



Export performance: multiple predictors and multiple measures approach

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Abstract

Purpose – The purpose of this paper is to examine the antecedents of export performance within the parameters of the structure-conduct-and-performance (SCP) paradigm, resource-based view (RBV), rational choice (RC) and perceptual view (PV), theoretical templates.

Design/methodology/approach – The study surveyed continuing manufacturing exporters from New Zealand ($n = 118$) using an electronic method. Linear regression analysis was used to determine the relationships among the groups of predictors and three types of measures.

Findings – The results found that strategic factors (encapsulating RC) were strong predictors of both export intensity (EI) and export intensity growth, followed by export barriers (representing PV). Conversely, firm factors (representing an amalgamation of SCP and RBV variables) generated lower explanatory power in predicting export performance. Regarding measures of export performance, EI carried the highest efficacy.

Practical implications – This research suggests export performance depends primarily on deliberate strategic initiatives (RC) (regarding, products, markets and approaches to order generation), and implicitly challenges the resource and natural selection based advantages inherent in firm factors.

Originality/value – This is one of the few studies on export performance to test the explanatory power of competing theoretical views using a multiple measures approach. Insights from this research extend to the very definition of an internationalizing SME with significant implications for export researchers.

Keywords International marketing, Firm performance, Strategic marketing, Cross-cultural marketing, Export marketing, SME marketing

Paper type Research paper

Introduction

Research on export performance has expanded exponentially since Tookey's (1964) seminal work nearly half a century ago. The increase in research interest has emanated from a greater appreciation for the various macro and micro-level benefits associated with export development. At the macro-level, superior export performance is a cost-effective vehicle for economic growth and its trickledown benefits encompass employment creation, larger base for collection of tax revenue and a general improvement in the standards of living. There are countless benefits at the firm-level including opportunities for growth, larger market shares, better margins, diversification of risk and improvements in capacity utilization. As such, export performance is the single most researched construct in export marketing (Leonidou *et al.*, 2010). While reflecting on the major



research topics in international business, Griffith *et al.* (2008) indicate empirical investigation of the antecedents and consequences of export performance remains a paramount subject and will probably continue to dominate global marketing dialogue in the future.

Antecedents of export performance

In its widest context export performance addresses outcomes of export behavior at the firm or export venture level. Underpinning such outcomes are numerous antecedents which also serve as potential explanatory variables. In a comprehensive meta-analysis, Gemunden (1991) notes the existence of manifold explanatory variables to export performance. This multiplicity in the number of variables arises from the fact that the export performance dialogue is spread over a large pan-disciplinary research landscape which includes *International Business*, *International Marketing*, *International Entrepreneurship*, *Small Business Management* and *International Trade*. Additionally there are at least 40 measures for encapsulating the explanatory power of these predictor variables (Katsikeas *et al.*, 2000). As a result, inconsistencies regarding conceptualization and operationalization are prevalent within the export performance discourse. However, some milestones have been made over the past two decades especially in the realm of identifying and testing the antecedents or drivers of export performance (see Cavusgil and Zou, 1994; Chetty and Hamilton, 1993; Morgan *et al.*, 2004; Sousa *et al.*, 2008).

Such antecedents of export performance are commonly explored in the context of three major theoretical templates namely, the structure-conduct-and-performance (SCP) paradigm, the resource-based view (RBV) of the firm, and rational choice (RC) (Cavusgil and Zou, 1994; Morgan *et al.*, 2004). For instance, some streams of research (e.g. Freeman *et al.*, 2012; Mittelstaedt *et al.*, 2006; Zhao and Zou, 2002) use the SCP view to link export performance to market-based factors such as location and industrial classification. Others employ firm factors as proxies for resources, implying a RBV of the SME exporter (see Baldauf *et al.*, 2000; Dhanaraj and Beamish, 2003; Kalafsky, 2004). Still others apply a third theoretical lens suggesting export performance arises from specific strategic initiatives and is a matter of RC (see Brouthers and Nakos, 2005; Francis and Collins-Dodd, 2000; McNaughton, 2003). Additionally, the past decade has seen the emergence of a fourth view based on managerial perception. There is a relatively new and expanding vein of empirical research (e.g. Altintas *et al.*, 2007; Julian and Ahmed, 2005; Köksal and Kettaneh, 2011) suggesting that the perceptual view (PV) that underlies comprehension of and responsiveness toward export development challenges, plays a role in driving export performance. However, to date few studies have examined concurrently, the relative explanatory power these four theoretical perspectives embody. Additionally, empirical literature on export performance has continued to burgeon outside the confines of the afore-mentioned theoretical templates.

