

Leveraging Entrepreneurial Orientation to Enhance SME Export Performance

An Office of Advocacy Working Paper

by

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for



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Note

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Purpose

Export strategy has become increasingly important for SMEs in recent years. To realize the full potential of export strategy, SMEs must be able to address challenges in export markets successfully. A firm must have adequate capabilities to meet unique challenges in such efforts. However, SMEs are limited by their access to resources and capabilities.

While prior studies have looked at the importance of organizational learning in export strategy, they have overlooked the firm capabilities that facilitate the use of the learning. As firms that partake in export activity are entrepreneurial in nature, these firms would benefit by proactively seeking new markets, engaging in innovative action to meet local market needs, and be able and willing to take risks by venturing into previously unknown markets.

The authors of this paper propose that SMEs make use of capabilities such as entrepreneurial orientation in an attempt to reduce impediments to exporting, which in turn could lead to enhanced export performance.

Overall Findings

This study finds that proactivity and risk-taking play a role in enhancing export performance of SMEs. However, it did not find support for innovation as a factor that enhances export performance. These findings could mean that firms that are proactive in nature are better at reducing export impediments. This is because these firms are able to bring new products quickly into the marketplace, and are better able to anticipate future demand, creating a first mover advantage. The results of the study also suggest that risk-taking firms might choose strategies that move away from the status quo, thereby increasing the firm's engagement in process enhancements, new product services, innovative marketing techniques, and the like.

Scope and Methodology

The data for this report were collected for the National Federation of Independent Business by the executive interviewing group of The Gallup Organization. The survey focused on international trade efforts of small manufacturers and small employers in all industries. The survey only considered SMEs employing no less than one individual in addition to the owner(s) and no more than 249. For purposes of this analysis, the authors focused exclusively on firms in the manufacturing sector. They used a structural equation modeling approach to analyze the data.

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ABSTRACT

Global trading has become increasingly important. Due to the central roles of SMEs in the economy and in job creation, taking advantage of trading opportunities can have an impact beyond the performance of an individual firm. Yet, their liabilities of smallness constrain SMEs from exploiting some opportunities in export markets. We investigate how SMEs leverage their entrepreneurial orientation (EO) to reduce functional and marketing impediments, thereby enhancing export performance. Using a sample of 270 SMEs, we find that proactiveness and risk-taking enhance export performance. Our findings suggest that EO is a central capability in enhancing SME export performance.

EXECUTIVE SUMMARY

As drivers of employment and economic growth, SMEs are well positioned to provide the greatest potential for wealth creation and redistribution. However, limited resources and capabilities may restrict their options for exploiting such opportunities. Specifically, SMEs may lack the internal ability to transform resources, processes, and capabilities to meet the demands of new export opportunities. We assess how SMEs can leverage EO to overcome internal impediments to export, and thereby enhance their entrepreneurial performance. Specifically, we analyze how the three key dimensions of EO, (1) innovativeness, (2) proactiveness and (3) risk-taking, may help them reconfigure their internal resources, routines and processes to more effectively meet international market needs.

We use a sample of 270 SMEs we found that proactiveness and risk-taking play an important role in enhancing the export performance. However, we did not find support for the role of innovativeness. These findings could mean that SMEs that are proactive are more effective at reducing export impediments because they are able to bring new products quickly to the marketplace. They also appear to be better able to anticipate future demand, which can create a first mover advantage. The results of our study suggest that risk-taking firms could be advised to choose strategies that move away from the status quo, thereby increasing a firm's engagement in process enhancements, new products or services, innovative marketing techniques, etc.

Although many studies deal with export activities, relatively few of them have been based on a rigorous theoretical framework for researching the entrepreneurial aspects of export activity. Responding to the lack of theory in this area, we used EO, which is a well accepted theoretical approach, to understand the factors that influence the relationships between entrepreneurship and firm export performance.

INTRODUCTION

Exporting has become an increasingly important avenue for the growth of many firms. In fact, global exports have grown dramatically from approximately \$40 billion in 1945 to \$13.68 trillion in 2007 (WTO 2007), making it one of the fastest-growing economic activities. SMEs account for 50 per cent of gross domestic product in developed countries and 60 per cent of employment. With increased opportunities for global trade and maturing home markets, enhancing the export performance of SMEs is important for economic and social welfare. Yet, small firms face

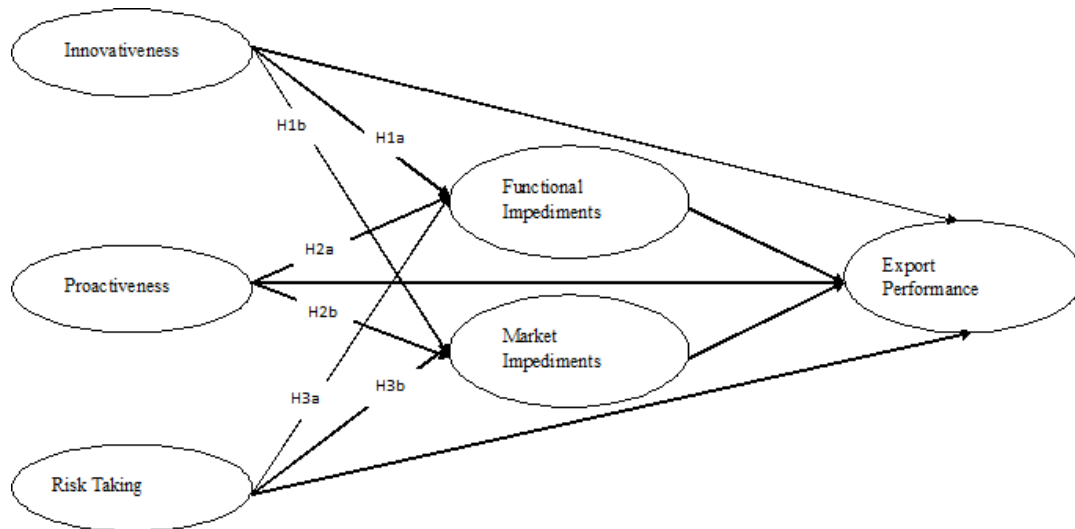
significant impediments in realizing increased returns from exports. Impediments limit the ability of SMEs to adapt to the demands of the export market.

Although we understand the importance of exporting by SMEs, we are less clear about the impediments that they face to engage successfully in this wealth generating activity. To exploit successfully export opportunities, SMEs must reconfigure their internal routines and processes to modify their products or cost structures as a way of increasing their exports. One scantily explored capability for reconfiguring their internal routines and processes and for reducing impediments to exports is *entrepreneurial orientation* (EO), which is a set of decision making styles, processes, practices, rules, and norms according to which a firm makes decisions to enhance its innovativeness, proactiveness, and risk taking propensity (Lumpkin and Dess 1996; Sapienza et al. 2005). Finally, we do not understand the extent to which EO could be ineffective in helping SMEs to learn in international settings (Sapienza et al. 2005), nor how it could facilitate the adaptation of its internal routines and processes to support exporting.

Given that entrepreneurial orientation appears to assist exporting, our research question is: how do firms leverage EO to facilitate adapting to the challenges of export markets? The ability to adapt to export markets by leveraging EO is an important question for four reasons. First, SME exports could augment firm growth through exports, as well as optimize their capacity utilization. Second, through EO, SMEs may be able to gain and sustain a competitive advantage by reducing impediments and thereby enhancing export performance. Third, the negative effects of export impediments could be even more limiting for small firms. Much of the research on exports has either considered the role of impediments in the choice to export or how impediments affect performance (Leonidou et al. 2007), but not on how firms can limit or overcome such impediments. Fourth, enhancing SME exports is important for national policy. Exports enlarge foreign exchange reserves, increase employment levels, improve productivity, and promote societal prosperity.

