	5	5	4	45
MX	4	4	3	2	3	4	5	5	2	5	37
ODG	3	3	3	3	3	5	3	4	2	2	31
OC	4	5	4	5	5	4	5	5	5	4	46
OZO	5	5	4	5	5	5	5	4	5	5	48
PGM	5	5	5	5	5	2	2	5	5	2	41
PPI	4	5	2	4	4	5	5	5	1	3	38
PI	5	4	4	5	5	2	3	3	4	3	38
QSI	4	4	3	5	4	3	3	5	5	3	39
RMCL	3	3	2	1	3	3	2	3	2	2	24
RTTE	4	4	3	3	4	5	4	4	4	3	38
SBB	4	4	4	4	4	5	4	4	2	3	38
SCHL	4	5	3	5	5	3	3	4	3	2	37
SI	3	4	3	3	3	5	4	5	1	4	35
S	5	5	3	5	4	5	3	5	5	5	45
SA	5	5	5	5	5	4	5	4	3	5	46
SBI	4	4	3	4	4	4	4	5	1	4	37
ST	2	3	1	2	2	4	4	5	2	2	27
SSS	3	3	4	3	3	2	2	2	2	3	27
SE	4	5	5	3	4	4	4	5	2	4	40
TTC	4	4	3	5	5	3	4	5	5	5	43
TD	3	3	2	3	4	5	5	4	3	4	36
TTI	3	3	3	4	3	4	4	5	3	3	35
TP	3	4	1	2	3	5	5	5	2	3	33
TWTI	2	3	2	2	2	5	4	5	2	2	29
UBS	3	3	1	2	2	4	5	5	1	2	28
VM	3	3	1	3	4	5	3	5	1	4	32
WBB	5	5	3	5	5	5	5	3	4	5	45
WT	4	4	2	4	4	5	4	5	1	5	38
WWI	4	3	4	5	3	4	5	4	4	5	41
Z	3	4	4	3	3	3	4	5	2	3	34

## Appendix 13

### LinkedIn Intensity Data

#### Online Network Data

Company	Number of LinkedIn employees	Number of LinkedIn connections	Number of LinkedIn Links per employee
IRG	166	500	3.0
MX	161	50	0.3
CAR	62	110	1.8
KAS	61	200	3.3
DD	46	600	13.0
WT	28	50	1.8
SA	27	110	4.1
Z.	22	1000	45.5
I3D.	20	20	1.0
FFI.	17	100	5.9
OzO	17	50	2.9
CPCS	13	50	3.8
OC	13	20	1.5
ANON	<b>10</b>	<b>50</b>	5.0
GMB	<b>10</b>	<b>50</b>	5.0
MW	<b>10</b>	<b>50</b>	5.0
MLEE	10	26	2.6
MFL	10	55	5.5
AL	8	135	16.9
AAS	8	70	8.8
SE	8	10	1.3
ABSF	7	50	7.1
DSC	7	35	5.0
GD	7	50	7.1
LMI	7	86	12.3
S	7	100	14.3
AI	6	10	1.7
BGMI	6	110	18.3
IS	6	15	2.5
CMSL	5	20	4.0
ODG	4	8	2.0
PPI	4	5	1.3
SSS	4	5	1.3
WBB	4	60	15.0
QSI	3	11	3.7
RMCL	3	10	3.3
RTTE	3	5	1.7
UBS	3	3	1.0
VM	3	10	3.3
AG	2	5	2.5

AEI	2	50	25.0
HOTR	2	3	1.5
LES	2	5	2.5
MFFF	2	3	1.5
SBB	2	36	18.0
SCHL	2	2	1.0
SI	2	4	2.0
TTI	2	2	1.0
WWI	2	2	1.0
BDC	1	1	1.0
CWI	1	1	1.0
CE	1	1	1.0
EW	1	50	50.0
ETI	1	5	5.0
G	1	2	2.0
GE	1	10	10.0
HC	1	1	1.0
IV	1	1	1.0
MTM	1	1	1.0
M	1	0	0.0
PGM	1	2	2.0
PI.	1	0	0.0
TD	1	1	1.0
TP	1	1	1.0
A	0	0	0.0
BCCI	0	0	0.0
CLS	0	0	0.0
CHCO	0	0	0.0
DDT	0	0	0.0
DEC	0	0	0.0
FSCL	0	0	0.0
GXT	0	0	0.0
HB	0	0	0.0
ICA	0	0	0.0
IFP	0	0	0.0
KMAS	0	0	0.0
LMBS	0	0	0.0
MMI	0	0	0.0
ME	0	0	0.0
SBI	0	0	0.0
ST	0	0	0.0
TTC	0	0	0.0
TWTI	0	0	0.0
Avg	10.3	49.3	4.5

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