The focus and contribution of this paper is two-fold. First we nestle a suite of antecedents of export performance within the boundaries of the four primary theoretical drivers. Our choice of specific antecedents is based on both extant literature and compatibility with the theoretical framework. Second, our subsequent empirical analysis draws comparisons across several drivers and the underlying theoretical templates they represent. At stake is answering a confounding question for SME export performance. Presently, research suggests export performance is: first, an artefact of the operating environment (SCP); second, a function of resources (RBV); third, a question of deliberate strategic choice (RC); and fourth, a manifestation of managerial attitude and perception (PV). Pitting these theoretical templates contributes toward a better

understanding of export performance but also the very definition and foundation of an internationalizing SME.

Theory and hypotheses

Figure 1 depicts the antecedents of export performance and the theoretical basis on which they have been included in this study. The collection of firm, strategic and perceptual factors used in this study has been adapted from past research (see, Dean *et al.*, 2000; Gertner *et al.*, 2006; Hoang, 1998). Additionally, our variables can be considered valid in that they are consistent with the antecedents of export performance identified in Sousa *et al.*'s (2008) review. Thus our approach attempts to paint a more holistic picture of the manifold variables influencing venture level export performance. In the remainder of this section we review pertinent literature before deriving testable hypotheses under the auspices of SCP, RBV, RC and PV.

SCP

SCP is an industrial organization theory postulating that the performance of firms within a market or industry is connected to distinguishing features of the industry including resources, clusters, regulation and competitive intensity (Barney, 1986). In export marketing literature, the SCP view can explain levels or likelihood of internationalization as well as outcomes of such endeavors especially export performance (Cavusgil and Zou, 1994; Morgan *et al.*, 2004). However, it is important to mention that the SCP view applies particularly to the firm factors that are interconnected with the external operating environment. Thus we use SCP to derive hypotheses *H1a*, *H1b* and *H1c*, using the firm factors of location, industry classification and nature of product.

The SCP view suggests location can influence the performance of a venture. Rewards and handicaps emanate from different sets of regulations in particular investment policies, incentives, taxes and remittances in each area or industry (Mittelstaedt *et al.*, 2006). For instance, firms located close to ports or national borders show a greater propensity to engage in successful exporting. Location advantages can also ensue from external economies of scale associated with clusters (Fernhaber *et al.*, 2008). Regional clusters of SMEs can attract crucial support services such as consolidation warehouses, maritime insurance companies, freight forwarders and customs clearance agents. Where networks are embedded within such clusters, they

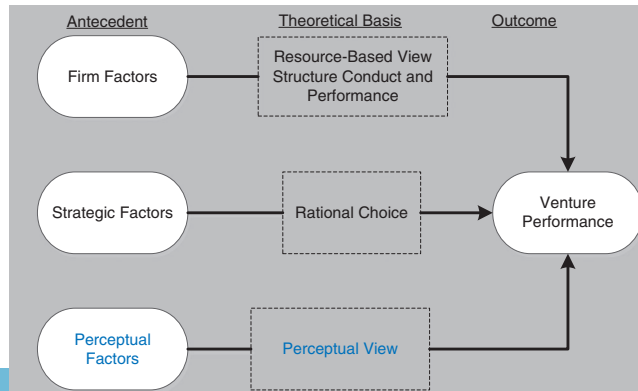


Figure 1.
Drivers of venture level
export performance

become vehicles for internationalization through information and knowledge exchange (Freeman *et al.*, 2012):

H1a. Location has an effect on export performance.

The SCP paradigm and Porter's (2000) models indicate that industry may have an effect on export performance. For instance, intense (within industry) domestic competition creates high performing exporters (Sakakibara and Porter, 2001). Those exporters become net importers of best business practices which further enhance their competitive position in the domestic market. A stronger competitive position in the domestic market leads to more intense competition and this self-perpetuating cycle leads to further performance improvements. Thus specific domestic industries may possess well-entrenched positions of power in export markets, more so if augmented by government assistance (Yerger, 1996). However, this view applies predominantly to MNE operations in large globalized industries. Regarding SME exploits, literature suggests to the contrary that complex and competitive domestic industries may scupper export performance (Williams, 2012; Zhao and Zou, 2002):

H1b. Industrial classification has an effect on export performance.

According to Christensen *et al.* (1987) and Julian and O'Cass (2004) the nature or type of product may influence the export performance of the firm. This is because the SCP view suggests the existence of fundamental differences between industrial and consumer markets. For instance, Julian and O'Cass (2004) have indicated that patented and differentiated industrial products are more likely to command better prices and market share than generic products. On the other hand non-durable consumer goods require robust distribution and marketing systems and the need for adaptation is typically higher in order to accommodate particular tastes and preferences (Christensen *et al.*, 1987). Further, product life cycles are typically shorter thereby preventing a firm from enjoying a sustained period of growth within which to recover initial costs of product or market development:

H1c. Type or nature of product has an effect on export performance.