This article begins by analyzing two impediments to export performance. First, we discuss *marketing impediments*, which are obstacles to locating sales prospects in international markets, identifying reliable representatives and the high costs related to market development (Leonidou et al. 2007). Second, we discuss *functional impediments*, which relate to the lock-in effects of possessing an immobile set of resources and which are related to acquiring necessary financing and management experience for successful export performance (Leonidou et al. 2007). Next, we present our arguments and hypotheses to test how EO could enhance exporting by reducing the negative effects of the impediments, followed by how we test the model. We conclude by discussing the implications and limitations of our findings. We now develop these arguments further and summarize them in Figure 1.

Figure 1
Effect of Entrepreneurial Orientation on firm Export Performance



SME EXPORT IMPEDIMENTS

SMEs are most vulnerable to impediments related to resource limitations, operating difficulties and trade restrictions (Katsikeas and Morgan 1994). In brief, *export impediments* refer to factors that play a part in obstructing a SME’s capacity to launch, carry out, expand, or sustain activities in international markets (Leonidou et al. 2007). Export impediments can be classified as *internal impediments* – resources and capabilities within the control of the firm, and *external impediments* – environmental factors outside the control of a SME (Leonidou 2004).

We focus in this research on internal impediments that are idiosyncratic to a firm and are usually related to a lack of organizational resources (Tesfom and Lutz 2006). Research has found that a lack of competent personnel, an inability to meet quality standards, a lack of financial backing, insufficient information about a foreign market, an inability to meet design specifications, and an unfavorable image in a foreign market are internal barriers faced by many SMEs (Czinkota and Ricks 1983; Tesfom and Lutz 2006). Under these conditions, EO could play a role in enhancing a firm’s capacity to address these internal challenges. Internal impediments can be further classified into functional impediments and marketing impediments (Leonidou 2004), which have been found over the last three decades to be significant in empirical research. In their extensive review on export impediments from 1980 to 2004, Tesfom & Lutz (2006) identified functional and marketing impediments as key barriers. In a systematic review of 32 empirically based export studies, Leonidou (2004) extracted two key impediments – functional and marketing impediments for which they found consistent support.

Functional impediments

Functional impediments to exporting are related to limits on reconfiguring an SME's internal processes to meet the demands of export markets (Vozikis et al. 1985). The impediments are related to human capital, resources and capabilities that restrict the formulation and implementation of strategies necessary for export success.

Decisions about which international markets hold the most potential are usually made by either a single person (owner-manager) or by a small group of individuals in SMEs (Gomez-Mejia 1988). Trained personnel are required to identify foreign business opportunities and to select the most promising international markets (Leonidou et al. 1998). They are also required to be both willing and able to spend time and resources (Leonidou et al. 2007). Examples of duties that could arise when an SME decides to go international include, but are not limited to, handling documents, dealing with the logistics of exporting goods/services and communicating with customers who are importing the goods/services (Leonidou 2004; Leonidou et al. 2007). Further, if an SME considers exporting goods/services to an international market, it could encounter significant costs in the form of researching potential markets and implementing export strategies (Leonidou et al. 2007). These added human capital costs could be costly for an SME to absorb (Jaffe et al. 1988; Westhead et al. 2002).

Limited human capital and resources restrict the assessment and formulation of changes that are necessary for making functional adjustments. Exports could also require changes in technological learning to adapt and grow (Grant 1999; Autio et al. 2000). Finally, firms must be able to retrieve knowledge to address external environmental challenges (Grant 1999; Autio et al. 2000).

Marketing impediments

Although functional impediments can limit a SME's capacity to reconfigure resources for export markets, marketing impediments affect a SME's capacity to price, distribute and promote a product or service in a foreign country (Kedia and Chhokar 1986; Moini 1997). Researchers suggest that ineffective marketing is probably the most important barrier for exporting faced by SMEs (Groke and Kreidle 1967; Kedia and Chhokar 1986). A key difference between functional and marketing impediments is that the former tend to be more strategic in nature, whereas the latter are more tactical. Functional impediments are also more expansive because they result from constraints in multiple areas of a firm.

The most critical marketing impediments to effective exporting are unreliable foreign representation and SMEs failing to carry out planned promotional activities to develop foreign markets (Leonidou et al. 2007). It can be costly for SMEs to find individuals in foreign markets who can conform to the structural, operational, and behavioral requirements of an exporting SME (Leonidou 2004). When such representation is found, it could be the case that the representative is already committed to represent competitors.

SMEs attempt to adjust their promotional activities to suit the different consumption patterns and regulations in a foreign market. Most of them probably realize that they must focus on target

audiences and be sensitive to cultural norms. In addition to advertising, promotional barriers include effectively adjusting or modifying a product and/or its packaging (Terpstra and Sarathy 2000) and offering more competitive prices to customers (Doole and Lowe 2001), as well as making a product or service available through extensive distribution networks.

Entrepreneurial Orientation and Internal Export Impediments

SMEs are particularly vulnerable to impediments related to resource limitations, operating expenses and trade restrictions (Barker and Kaynak 1992; Katsikeas and Morgan 1994). These functional impediments limit the generation of aggregated responses at the firm level, whereas marketing impediments relate to challenges of learning and adaptation. To minimize the effect of such impediments firms must have the ability to adapt to export market demands.

Firms can overcome these impediments by using accessible resources (Zou and Stan 1998) and by adapting to changes in demand and supply through increased organizational learning (De Clercq et al. 2005; Lages et al. 2008). Whereas *resources* refer to inputs into the production process (Ferreira and Azevedo 2007) and include equipment, intellectual assets, patents, etc., *capabilities* refer to the potential for a set of resources to perform a task or activity (Hitt et al. 2001; Ferreira and Azevedo 2007). Therefore, researchers argue that even though a firm cannot have capabilities without resources, it is eventually how the resources are used i.e. capabilities, that gives a firm a competitive advantage. The necessity of higher levels of innovativeness, risk taking propensity, and proactiveness to create appropriate responses to export challenges may be a critical capability in adapting to export markets (Douglas and Craig 1989).

We now discuss each of the EO dimensions—innovativeness, risk taking propensity and proactiveness—as they relate export impediments.

Innovativeness

Innovativeness refers to a firm's tendency to engage in and support new ideas, novelty, experimentation and creativity. It implies a willingness to forgo old habits and try untested ideas. It steers a firm away from existing ways of doing things to exploring more novel means. When SMEs venture into new markets, innovative reconfiguring of existing products, resources and practices could be central to creating a competitive advantage. Compared to *innovation*, which is developing or improving new products, innovativeness implies a firm-wide, cultural approach. Such an approach could create transformational resources that are embedded in the social structure of a firm (Lado and Wilson 1994). As a firm-specific, valuable and socially complex resource that is neither easily transferable nor imitable by other firms, innovation could confer a unique competitive advantage to exporting SMEs (Hult and Ketchen 2001).

Innovativeness and Functional Impediments

Research has shown that EO leads to the reconfiguration of resources into new and improved products and services that are better aimed at meeting perceived demand or change (Atuahene-Gima and Ko 2001). EO has also been shown to lead to experimentation that allows a firm to pursue opportunities before their competitors (Atuahene-Gima and Ko 2001; Hughes et al.

2007). As mentioned previously, functional impediments relate to a firm's ability to reconfigure internal resources and capabilities and to adapt to external demands. The innovative reconfiguration of existing resources and capabilities to meet export demands could position a firm to achieve a competitive advantage (Hult and Ketchen 2001). Innovativeness could help SME employees adjust to technological and administrative requirements for exporting (Dess and Lumpkin 2005).

Technological and administrative innovativeness are important for market adaptation. Product, service, administrative, and technological innovations all focus on understanding the expressed needs of consumers. This in turn leads to the exploitation of opportunities that may be within the current domain of a firm, based on existing learning and experience (Slater and Narver 1995)., Innovativeness may lead to an improved firm-wide capacity to identify export opportunities. Innovativeness could also enhance human capital by increasing firm-wide flexibility to adopt new means of value creation. Therefore, we suggest that innovativeness could help deal with functional impediments, and increase the chances of exporting by SMEs.

Hypothesis H1(a): Innovativeness will positively affect export performance by reducing functional impediments.

Innovativeness and Marketing impediments

Marketing impediments are related to the increased costs of putting in place the best marketing mix for an export market. Marketing capability is the result of an integrative process designed to apply the collective knowledge, skills and resources of a firm to the marketing needs of a business (Day, 1994). Marketing capability is central to SME export success because it helps capture a firm's capacity to formulate effective marketing mix tactics that are critical to identify and access international opportunities (Weerawardena 2003). Innovativeness can help SMEs customize their marketing mix not only to match but surpass their customer's expectations (Robertson and Gatignon 1986). Without innovativeness, a SME's marketing mix would resemble other best practices which are built on existing marketing approaches. Thus, innovativeness is one way to reduce marketing impediments. However, with limited innovativeness, the strategic and tactical intent of a market mix would be readily obvious and hence would be more easily imitated by competitors—the result being that it would limit a SME's export performance.

Innovativeness helps a SME to position its products more effectively in promising niche markets (Madsen 1989), to communicate the credibility of a firm and its offerings, to find appropriate distribution options and to price the product in its market. The greater the degree of customization of the marketing mix, the lower will be the risk of not developing the right marketing mix (Cavusgil and Zou 1994). To customize a marketing mix, firms must be capable of performing traditional marketing functions in novel ways. Learning is the central component of an innovative marketing mix (Vorhies and Harker 2000). Thus, the ability to learn about the market, including both consumer preferences and competitor actions, is essential for the development of effective marketing mix strategies as well as positioning a firm in multiple markets (Day 1994). Firms developing their marketing mix through means that are a result of socially complex, firm-level processes, routines, and learning increase the causal ambiguity

about how effective changes were implemented, thereby making them more costly to imitate. Therefore, the right market mix will be more valuable, but may also exhibit greater rarity and inimitability, when it is bundled with, and complemented by innovativeness (Amit and Schoemaker 1993).

Hypothesis H1(b): Innovativeness will positively affect export performance by reducing marketing impediments.

Proactiveness

Although innovativeness relates to a firm's orientation toward creating innovative responses, proactiveness is related to anticipating and acting on future wants and needs in the market, which would enable a firm to gain first-mover advantage vis-a-vis the competition (Lumpkin and Dess 1996). Compared to innovativeness that focuses on creating novel combinations of product and administrative dimensions, proactiveness focuses more on a firm's initiative. Proactive organizations shape their environments by actively seeking and exploiting opportunities (Krueger 1993). A proactive firm seizes new opportunities through (a) scanning the environment to seek opportunities (Venkatraman 1989) and (b) taking preemptive action in response to perceived opportunity (Lumpkin and Dess 1996). Essentially, proactive firms "introduce new products, technologies, administrative techniques" to shape their environment and not react to it ((Miller and Friesen 1983): 923). Whereas innovativeness may be an internal response from a firm, seeking opportunities to innovate is a complementary activity. Proactiveness is crucial to export markets in reducing functional and marketing impediments. On the functional side, proactiveness helps firms proactively seek information and resources to meet anticipated demand (Francis and Collins-Dodd 2000).

Proactiveness and Functional Impediments

According to evolutionary economics (Nelson and Winter 1982), firms rely on search routines to locate attractive opportunities but also to gain a first mover advantage. Innovativeness complements searching by assisting in the exploitation of the opportunities. To address internal functional impediments in export markets, SMEs must actively explore trends in technology, competition and customer behavior. Searching indirectly reduce impediments by enhancing response speed.

Export markets can be turbulent and uncertain in part because SMEs must conform to the institutional and strategic demands of the host country (Oliver 1997). Environmental uncertainty and dynamism reduce management's ability to accurately assess the external environment and changes therein (Duncan 1972; Keats and Hitt 1988). Proactiveness assists in identifying the best strategic direction while ensuring that a firm enjoys first mover benefits. We focus on how proactiveness may assist a SME in reducing functional impediments. The technological improvements necessary to meet changes in products and processes could threaten the existing competencies of a firm (Singh 1997). However, proactiveness could help firms to seek out new ways to address technological challenges. For example firms may form links with partners with complementary competencies.

Competitive challenges require that a firm proactively seek and exploit opportunities to attain a first mover advantage, as well as achieve a competitive advantage by facilitating market offerings that satisfy customer needs, as well as quick entry into new markets. Besides helping SMEs focus on promising opportunities and actively identifying the means to exploit them, proactiveness helps firms reengineer their relationships with external stakeholders to improve their network positions (Koka et al. 2006). Improved network positions open up access to resources and the means necessary for SMEs to meet technological, competitive, and customer needs.

Beyond its role in promoting the use of innovativeness, proactiveness assists in reducing functional impediments by enhancing the speed of exporting. A greater ability to predict technological, market, and competitive trends increases the speed of international business activities (Knight and Cavusgil 1996; McDougall and Oviatt 2000). Knowledge moderates the reduction of functional impediments because it increases a firm's absorptive capacity (Cohen and Levinthal 1990), as well as enhances intra-firm learning. As firms acquire external knowledge, they may be able to assimilate and internalize the knowledge to respond to export market challenges. By complementing external knowledge, proactiveness further enhances firm learning leading to improved export performance.

Hypothesis H2(a): Proactiveness will positively affect export performance by reducing functional impediments.

Proactiveness and Marketing impediments

Proactiveness can accelerate the modification of a firm's marketing mix in order to export more effectively. It plays a central role in a SME's motivation to export (Czinkota and Johnston 1981; Katsikeas and Piercy 1993; Francis and Collins-Dodd 2004). A proactive exporter performs better in terms of sales volume, follows more cohesive export marketing strategies and performs more sales-seeking and information-seeking activities (Czinkota and Johnston 1981). Proactive firms are also able to adapt more quickly to psychologically distant markets (Gripsrud 1990). By actively seeking market information and opportunities, proactiveness helps SME managers carefully plan their entry and to allocate sufficient managerial and financial resources (Diamantopoulos and Inglis 1988), appropriately commit resources and more effectively implement a marketing mix that matches the interests of potential buyers (Aaby and Slater 1989; Cavusgil and Zou 1994). Although proactiveness in seeking information and opportunities in export markets is evident, we now explore how it assists in reducing impediments to customizing a marketing mix.

In accordance with organizational learning theory (Huber 1991; Sinkula et al. 1997), proactiveness enhances learning capability to acquire, disseminate, unlearn and integrate market information. Proactiveness facilitates recognizing explicit customer needs, which could help to develop an appropriate marketing mix (Weerawardena 2003). SMEs must also actively seek market knowledge to set prices and provide products. Proactive pricing also helps attract customers (Cooper and Kleinschmidt 1985; Katsikeas and Morgan 1994). In addition, proactive pricing could enhance first-mover advantages.