RBV

While most of the influential work on RBV is associated with Wernerfelt (1984, 1995), this theoretical template is thought to originate from Penrose's (1959) work on the growth of the firm. In its broadest scope, RBV suggests that sustainable competitive advantage and ultimately performance arise from ownership and application of tangible and intangible resources. In the realm of entrepreneurial export research, there is increased emphasis on access (to) and leveraging (of) inimitable resources as opposed to ownership (Etemad, 2004). Empirical validation of this theoretical template has utilized firm factors such as firm size, age and export experience as proxies for invaluable resources. There is a stream of research which supports the proposition that size, age and experience have an effect on export performance. We use the RBV to develop *H1d*, *H1e* and *H1f*, focussing on firm size, firm age and export experience.

Firm size continues to attract ample attention in export marketing research. For instance, of the 52 studies published between 1998 and 2005, 20 made reference to

the firm size/export performance relationship (Sousa *et al.*, 2008). Although some studies have suggested that scale influences performance only to a point (Baldauf *et al.*, 2000; Duenas-Caparas, 2007), the scale and scope-related benefits of size are well established in extant literature (see Zhao and Zou, 2002). Firm size positively influences performance because larger firms may have better managerial talent, dedicated exporting department with the requisite international marketing expertise, higher investment in R&D, higher technological intensity, and differential advantages pertaining to new product development and customization (Dhanaraj and Beamish, 2003; Kalafsky, 2004; Zhao and Zou, 2002):

H1d. Size has a positive effect on performance.

Apart from the case of rapidly internationalizing firms, firm age largely reflects time spent in the domestic market (Oviatt and McDougall, 1994). A lengthy gestation period can impede performance because of domestic market inertia or orientation. When such an older firm eventually engages the export market, it has to adopt reverse learning mechanisms to eliminate the detrimental domestic market tendencies (Knight and Cavusgil, 2004). Further, some studies (e.g. Bloodgood, 2006; Mudambi and Zahra, 2007) have suggested that performance may also decline with age as the SME loses the vibrancy it once possessed as an entrepreneurial start up. Conversely younger firms will probably perform better because they have a predisposition to employ aggressive market-oriented approaches to business:

H1e. Age has a negative effect on performance.

Regardless of the path to or speed of internationalization, exporting is principally a developmental process and much is riding on the acquisition of knowledge and experience (Johanson and Vahlne, 2009). Thus, for inexperienced exporters, liability of newness is a legitimate threat to successful operations (Hannan and Freeman, 1984). With increased export experience, firms have the opportunity to learn the ropes and also gain legitimacy. For these reasons several studies (e.g. Cavusgil and Zou, 1994; Christensen *et al.*, 1987; Dean *et al.*, 2000) suggest export experience advances export performance:

H1f. Export experience has a positive effect on performance.

RC

RC is a neoclassic theory that describes how marketplace behavior is influenced by individual choices based on evaluation of alternatives and recognition of utilities associated with particular alternatives (Hechter and Kanazawa, 1997). Of the very limited stream of literature that has attempted to model internationalization using a behavioral perspective (e.g. Eshghi, 1992; Jaffe and Pasternak, 1994; Lautanen, 2000), indications are that exporting is inherently a RC involving the evaluation of stimulus, firm capabilities and goals, as well as facilitating and inhibiting factors. Similarly, export performance reflects a RC in that firms can evaluate the cost benefit profile of various strategic alternatives before making a final choice. It is noteworthy that what constitutes a rational strategic initiative may not be uniform from one firm to the next. For instance, there is a stream of research (e.g. Muñoz-Bullón and Sanchez-Bueno,

2011) that suggests that hampered by limited resources, experience and international exposure, a RC for some SMEs may be to follow a narrow product focus and a concentrated market approach with few transactions, in order to avoid the burden of multinationality. However, for most exporters a RC for stimulating venture level performance focusses on embracing the challenge of multinationality by developing robust product portfolios, continuous transactions, multiple export destinations and proactive approaches to export market development and expansion (Chetty and Campbell-Hunt, 2003; Eusebio *et al.*, 2007; Gertner *et al.*, 2006; Kaynak and Kuan, 1993). We use the RC perspective to develop hypotheses *H2a-H2e* focussing specifically on product lines, order continuity, export destinations as well as explorative and exploitative approaches to export sales generation.

Exporters with multiple product portfolios tend to have a sound product strategy and can influence their margins and revenues using particular product mixes (Christensen *et al.*, 1987; Kaynak and Kuan, 1993). Such firms tend to have robust product strategies and also understand the imperative to drop under-performing products and replace them with more innovative offerings (Adalet, 2009). These exporters also have a greater appreciation for product line extension and adaptation. They engage in meticulous adaptation of products even for psychically closer markets on the pretext that no two markets (including culturally adjacent markets) are identical (Chetty and Campbell-Hunt, 2003):

H2a. Robust product mix has a positive effect on performance.

Although the short-term effect of increasing transactions (or orders) may be a rise in resource needs, the long-term effect is higher profits (Chetty and Campbell-Hunt, 2003). Additionally, multiple consistent transactions suggest repeat business or continuity, a vital success factor for any business in general and for exporters in particular. Indeed, a perpetual deficiency standing in the way of export success for SMEs is the inability to generate a steady stream of orders. Firms lacking the capacity to garner continuous orders tend to adopt *ad hoc* approaches (to export management) which are fundamentally at odds with the antecedents of export success including pre-planning and commitment:

H2b. Order continuity has a positive effect on performance.

Dispersion of sales among several export destinations allows an exporter to diversify risk and reduce the marginal impact of exposure in particular markets (Eusebio *et al.*, 2007). Although Piercy (1981) associated market concentration with superior export performance, there is a well-developed stream of early (e.g. Cooper and Kleinschmidt, 1985; Hirsch and Lev, 1971) and more recent (e.g. Gertner *et al.*, 2006; McNaughton, 2003) literature, highlighting the performance benefits of diversification. According to Yeoh (2004), market diversification fosters organizational learning culminating in increased flexibility, increased market knowledge and less dependence on individual markets:

H2c. Diversification of export markets has a positive effect on performance.

Exporters considering new market development have to design lead generation approaches to explore the market. For purposes of exploration, the basic approach

should be to produce sufficient leads from which to pre-qualify prospects (Cravens and Piercy, 2006). A large number of initial leads is vital because conversion rates (of prospects to actual export orders) tend to be low. A proactive approach is thus necessary when exploring a new market for potential clients. In recent years such proactive prospecting has tended to exploit information and communication technology including e-commerce, databases and web sites (Nguyen and Barrett, 2006; Lu and Julian, 2007). Conversely firms taking a conservative or reactive approach probably face a more arduous challenge to international expansion since they have no control over referrals and unsolicited orders. Exploitation focusses on growing sales or expanding market share in the current market (s). In such a market, the exporter has a clear customer profile or target market and can thus generate and qualify leads on the basis of what is already known about the segment. In this regard, specific proactive techniques such as trade shows, exhibits, product demonstrations and customer visits become vehicles for generating additional orders from the current customer base. Exploitation calls for careful use of relationship management as the exporter aims for higher market share by engaging in affiliative or consultative selling (Cravens and Piercy, 2006). Thus with respect to both new market exploration and current market expansion, a proactive approach is indispensable to the quest for superior export performance:

H2d. Proactive exploration has a positive effect on performance.

H2e. Proactive exploitation has a positive effect on performance.

PV

The export barrier and export performance discourse is often approached from two dissimilar perspectives. From an *International Trade* perspective, export barriers constitute an actual or objective challenge that distorts efficiency of an economic system while stifling export performance at the national or aggregate level (Doern, 2009; Porto, 2005; Ratnaik, 2012). However, from an *International Marketing* standpoint, export barriers are largely perceptual as they reflect mental models associated with interpreting and responding to the export development undertaking (Yannopoulos and Kefalaki, 2010). This latter view is particularly compelling because it investigates performance at the micro or export venture level. Specifically, this perspective argues that export outcomes can be explained by attitude toward or perception of risk, resource-needs, cost, complexity and profitability of export development (Leonidou *et al.*, 1998). Until recently this stream of research on export barriers was detached from the export performance dialogue mainly because customarily the assumption had been that barriers have a universal negative effect on performance (Cicic *et al.*, 2002). However, an emerging sub-stream of research (e.g. Julian and Ahmed, 2005; Köksal and Kettaneh, 2011) suggests that depending on managerial perception, barriers can actually provide a trigger or calibrating mechanism (Kahiya, 2013) with the potential to induce superior export performance. Thus the need to overcome or pre-empt certain barriers gives the firm an opportunity to realize tangible improvements in export performance. We construct hypotheses *H3a-H3h* focussing on perception of market attractiveness, financial readiness, market mix adaptation, managerial inadequacies, resource mobilization, procedural factors, knowledge and experience and regulatory factors.