Although previous research has found a positive relationship between advertising and export performance, (Burton and Schlegelmilch 1987; Fraser and Hite 1990), learning about a market is also important because markets can be culturally and geographically distant. Proactively learning and gathering information is important both for sending the right message and for acquiring tacit information. Proactive learning is even more important in distant markets because they are more difficult to monitor and stay apprised of current and potential consumers. Similarly, proactiveness may help access better distribution channels by identifying unique access points and methods (Aaby and Slater 1989). More importantly, proactiveness facilitates strategic arrangements in distribution channels by helping develop ongoing distribution relationships, dealer support, and learning from foreign representatives (Chetty and Campbell-Hunt 2003). Overall, proactiveness facilitates market learning by identifying opportunities and developing the means to enhance the marketing mix, which reduces errors and contributes to gaining a first mover advantage.

Hypothesis H2(b): Proactiveness will positively affect export performance by reducing marketing impediments.

Risk Taking

Baird & Thomas (1985) 231–232) identified risk taking as: (1) “venturing into the unknown”; (2) “committing a relatively large portion of assets”; and (3) “borrowing heavily”. Risk-Taking is the willingness to break away from the tried-and-true path and venture into unknown territory (Venkatraman 1989; Wiklund and Shepherd 2003). A risk-taking propensity indicates a tendency to engage in risky projects and a preference for bold (versus cautious) acts to achieve a firm's objectives (Miller 1983). Exports can be high risk activities resulting in varying rates of success. Although SMEs may be innovative in developing new products and practices or proactive with seeking new opportunities, an ability and a willingness to take risk are central to engaging in entrepreneurial activities such as exporting. Firms may need to experiment with numerous combinations before they can generate innovative products and practices (Rodan 2002). Therefore, innovation can require large investments because progress toward innovations can fail. Hence, risk-taking is also the degree to which managers are willing to make large and risky resource commitments (Miller and Friesen 1982). Although innovativeness can help firms make novel combinations and proactiveness can help identify novel opportunities, risk taking is also necessary to support both innovativeness and proactiveness.

Risk taking and Functional Impediments

To face fewer functional impediments a firm must be able to adapt to export market needs in novel ways. To encourage employees to create novel combinations, risk-taking is most useful if it is woven into the fabric of an organization. Also, organizations are likely to be innovative when risk-taking is promoted in an organization (Nystrom 1993). In addition, risk-taking fosters organizational creativity (Gilson and Shalley 2004). Under unpredictable conditions, an organization's risk-taking propensity is positively related to new product development (Cavusgil et al. 2003). In contrast, a risk-averse management reduces a firm's commitment to cutting-edge products and technologies, thereby decreasing the firm's level of innovation (Gilley et al. 2004).

Risk-taking propensity promotes and exhibits behaviors that lead to process enhancements, new products or services, and innovative practices (Gilley et al. 2002).

For our purposes, risk taking plays a central role in the effectiveness of an export strategy and its implementation. It is a managerial choice that impacts the priorities for any chosen strategy (Ho 1996). Alternatively, risk-taking is inherent in strategy making when firms formulate strategy through assertive approaches such as entering new markets (Miller 1988). In assessing the effect of risk-taking on the relationship between strategy formulation and implementation, Gupta & Govindarajan (1984) found that risk-taking had a positive influence on effective implementation. Effective export implementation means that a firm would face fewer functional barriers in formulating its strategy based on its resources and capabilities. Thus, risk taking can play a key role in reducing functional impediments by helping to develop and implement an effective export strategy.

It can be argued that the exports generally require interaction with the markets in order to make appropriate internal changes. As discussed in earlier sections, SME managers must exercise their judgment so as to provide new products, make changes to products, or modify practices to adapt accordingly. Making changes to products or practices requires making judgments which are contingent on a managers' ability to take risks. Further, these innovations or modifications can be either radical or incremental; some of them can be very expensive and require managers to take risks. To quickly and effectively respond to an export market needs, a managers' propensity to take risks (by making large resource commitments) should enhance a SME's capacity to adapt to the needs of export markets and thereby face fewer functional impediments.

Hypothesis H3 (a): Risk taking propensity will positively affect export performance by reducing functional impediments

Risk taking and marketing impediments

Successful marketing for exporting requires firms to develop outlets for their products. These pioneering activities are fraught with uncertainty and not all firms are successful (Min et al. 2006; Garrett et al. 2008). The high-risk is due to demand uncertainty (Min et al. 2006). Although marketing to other countries requires learning to adapt to a different marketing mix, the role of risk-taking is still central.

Adapting a marketing mix requires that SMEs take timely risk to enhance strategic decision speed. Firms that react conservatively to marketing challenges may not be able to pioneer new markets due to lock-out created by risk aversion. Actively investing in evolving marketing mixes assists firms to participate in new market opportunities. To take advantage of the opportunities, ex-ante marketing investments are necessary. Different export markets may present heterogeneity in customer tastes for products, prices, and promotions. More importantly, some distribution channels may be more effective. Thus, firms must demonstrate a willingness to take calculated risks and challenge the existing order of business to secure performance.

Keh, Nguyen & Ng (2007) explain how gathering specific information and information utilization can enhance the marketing mix for a SME. However, risk taking plays an important

role in helping SMEs acquire and invest in information to support product development, promotion, pricing and distribution. Success with these elements of marketing requires that firms gather information and use it before a SME actually knows the value of such efforts. However, making investments under such risky conditions helps SMEs identify and predict customer desires and patterns which may improve the marketing mix for a particular export market.

Hypothesis H3(b) Risk taking propensity will positively affect market performance by reducing marketing impediments

DATA

The National Federation of Independent Businesses (NFIB) collected the survey data for this research. The survey focused on the international trade efforts of small manufacturers and small employers in all industries. The survey only considered SMEs employing between one and 249 employees, in addition to the owner(s). Thus, the survey setting is appropriate in assessing the role of entrepreneurial orientation as a capability for meeting export contingencies.

The sampling frame was based on the firms in the Dun & Bradstreet data base. The first sample was a random, stratified sample of small manufacturers. With almost 60 percent of small manufacturers in the United States employing just one to nine people, without stratification the dataset would have included a random sample with very few large SMEs. Stratification highlighted data from three distinct classes based on firm size—firms employing between 1-9 employees, 10-19 employees, and 20- 249 employees. The second sample was a randomized draw from all industries of firms having fewer than 250 employees. A proportionate number of manufacturers were included. In our analysis we used a weighting variable to ensure representativeness.

To avoid confounding industry effects, we focused exclusively on firms in the manufacturing sector. Of the 1500 surveys sent to manufacturers, 610 usable surveys were returned, indicating a 41% response rate. Of the 610 firms, we only examined firms that had export sales. This resulted in a final sample size of 270 firms. The firms averaged 17.83 years old and employed an average of 20.76 employees. We analyzed export sales as a percentage of total sales. Export revenues for much of the sample were reported to be relatively stable for the previous three years. However, the export revenues from other countries were rather limited. Canada represented 32 percent of exports, followed by 14 percent for Asia, 13 percent for Mexico, and 12 percent for the British Isles. The export revenues were mainly derived from English-speaking countries whose geographical coverage was rather limited. Nineteen percent of the manufacturing SMEs sell to one country; whereas 25 percent sells to more than six. Finally, SMEs with 20 or more employees were more likely to engage in export activities than manufacturers employing fewer employees.

Given that the survey data were self-reported, common method bias could have presented a serious problem for interpreting the results. Using a test suggested by Podsakoff & Organ (1986), we conducted a factor analysis of all the items used in our study. We extracted 6 factors with Eigenvalues > 1.0. The combined variance of the 6 factors was 84.62%. The first factor accounted for 19.38% of the variance, whereas the remaining 5 factors accounted for 65.24 % of

the variance. Common method bias is less important if (a) more than one factor is identified, and (b) none of the factors account for the majority of the variance explained. Because the factor analysis results satisfy both criteria, common method bias was not a serious problem. We also tested for multicollinearity by calculating the variance inflation factors (VIF) and Condition index. All VIF values were below 10 (VIF = 3.29). Also, the Condition index was below 30 (Condition Index = 20.08). These values suggest that multicollinearity was not affecting our estimations (Hair et al. 1998).

ANALYTICAL APPROACH

We used structural equation modeling to test the hypotheses. Beyond the typical precautions necessary in implementing a structural equations model (Bollen 1990), one potential analytical challenge is that the sample size was not large. Although sample sizes above 200 are acceptable, testing partial mediation required us to ensure that our inferences were based on sufficient power. We used recent approaches for testing the overall power of the model (Shook et al. 2004; Kline 2005).

We proceed by discussing potential indicators for each construct (scales in the case of EO). We also include controls in the SEM, which have been largely overlooked in many studies (Byrne 1994). Different firm characteristics could alter the effect of EO on export performance. Therefore, we used a set of controls, together with the residual covariance matrix, which guided the introduction of the controls into the analysis. We began by validating the measurement model, followed by tests for convergent and divergent validity. After confirming that the measurement model was valid, we estimated and tested the structural model. We then assessed the overall power of our estimates for overall model fit and for each of the key parameters in our model.

MEASURES

Degree of export success

Measuring the degree of export success or export performance is particularly challenging. In a recent review of 43 empirical studies between 1998 and 2004 of measures of export performance, Sousa (2004) found that there is no general consensus on the exact measure. Nevertheless, entrepreneurial orientation as a capability must reflect the depth and breadth of export success. *Depth* refers to the degree to which firms have not only ventured into export markets but also the extent to which they have been successful. A firm could capture a huge market share in a given market and still not be an accurate reflection of the effect of entrepreneurial orientation. Entering multiple markets indicates that a firm is capable of taking advantage of export opportunities in multiple settings. In other words, the breadth and depth of export penetration is a better reflection of the extent to which a firm is able to leverage its entrepreneurial orientation. Thus, we focus on the *expanse* of export performance (the breadth and depth) on the financial and strategic dimensions of export activities.

We measured the extent to which a firm has been successful at exporting using a number of indicators. Specifically, we used (a) the *growth or reduction in export sales over the last three years* (b) the *number of countries that accounted for most of the exports* (c) the *total number of*

countries exported to and (d) *the number of years a firm has been exporting*. All indicators were measured on the 3-point scale ranging from ‘severely limits – somewhat limits – does not limit.’ The indicators jointly accounted for both the financial success and the extent to which a SME has explored and exploited opportunities in diverse export markets. Increased export sales may indicate the degree of success a firm has in exporting. This generally reflects a firm’s product quality and the ability to overcome exporting hurdles through marketing efforts (Madsen 1989). The number of countries to which a firm exports indicates the ability of the firm to overcome export hurdles in different institutional environments (Miller and Loess 2002). A firm exporting to multiple countries must be able to understand and exploit diverse institutional settings through its marketing and functional capabilities. Finally, *years of export experience* is another indicator of the degree to which a firm sustains its exporting efforts (Cuervo-Cazurra et al. 2007). Firms may learn to overcome liabilities of foreignness over time, even as they work to overcome their liabilities of smallness.

Entrepreneurial Orientation

Three dimensions of EO—innovativeness, proactiveness, and risk taking,—were measured using 9-item 7-point scales developed and tested for reliability by Khandwalla (1977) and Miller & Friesen (1983).

Impediments

The description, evaluation, and reporting of impediments was particularly challenging, given the lack of validated scales. Despite the lack of established measures, it was essential for generalizability to ensure that our measures could be interpreted in the context of prior studies. Thus, the indicators used for measuring functional and marketing impediments closely resembled the indicators identified by (Leonidou 2004): 283). Leonidou (2004) identified 32 empirical studies between 1960 and 2000 on export impediments. The measures for impediments used in the empirical studies classified the indicators for functional and marketing impediments (Leonidou 2004). We discuss each measure below.

Functional impediments

Functional impediments focus on how internal firm factors affect a firm’s capacity to export. In order for a firm to successfully export its products, it must overcome the internal challenges of identifying and exploiting a potential fit between a firm’s products and market needs (Gomez-Mejia 1988). Given the different requirements of foreign markets, this capacity is crucially importance. Engaging in exporting requires firms to make specific investments in learning and implementing an export oriented strategy (Atuahene-Gima et al. 2006). Another critical resource shortage is the availability of human capital. Learning, adapting, and implementing a new export strategy could also require significant levels of absorptive capacity (Zhang et al. 2007). Firms lacking the required personnel could face a significant hurdle even in the presence of resources available to export. Finally, the additional costs incurred in exporting require firms to absorb additional costs while increasing their sales in foreign markets (Cuervo-Cazurra et al. 2007). Low profitability from foreign markets could mean that a firm is either not capable of capturing a sufficient market or that it could lack the internal capability to manage direct and indirect costs

(Katsikeas and Morgan 1994). We used the following as indicators of significant functional impediments to exporting: (a) the *difficulties locating sales prospects* (b) the *difficulties financing export sales* (c) the *lack of management expertise in exporting* (d) the *low profitability of export sales*. All indicators were measured using a three point scale ranging from ‘severely limits – somewhat limits – does not limit.’ The scale measured the extent to which a certain dimension limits realization of export potential. The items are reverse coded so that they reflect lower levels of impediments.

Marketing impediments

Again, marketing impediments refer to barriers that could significantly hamper marketing efforts. We focus on the degree of success a firm has had in marketing activities, which goes beyond the internal abilities to manage exporting as well as overcome regulatory hurdles. We focus on three items regarding obtaining reliable foreign representation (Cavusgil and Zou 1994), which is the ability to carry out promotional activities (Wilkinson and Brouthers 2006), and the costs associated with market development (Sharkey et al. 1989). The indicators used are: (a) the *difficulty identifying reliable foreign representatives* (b) the *up-front costs of market development* and (c) the *sales efforts outside the U.S.* These indicators were measured using a three point scale ranging from ‘limits – somewhat limits – does not limit.’ The scale measured the extent to which a certain dimension limits realization of export potential. The items are reverse coded so that it reflects lower levels of impediments.

Controls

We included the *natural logarithm of the number of full-time employees* as a control for *firm size*. Larger firms have greater access to resources and may not suffer from the same liabilities of smallness as smaller firms. Similarly, larger firms could have greater access to resources (Seyoum 2006) as well as greater capabilities to deploy resources. Controlling for firm size helps us to control for the covariance among firm size, the ability to overcome functional and marketing impediments. We also control for *firm age*. Older firms could possess better learning abilities, established routines, and capabilities (Barker and Kaynak 1992). Controlling for firm age helps us remove the variance associated with internal path-dependent abilities developed over time. Firms growing at a faster rate could either not see the need to export due to growth in local markets or may be able to finance or acquire abilities to enhance export capability (Barnes et al. 2006; Cuervo-Cazurra et al. 2007). Although firms in mature markets may have a greater incentive to export (Czinkota and Ricks 1983), firms experiencing high growth may have greater access to slack resources, in addition to better learning capabilities required to accommodate new structures and processes related to growth (Czinkota and Ricks 1983).