Market attractiveness refers to how favorably managers evaluate the stimuli associated with export development. Barriers constituting this factor include, low perception of profitability, foreign competition in overseas markets, high perceived risk in selling abroad (Arteaga-Ortiz and Fernandez-Ortiz, 2010) unfamiliarity with foreign laws, inability to identify foreign opportunities, language and cultural barriers, and high cost of overseas travel (Ramaseshan and Soutar, 1996). Thus perception of market attractiveness is based on risk-return relationships associated with the export opportunity (Leonidou *et al.*, 1998). An attractive market would be associated with opportunities for profits and growth while an unattractive market would be perceived as risky, costly or complex:

H3a. Perception of market attractiveness has a positive effect on export performance.

Managers predisposed to undertake the requisite financial preparation ahead of the first export transaction are bound to succeed (Gabrielsson *et al.*, 2004). Financially ready managers are proactive when it comes to minimizing foreign exchange risk, securing working capital financing, or funding the cost of market development. Such managers are also aware of the impact inflation and interest rates may have on the cost of financing. Most importantly, they ought to possess adequate financial flexibility to absorb transportation costs which can be high especially for New Zealand exporters (Shaw and Darroch, 2004). These exporters are primed to thrive because they pre-empt the cash-flow disruptions that most ill-prepared exporting SMEs are vulnerable to:

H3b. Financial readiness has a positive effect on export performance.

Standing in the way of export success is the reluctance of exporters to develop a unique market mix for the export market. Market-mix adaptation requires managers to recognize the overall need for customization, acknowledge product usage differences and make the necessary modifications to price, promotion and delivery of after-sales service and support (Leonidou, 2004; Sullivan and Bauerschmidt, 1990). Adaptation of part, or the entire market mix, introduces additional cost but also induces performance improvements due to increased precision in addressing needs of the target market (Sousa and Lengler, 2009):

H3c. Market mix adaptation has a positive effect on export performance.

Managerial competencies remain a fundamental consideration to understanding the export behavior of the firm (Rundh, 2007). Literature identifies several managerial elements that influence exporting outcomes (see Moini, 1995). Further, these factors can facilitate or inhibit successful export operations. Where such factors constitute deficiencies, they become a constraint to superior export performance. The factors that can inhibit export performance include lack of management time, lack of effort, domestic market focus and low cost to benefit expectations (Sullivan and Bauerschmidt, 1990). In a recent study, Andersson and Floren (2011) suggest these managerial inadequacies arise from an inability to focus on priorities, incorporate proactive initiatives, and adopt appropriate managerial roles:

H3d. Managerial inadequacies have a negative effect on export performance.

Resources consumed in the conversion process for the manufactured exports are just as vital as financial inputs discussed above. Exporters that can identify areas of need and quickly address resource gaps will attain superior performance. Areas of resource shortages for SMEs include cost and also availability of skilled personnel, production capacity and quality assurance requirements (Morgan and Katsikeas, 1998). While research on MNE performance suggests the importance of generating or owning resources, SME internationalization appears to suggest a conceptual shift from ownership to mobilization or leveraging of resources (Czinkota, 2002):

H3e. Resource mobilization has a positive effect on export performance.

Procedural challenges demand a thorough understanding of the international sales value chain. Some of the procedural challenges that may affect performance include handling of export procedures, collecting and transferring funds, dealing with strong domestic currency and competing with domestic firms in overseas markets (Leonidou, 2004). Procedural factors are thus both logistical and strategic. If mismanaged, these procedural obstacles may metamorphose into sources of competitive disadvantage that will ultimately affect export performance (Dean *et al.*, 2000):

H3f. Procedural challenges have a negative effect on export performance.

Knowledge and experience encompasses factors such as knowing business practices, handling export documentation, marketing experience, and locating and contacting distributors (Leonidou, 2000). Business etiquette and time-style differ markedly across countries and it is fundamental to recognize the subtleties constituting business practice in a target market. Exporters often need an encyclopedic command of the complexities of export documentation in order to avoid delays, fines, penalties and ultimately loss of business. Exporting SMEs also have to be adept at locating potential distributors and managing the subsequent relationship. To this end, export managers often utilize “export memory content” or prior knowledge, as well as knowledge gained through learning (Zheng *et al.*, 2012; Sy-Changco *et al.*, 2005). Indeed, knowledge of and experience gained in serving an offshore market is integral to successful international operations (Fillis and Lee, 2011):

H3g. “Knowledge and experience” has a positive effect on export performance.

Trade-related factors are exogenous to SME exporters and are demonstrative of the impact of legal and political obstacles on the exporting firm’s operations (Arteaga-Ortiz and Fernandez-Ortiz, 2010). Included in this construct are foreign tariff barriers, foreign non-tariff barriers and foreign government restrictions and regulations (Korneliusen and Blassius, 2008; Shoham and Albaum, 1995). Leonidou (2004) labels such elements “high impact” in that they have a systemic inhibitive effect on SMEs. Further, exporting SMEs are frequently in no position to mobilize resources or develop counter-measures to mitigate their effects. Thus trade-related barriers have a negative effect on export performance (Köksal and Kettaneh, 2011):

H3h. Trade-related regulatory measures have a negative effect on export performance.

Measures of export performance

Measurement and operationalization of the export performance construct remains a daunting undertaking. First, performance data are considered commercially sensitive and SME's generally exhibit reluctance toward divulging such data (Brouthers and Nakos, 2005). At a philosophical level, Mudambi and Zahra (2007) have probed the importance of individual export performance indicants, implying that for most export start-ups, survival alone constitutes some measure of success. Further, there is evidence that some exporters will "feign survival" by committing to staying the course, when they are losing money (Lages and Lages, 2004). This is often done in the hope of capitalizing on first-mover or learning advantages and thus be positioned competitively in the future. Additionally, different interpretations of "unit of analysis" introduce methodological challenges. Although the common practice is to focus on the firm, this often obscures the more compelling dynamics associated with specific export ventures or export product portfolios (Sousa, 2004). Moreover, literature assumes implicitly (and in some instances inappropriately) that all exporting firms have homogenous objectives. Diamantopoulos and Kakkos (2007) have argued that export performance has to be evaluated against planning horizons and strategic reference points because performance is idiosyncratic to the firm. Finally and perhaps most importantly, there are between 42 (Katsikeas *et al.*, 2000, p. 497), and 50 (Sousa, 2004, p. 8) indicants of export performance.

In an attempt to overcome some of the shortcomings detailed above, some research (e.g. Lages and Lages, 2004; Zou *et al.*, 1998) has focussed on developing informative measures of performance. However, subsequent studies have not attempted to utilize the STEP (Lages and Lages, 2004) or EXPERF (Zou *et al.*, 1998) scales. In spite of these setbacks, there are some decisive areas of agreement. There is consensus that individual indicants embody different underlying attributes (Katsikeas *et al.*, 2000; Shoham, 1998; Sousa, 2004). For instance, Shoham (1998) describes measures of performance as incorporating sales, profits or change; Katsikeas *et al.* (2000) categorize performance measures on the basis of effectiveness, efficiency and adaptiveness, while Sousa (2004) divides them into a dichotomy comprising objective and subjective scales. Studies also concur adoption of multiple measures is vital because no individual indicant adequately captures the export performance construct (Aaby and Slater, 1989; Lages and Lages, 2004; Zou *et al.*, 1998). In this regard, objective (Sousa, 2004) or metric measures appear to not only carry informative explanatory power but also provide a sound basis for replication and comparison (Chetty and Hamilton, 1993). Thus for this study we adopt three of the most commonly used indicants of export performance namely, export sales revenue (ESR), export intensity (EI) and export intensity growth (EIG) (Sousa, 2004). ESR is operationalized as annual export sales turnover (Shoham, 1998; Wolff and Pett, 2000), EI is the fraction of exports as percentage of sales turnover (Stöttinger and Holz Müller, 2001; Yeoh, 2004) while EIG is a measure of change in export intensity (Styles, 1998; Styles and Ambler, 2000). Use of these measures allows for valid comparisons across other studies. For studies employing a suite of analogous measures (see Beamish *et al.*, 1999; Dean *et al.*, 2000; Francis and Collins-Dodd, 2000; Gertner *et al.*, 2006). Additionally we focus on the export venture as the unit of analysis as opposed to the firm.

Methodology

Data and methods

Data for this study were collected as part of a larger survey investigating export activity among manufacturing SMEs. The data were drawn from firms affiliated with New Zealand Manufacturers and Exporters Association (NZMEA) using a simple

random sampling procedure. With a membership close to 1,500, NZMEA is the foremost organization representing the interests of a large and diverse base of manufacturing firms. From within this working population we focussed on a specific sample frame comprising 557 continuing manufacturing exporters. Data were gathered from this group using an electronic instrument. The instrument was expressly designed to flow from general to specific with separate sections for firm demographics, export profile and export barriers. These sections correspond to the three drivers of performance utilized in the analysis. The firm demographics section solicited responses to open and close-ended questions pertaining to frequently researched firm characteristics including industrial classification, sector, location, size and age. Regarding export profile, respondents were asked to indicate export experience, the name(s) and number(s) of export destinations, products and product lines, as well as frequency of export orders to export markets. In connection with export orientation, respondents were asked to self-classify their sales generation strategy (in both current and future markets) (Leonidou, 2000) as either being proactive or reactive. Thus we focussed on specific factors suggestive of strategic postures as opposed to generic or overarching strategies.