We control for firm growth using *sales growth over the last three years*. Finally, we control for the *geographical location of the firm*. Firms *located in urban* areas could encounter greater sources of information, opportunities, and learning abilities than firms in semi-urban or rural areas. Finally, we control for *environmental dynamism* and *environmental hostility* using the scales provided by Miller & Friesen (1982) and Khandwalla (1977) respectively. Table 4 describes these scales.

Table 4
Parameter estimates and item reliabilities for the proposed Model

Measure	Scale Description	Performance Model	
		Std. Factor Loading	Item Reliability
EO –Innovativeness (Scale: 1-5, strongly disagree to strongly agree)	Tried and tested practices, equipment, and products or services vs. Innovation, technological leadership and R&D	0.78*	0.67
	Many NEW products or services vs. Innovation, technological leadership and R&D	0.70*	0.51
	changes in my products or services have been: Mostly of a minor nature vs. Usually quite dramatic	0.66*	0.59
EO - Proactiveness (Scale: 1-5, strongly disagree to strongly agree)	Responds to initiatives my competitors initiate vs. Initiates action to which my competitors then respond	0.84*	0.73
	the first to introduce new products or services, administrative techniques, etc. often vs. seldom	0.75*	0.60
	Seeks to avoid competitive clashes, preferring a “live and let live” posture vs. Adopts a very competitive “undo the competitors” posture	0.69*	0.84
EO – Risk taking (Scale: 1-5, strongly disagree to strongly agree)	Low risk projects with normal rates of return vs. High risk projects with a chance of very high returns	0.84*	0.66
	Explore potential opportunities gradually through cautious, incremental behavior vs. Take bold, wide-ranging actions to achieve the firm’s objectives	0.77*	0.59
	When confronted with decisions involving uncertainty, the firm typically adopts a bold posture in order to maximize probability of exploiting opportunities.	0.71*	0.49
Dynamism (Scale: 1-5, strongly disagree to strongly agree)	My business RARELY needs to change its marketing practices to meet the competition vs. my business FREQUENTLY needs to change its marketing practices to meet the competition	0.82*	0.50
	The industry in which my business is located is: intensely competitive vs. Minimally competitive	0.79*	0.48
	Actions of the competitor difficult to predict	0.74*	0.51

Hostility	Safe with little threat to my firm's survival and well-being vs. risky with one false step meaning potential disaster objectives	0.77*	0.60
(Scale: 1-5, strongly disagree to strongly agree)	Rich in marketing and investment opportunities vs. Stressful, exacting, hostile, and hard to survive in	0.88*	0.73
	Can control and manipulate the business environment to its advantage vs.	0.89*	0.72
	Initiatives amount to little against the economic and technological forces aligned against me		
Marketing	Difficulties locating sales prospects	0.82*	0.59
Impediments	Identifying reliable foreign representatives	0.74*	0.51
	Up-front costs of market development	0.68*	0.55
	sales efforts outside the U.S	0.80*	0.42
(Scale: 1-3; Severely limits- Somewhat limits- Does not limit)			
Functional	Difficulties financing export sales	0.82*	0.53
Impediments	Profitability of export sales	0.70*	0.60
	Lack of management expertise in exporting	0.89*	0.64
(Scale: 1-3; Severely limits- Somewhat limits- Does not limit)			
Export Success	Change in Export Sales - Last 3 Years (Scale: 1-5; Declining a lot - Growing a lot)	0.92*	0.60
	Destination of Most Exports - Last 3 Years (count)	0.77*	0.72
	# of Countries Exported to - Last 3 Years (count)	0.67*	0.63
	Years Exporting (count)	0.75*	0.74

* p<0.05' **p<0.01; derived from Critical ratio t-stat.

RESULTS

Assessment of Measurement Properties

Convergent Validity

One-dimensionality and convergent validity ensure that all indicators measure a single underlying construct (Bagozzi and Fornell 1982). Given the one-dimensionality of the EO construct and other possible theoretical specifications in the proposed model, we also compare other factor structures before we proceed to assessing divergent validity. We first assess the convergent validity and then compare the proposed factor structure with other relevant factor structures.

We assess convergent validity by examining item loadings and their statistical significance through t-values (Dunn et al. 1994). A *t-value* is the parameter estimate divided by its standard error. A t-value greater than 1.96 or smaller than -1.96 implies statistical significance (Byrne 2006). The greater the factor loadings (while accounting for standard errors), the stronger the evidence for a relationship among the observed indicators with their respective latent factors (Bollen 1989). Table 4 shows that each of the indicators has a significant loading on each construct. Therefore, all indicators were significantly related to their specified constructs. The third column in Table 4 shows the item reliabilities. Item-reliabilities values above 0.50 provide evidence of acceptable reliability (Bollen 1989). Only two items are below the 0.5 level, with the lowest reliability of 0.48. An overall significant loading of items and almost all item reliabilities greater than 0.5 suggest that there is significant evidence of convergent validity. For the overall model, χ^2 statistic (423.24, $p > 0.10$) is small and insignificant, implying that the null hypothesis of covariance matrix equality is not rejected. This implies that the model fit is a good fit with the data. Additionally, the overall degree of fit is good, as reflected in the CFI of 0.91 and the TLI of 0.90, both equal to or above the recommended values of 0.90. The root mean squared error (RMSEA) explains the residual variance of the observed variables. High values suggest high residual variance; smaller values are better. The RMSEA for our model was 0.062, which is between the recommended range of 0.05 and 0.08. Finally, we ran the modification indices for item loadings to assess if fit could be improved by removing certain items. We did not find any significant indications of scale improvement through modification indices.

To assess alternate factor structures that might have been theoretically feasible, we compared the proposed model with the following factor structures: (a) a one-dimensional EO model (b) the combined functional and marketing impediments model. As show in Table 2(a), the proposed model provides significantly better fit than the two aforementioned factor structures. Finally, the *internal consistency* of each dimension is assessed by examining estimates of composite reliability and variance (Hair et al. 1998). Composite reliability explains the degree to which the construct is represented by the indicators. The overall amount of variance in the indicators accounted for by the construct reflects the extent to which the indicators are truly representative of the construct. All reliabilities and average variances extracted and reported in the parentheses along the diagonal in Table 1 exceed the recommended value of 0.7 for composite reliability, as well as the 0.5 for variance explained (Hair et al. 1998). All the parameters are above the recommended value. Overall, we find satisfactory convergent validity.