Regarding export barriers, we used a 42-item scale adopted from Dean *et al.* (2000), with modifications to language and wording of some scale items. Initially, the scale had been developed through a careful examination of export barrier literature published in 1990s. As such, the scale reflected some of the influential studies of that decade including Eshghi (1992), Katsikeas and Morgan (1994), Leonidou (1995), Naidu and Rao (1993) and Shoham and Albaum (1995). Kahiya (2013, p. 12) provides an updated version of this scale together with a list of recent studies focussing on similar scale items. This scale covers the internal and external dimensions of the export development undertaking and can be considered representative in that it includes the majority of scale items identified in Arteaga-Ortiz and Fernandez-Ortiz's (2010) as well as Leonidou's (2004) reviews of export barrier research (Kahiya, 2013).

Respondents were asked to evaluate the influence of perceived export barriers to their export operations on a five-point Likert scale anchored by phrases "not important" to "very important" (see Korneliussen and Blassius, 2008; Shoham and Albaum, 1995; Sullivan and Bauerschmidt, 1990). Following exhaustive integrity and functionality checks, the final electronic survey was distributed (as a hyperlink embedded within an e-mail) together with a letter, signed by the CEO, explaining the benefits of the study and encouraging participation. The survey instruments were forwarded to the 557 exporters on 18 March 2010 with a reminder being sent a week later.

Sample properties

A total of 145 export ventures responded to our survey. However, after excluding (16) intermittent and non-exporters our final sample comprised 129 continuing exporters, representing an effective response rate of 23.8 percent. Both the sample size and response rates are comparable to export performance research conducted elsewhere. For instance, Brouthers and Nakos (2005) attained 126 units/34 percent, Dhanaraj and Beamish (2003); 89 units/24 percent, Julian and Ahmed (2005); 122 units/18 percent, Shoham (1998); 93 units/40 percent. To determine non-response bias we synthesized the approaches suggested by Armstrong and Overton (1977), Filion (1975) and Hawkins (1975), into four components. First, we compared first wave respondents against second wave or late respondents (Czinkota and Ursic, 1991). Second, we compared 20 randomly

selected non-respondents to known profiles of continuing SME exporters (Moini, 1995). Third, we checked representativeness of sample against the Australia New Zealand Standard Industrial Classifications' (ANZSIC) industrial groupings (Ramaseshan and Soutar, 1996). In all three instances, univariate statistics (ANOVA and *t*-tests) did not divulge substantial differences. Fourth, ten randomly selected firms were asked in subsequent telephone interviews, why they had chosen to not participate (Shoham, 1998). The reasons for non-participation were random, diverse and non-systematic.

Profile of exporting SMEs

For purposes of classifying firms by region, we adopted Statistics New Zealand's typology which divides New Zealand into 11 main regions with seven on the North Island and the remainder on the south. Table I illustrates that a large portion of the firms in this survey operate from the Canterbury region (an area known for clusters of high-tech manufacturing firms), with significant representation from the other major regions including Otago, Auckland and Wellington. These levels of representation are consistent with the prevalence of trade-based activities in each region. To understand the diversity of manufacturing activities, we used the ANZSIC code to group the export ventures. At the two-digit level, ANZSIC separates manufacturing firms into 15 classes (C11-C25), representing a wide variety of consumer and industrial product manufacturers. However, our sample did not include printing, transport equipment and petroleum manufacturers. Further, the sample profile presented in Table I also combines primary metal, fabricated metal and metal container manufacturers into one category. Overall 40 percent of the firms are food product and beverage manufacturers. These firms engage in various degrees of processing for the vibrant agricultural sector. In all, 26 percent of the sample considers the European Union a major export destination followed by Asia and Australia with 21.6 and 20.8 percent, respectively. While Australia remains a key export destination the increasing importance of the high growth Asian economies is self-evident.