Table 1
Correlation Table

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Export Success	3.26	0.83	(.82, 70) [§]											
2. Innovativeness	3.39	0.60	0.10	(.74, .53)										
3. Proactiveness	3.48	0.57	0.17*	0.37*	(.80, .61)									
4. Risk taking	3.62	0.79	0.10*	0.34*	0.35*	(.74, .69)								
5. Dynamism	3.12	0.64	- 0.18*	0.15	0.28*	0.33*	(.77, .66)							
6. Hostility	3.07	0.61	- 0.14*	0.22	0.21	0.38*	0.28*	(.82, .57)						
7. Marketing Impediments	1.73	0.51	0.14*	0.19*	0.14	0.14	0.18	0.16	(.79, .67)					
8. Functional Impediments	1.89	0.64	0.14*	0.22*	0.18	0.22*	0.17	0.11	0.123	(.80, .66)				
9. Region Urban/Rural	0.59	0.34	0.02	0.05	0.05	0.06	0.05	0.04	0.04	0.04	1			
10. Firm Age	17.9	19.0	0.09	0.07	0.09*	0.11	0.11	0.09*	0.08	0.06	0.04	1		
11. Firm Size	20.8	30.2	0.10*	0.05	0.12*	0.06	0.10	0.06	0.10**	0.05	0.03	0.08*	1	
12. Firm Sales Growth	3.65	1.40	0.06	0.06	0.09	0.04	0.10	0.05	0.04	0.03	0.07	0.02	0.04	1

[§] Numbers along the diagonal in parentheses indicate reliability and average variance extracted (AVE) respectively

Table 2(a)
Results of CFA

	χ^2 (df)	$\Delta\chi^2(\Delta df)$	RMSEA	GFI	CFI	NFI
Recommended Values	<3.0		0.05-0.08	>0.9	>0.9	>0.9
Hypothesized Performance Measurement Model	524.82 (195)		0.054	0.931	0.921	0.914
Single EO factor Model	589.26 (201)	64.44 (6)	0.055	0.954	0.917	0.943
Single Impediment Model	599.26 (200)	74.44 (4)	0.067	0.941	0.948	0.928

Discriminant validity

Discriminant validity focuses on the extent to which the measures for each constructs are distinctively different from each other. We construct and estimate models for all possible pairs of latent variables within each construct (containing the measurement items). These models include (1) one with the correlation between the latent variables fixed at 1.0, and (2) one with the correlation between the latent variables free to assume any value. The difference in Chi-square values for the fixed (for constrained) and free solutions indicate whether a one-dimensional model would be sufficient to account for the inter-correlation among the construct observed in each pair. A significantly lower Chi-square value for the model in which the trait correlations are not constrained to unity would indicate that the traits are not perfectly correlated and that discriminant validity can be inferred (Bagozzi et al. 1991). Table 5 reports all the 15 possible combinations with estimations of differences in χ^2 between the fixed and free solutions were significant for all the measures. All chi-square differences are significant at the $p < 0.01$ level, indicating strong support for discriminant validity. In addition, the estimated correlations between all pairs of constructs (Table 1) are below the threshold value of 0.90, suggesting that the constructs are distinct. This result provides evidence of discriminant validity.

Table 5
Discriminant Validity

Dimension	Performance Model		$\Delta\chi^2$ ¹
	Constrained Model χ^2 (df)	Unconstrained Model χ^2 (df)	
EO - Innovativeness			
EO – Proactiveness	29.53 (9)	36.21 (8)	6.68
EO – Risk Taking	33.62 (9)	49.69 (8)	16.07
Marketing Impediments	29.54 (14)	37.61 (13)	8.07
Functional Impediments	22.44 (9)	34.21 (8)	11.77
Export Success	31.54 (14)	48.89 (13)	17.35

¹ All differences are significant (for one degree of freedom) at 0.01 level

EO – Proactiveness			
EO – Risk Taking	28.54 (9)	43.21 (8)	14.67
Marketing Impediments	20.69 (14)	34.88 (13)	14.19
Functional Impediments	22.13 (9)	39.38 (8)	17.25
Export Success	24.92 (14)	31.22 (13)	6.30
EO – Risk Taking			
Marketing Impediments	24.72 (14)	30.95 (13)	6.23
Functional Impediments	23.73 (9)	33.53 (8)	9.80
Export Success	24.97 (14)	33.56 (13)	8.59
Marketing Impediments			
Functional Impediments	27.31 (14)	43.63 (13)	16.32
Export Success	33.26 (20)	46.37 (19)	13.11
Functional Impediments			
Export Success	18.27 (14)	31.34 (13)	13.07

Discriminant validity can also be assessed by comparing the average variance extracted (AVE) with the squared correlation between constructs. Discriminant validity among constructs exists if the items share more common variance with their respective construct than any variance that a construct shares with other constructs (Fornell and Larcker 1981). In other words, the AVE for a construct should be substantially higher than the squared correlation between that construct and all other constructs. Although the squared correlations are not shown in Table 1, all the AVEs are above 0.5. A closer observation of the correlations among constructs indicates that the highest correlation is 0.22 – the square of which is 0.05, which is smaller than any AVE estimations. This further demonstrates evidence of discriminant validity for the constructs in this study. Overall, the measurement model satisfies the requirements for convergent and divergent validity.

Construct Reliability and Variance extracted

Estimates of the reliability and average variance are necessary to ensure that the specified items sufficiently represent the constructs. The average variance extracted is the amount in the specified indicators accounted for by the latent construct. The higher the variance values, the more representative are indicators of the latent construct. The variance extracted value is a complementary measure for the construct reliability value (Koufteros 1999). In Table 1, the values in the parentheses along the diagonal indicate the reliability and average variance extracted. The recommended value of variance extracts is 50% or higher. For all the constructs, the reliability was higher than 0.7 and the average variance extracted was greater than 50% for each construct. Overall, the results of the goodness-of-fit of the measurement model, convergent and divergent validities, and acceptable levels of reliabilities and variance lend substantial support to confirming the proposed model.

Results of hypotheses testing

We assessed the overall fit of the structural model using goodness-of-fit measures estimated by Mplus 4.21. More importantly, we used a Robust Weighted Least Squares procedure because it is prone to fewer errors resulting from a smaller sample size (Flora and Curran 2004). Our model

exhibited a reasonable fit with the data. The Chi-square to degree of freedom ratio 2.98 ($\chi^2=572.658$, $df=192$) which is about equal to the recommended level of 3.0. We further assessed model fit using the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI). The CFI for the model was 0.923 and TLI for the model was 0.912. Both fit indices were above the recommended level of 0.9. As an alternative indicator of model fit, root mean squared of error (RMSEA) was 0.052, which falls between the recommended range of 0.05 and 0.08. The results from RWLS estimation with standardized parameter values are shown in Table 2(b). Table 2(b) also lists the direct, indirect, and total effects of three dimensions of entrepreneurial orientation. Although our hypotheses focused on the indirect effects of EO dimensions, the effects of central interest are the indirect effects. The model explains 58.14% of the variance in export success. The results provide support for hypotheses 2a ($\beta=0.03$; $p<0.05$), 2b ($\beta=0.03$; $p<0.05$), 3a ($\beta=0.03$; $p<0.05$), and 3b ($\beta=0.02$; $p<0.05$). We do not find support for hypotheses 1(a) and 1(b). In sum the results show that proactiveness and risk taking play a significant role in reducing market and functional impediments.

Finally, we assess alternate models to ensure theoretical relevance. Testing for alternate models is critical to ensure that rival models do not share the same covariance structure (Bollen 1989). Although numerous alternate models might have been possible, we focused on the most theoretically relevant - (a) a fully mediated model (b) a non-mediated model i.e. direct affects of EO measures and impediments on export success (c) only the direct effects of the impediments (Table 2 (c)). When compared, we find that the proposed model provides a significantly better fit than all the other models. The hypothesized model is significantly different in the dimensions of Chi-Square/df, fit indices, and RMSEA.

Table 2(b)
Direct and Indirect Effects

Mediator	Direct Effect	Indirect Effect	Total Effect
Market Impediment → Export Success	0.26*		
Internal Impediment → Export Success	0.32*		
EO-Innovativeness → Export Success	0.03		
EO-Innovativeness → Functional Impediments → Export Success (H1a)	0.03	0.00	
EO-Innovativeness → Marketing impediments → Export Success (H1b)	0.02	0.00	
Total EO-Innovativeness Effect			0.08
EO-Proactiveness → Export Success	0.21*		
EO-Proactiveness → Functional Impediments → Export Success (H2a)	0.10*	0.03*	
EO-Proactiveness → Marketing impediments → Export Success (H2b)	0.13*	0.03*	
Total EO-Proactiveness Effect			0.27
EO-Risk Taking → Export Success	0.17*		
EO-Risk Taking → Functional Impediments → Export Success (H3a)	0.10*	0.03*	

EO-Risk Taking → Marketing impediments → Export Success (H3b) 0.09* 0.02*

Total EO-Risk Taking Effect 0.22

ϕ (innovativeness, proactiveness) 0.235**

ϕ (innovativeness, risk-taking) 0.233

ϕ (proactiveness, risk-taking) 0.291**

ϕ (Internal impediments, marketing impediments) 0.241**

* $p < 0.05$; ** $p < 0.01$

Table 2(c)
Test for Alternate Models

	χ^2	df	$\Delta\chi^2$ (Δ df)	AGFI	CFI
Hypothesized Model	423.34	214	--	0.90	0.91
Fully mediated	478.29	219	54.95 (5)**	0.84	0.86
Non-mediated	523.58	219	100.24 (5)**	0.81	0.77
Only Impediments	716.29	44	292.95 (170)**	0.71	0.68

Power Analysis

Although the sample size is greater than the generally specified minimum of 200 (Kim 2005; Kline 2005), ensuring that our model has adequate power is essential. We use two different tests to assess the power of our overall model. First, using Arbitrary Distribution Generalized Least Squares (ADGLS) method and the modified F-statistic, we test the ability of the current model to reject the model when it is false (Bentler & Yuan 1999). The advantage of the ADGLS method is that it makes no distributional assumptions. Furthermore, as explained by Bentler & Yuan (1999), the modified F-statistic is effective under conditions of possible non-normal data and small samples, and it also avoids problems with the chi-square statistic when sample sizes are small (Bentler and Yuan 1999). Using EQS™ 6.1 software package to perform this test we find that the power of our model is 82% (Bentler and Yuan 1999). A similar test, Satorra-Bentler rescaled χ^2 test, uses a bootstrap inference method to assess power (Yuan and Hayashi 2003). The overall model power is 81%. Overall, our model has sufficient power to reject false models.

DISCUSSION AND IMPLICATIONS

In this study, we have examined the impact of EO on reducing functional and marketing impediments, followed by the effects of the reduced impediments on performance. By considering a partially mediated model we attempt to explain the black box of export performance. SMEs can overcome the internal lack of capabilities and resources to maneuver successfully in dynamic and uncertain export markets by identifying capabilities that contribute the most to resolving impediments. Understanding this link is fundamental to understand the types of capabilities in

which an SME must invest. Surprisingly, our results suggest that the level of innovativeness did not have a statistically significant impact on the reduction of functional or marketing impediments, whereas both proactiveness and risk-taking had statistically significant impacts on reducing both functional and marketing impediments.

Exporting, an activity that opens new markets is essentially entrepreneurial in nature (Schumpeter 1934). Thus, innovativeness must be a central aspect in export success. Firms must be able to refine existing products or offer new products to meet needs of export markets. Furthermore, new practices or routines must be established in an SME which follows a simple hierarchical structure. Thus, the finding that innovativeness does not significantly reduce functional or marketing impediments is especially surprising. We suggest four potential explanations for this finding.

First, a possible explanation for the findings is that resource strapped SMEs imitate, rather than innovate. This imitation could mean the refinement and adaptation of existing products, services, and technology to better suit current needs rather than the development of new products, services, and technology (Atuahene-Gima and Ko 2001). Thus, innovativeness must be central. However, other EO dimensions could compensate for the limited role of innovativeness. Proactive opportunity seeking and risk taking could partially substitute for a lack of innovativeness. Second, SMEs could prefer to standardize their products or services to take advantage of economies of scale rather than spending their resources on innovations and adaptations. This option is especially appealing to reduce liabilities of smallness of SMEs. Third, managers could be standardizing their products or services to the international market instead of relying on information of uncertain accurate, which could result in the wrong adaptations (Cavusgil and Zou 1994; Lages et al. 2008). Fourth, and most importantly, innovativeness could be important but it may not manifest itself as a firm level outcome or play a role in reducing impediments because its effects are masked. Innovativeness is a high-risk activity that may or may not reduce impediments. Thus, despite high levels of innovativeness, high odds of failure could dictate the realized outcomes.

Hypotheses 2a and 2b suggested that the level of proactiveness in a firm will positively affect firm performance by reducing functional impediments, which would mean that high levels of proactiveness would positively affect firm performance by reducing marketing impediments. We found support for both these hypotheses. These results suggest that proactive firms are better at reducing functional impediments because they are able to bring new products quickly into the marketplace and are also better able to anticipate future demand. This first mover advantage in turn helps with the creation of a competitive advantage over the competition. Also, as suggested earlier, proactiveness could lead to a reduction in marketing impediments because a firm could adopt a proactive marketing strategy, which would protect it from the negative effects of market turbulence (Samli 1993).

Hypotheses 3a and 3b suggested that the level of risk taking propensity would positively affect firm performance by reducing both functional and marketing impediments. These results suggest that risk-taking firms might choose strategies that move away from the status quo, thereby increasing a firm's engagement in process enhancements, new products or services, innovative marketing techniques, etc (Gilley et al. 2002; Gilley et al. 2004).

The model presented in this article could help SMEs better understand how functional and marketing impediments could be handled so as to improve firm export performance, despite significant environmental threats. Our results indicate that an effective way to export, despite the

threats is to proactively seek opportunities and take risks by investing in the exploitation of opportunities. Innovativeness could further enhance exporting by modifying products or practices.

LIMITATIONS

This study is not without limitations. First, our research design was cross-sectional. Longitudinal data could assist in making causal inferences. Although our study shows the association among the factors enhancing export performance, it is not causal. Therefore, the findings must be interpreted with caution. Future studies could increase confidence in our results by using longitudinal data to draw causal inferences.

Second, we should mention that we relied on self-reported data on export performance, which may not accurately reflect the true export performance. Although this approach is consistent with other studies in the export literature and with studies on internationalization or with born-global firms, objective performance measures would have been desirable. Because the SMEs in our sample are not publicly traded, this data was not available from outside sources. On the other hand, subjective assessments from managers are usually accurate. Managerial assessment could more accurately reflect export performance because it could be distorted by different accounting methods and yearly fluctuations in sales and employees (Daily and Dollinger 1992).

Third, we did not have highly accurate measures to assess the functional and marketing impediments. We justified our measures based on an extensive review by Leonidou (2004). Nevertheless, there is room for improvement in our measures for impediments. Although it is difficult to make objective measures of impediments, much of the research on obstacles faced by firms, uses subjective measures. Future studies could derive assessments from different managers in a firm. Such multi-method approaches would probably provide more reliable assessments of the impediments faced by SMEs

CONCLUSION

With increased global trading, opportunities to export are also increasing. These opportunities are especially pertinent for SMEs because of their economic role and their contribution to job creation. Yet, the liabilities of smallness create significant impediments to exporting. We attempt to explain how exporting as an entrepreneurial activity may be explained by EO. By focusing on the direct and indirect effects of EO on export performance, we found that proactiveness and risk taking are crucial capabilities in reducing the negative effects of the internal impediments. Given the limited capabilities of SMEs to develop unique export capabilities, leveraging existing EO may provide an exporting advantage.

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