Independent variables

We used exploratory factor analysis (EFA) to identify the underlying dimensions to the export barrier scale. We employed varimax rotation with the eigenvalue approach while suppressing low coefficients for individual items. Eight underlying dimensions based on a smaller scale of 35 items, emerged from this analysis. Excluded from this scale are the following individual items, knowing how to market overseas, shipping and distribution overseas, lack of export market commitment, lack of management aspiration for export development, technical inferiority of products, lack of government assistance and inconsistent government export policy. Table II gives a detailed description of these results. Each individual item has a satisfactory loading (>0.50). Also, each component has an eigenvalue (>1) and Cronbach α 's are greater than the frequently used cut-off of 0.70 (Cronbach, 1951). Overall, the eight factors emerging from this analysis are comparable to components developed in some recent studies including Julian and Ahmed (2005), Korneliussen and Blassius (2008) and Shaw and Darroch (2004).

Overall the export barrier scale had an acceptable Kaiser-Meyer-Olkin measure of sampling adequacy (0.845) and the approximate χ^2 for Bartlett's sphericity test was significant. Additionally, we tested this scale for common method variance (CMV) (Doty and Glick, 1998) using Harman's (1976) one factor method. Our analysis retained

Table I.
Profile of manufacturing
exporters

Region	%	Manufacturing sector	%	Export destination	% ^a
Canterbury	21.6	Food product manufacturing	24.0	EU	26.4
Otago	16.0	Beverage and tobacco	16.0	Asia	21.6
Auckland	12.8	Textile/leather/clothing/footwear	10.4	Australia	20.8
Wellington	10.4	Chemical product manufacturing	9.6	Great Britain	16.0
Northland	8.8	Machinery and equipment	8.8	North America	12.8
Southland	8.0	Wood product manufacturing	8.0	China	9.6
Manawatu-Wanganui	7.2	Polymer and rubber manufacturing	6.4	Japan	7.2
West Coast	5.6	Furniture and other manufacturing	6.4	South/Central America	2.4
Waikato/B.O.P/Gisborne	4.8	Metal product manufacturing	5.8	Africa/Middle East	1.6
Hawkes Bay/Taranaki	3.2	Pulp and paper manufacturing	5.6		
Marlborough/Nelson/Tasman	1.6				

Note: ^aThe total exceeds 100 percent because respondents could select more than one market/region as a major export destination

Factor	Barrier items	Factor loadings	Cronbach α	Eigenvalue	Variance explained (%)
Perception of market attractiveness	Low perception of export profitability	0.80	0.88	13.357	11.96
	Foreign competition in overseas markets	0.76			
	High perceived risk of selling abroad	0.72			
	Unfamiliarity with foreign laws	0.71			
	Inability to identify foreign opportunities	0.62			
	Language and cultural barriers	0.53			
Financial readiness	High costs of overseas travel	0.53	0.78	2.960	9.17
	Minimizing exchange risk	0.71			
	Financing exports (working capital)	0.70			
	Cost of market development	0.68			
Market mix adaptation	Inflation and interest rates	0.56	0.79	2.232	8.50
	High transportation costs	0.56			
	Need to adapt products	0.73			
	Pricing and promotion	0.65			
	Product usage differences	0.64			
Managerial considerations	Providing after sales service	0.56	0.80	1.965	7.95
	Lack of management time	0.78			
	Lack of effort	0.60			
Resource mobilization	Low cost to benefit expectations	0.59	0.77	1.874	7.76
	Domestic market focus	0.58			
	High cost of labour	0.77			
	Insufficient productive capacity	0.70			
Procedural factors	Lack of skilled and flexible labour	0.65	0.76	1.557	6.89
	Quality assurance requirements	0.60			
	Knowing export procedures	0.69			
	Collecting and transferring funds	0.61			
	Dealing with strong NZD	0.57			
Knowledge and experience	Competing with NZ firms overseas	0.54	0.75	1.369	5.67
	Knowing business practices	0.74			
	Handling export documentation	0.73			
	Lack of overseas marketing experience	0.64			
Regulatory environment	Locating distributors	0.57	0.71	1.266	5.39
	Foreign tariff barriers	0.65			
	Foreign non-tariff barriers	0.57			
	Foreign government restrictions and regulations	0.52			

Table II.
Export barrier scale
and constructs

an individual factor explaining 28.90 percent of the variance in the scale. Not only is this variance below the frequently used cut-off of 50 percent (Harman, 1976), it also suggests our measurement is not susceptible to CMV.

The Appendix summarizes all the independent and dependent variables used in this study. Export performance was measured by the indicants ESR, EI and EIG. However, the use of ESR as raw number has been criticized because this measure is decidedly

scale-dependent. For this study we adopted “ESR per employee” to eliminate scale dependency while giving a more informative dual picture of performance and productivity (Ruane and Sutherland, 2005). Overall our research design mirrors previous work (Dean *et al.*, 2000; Gertner *et al.*, 2006) in that we examine the explanatory power of multiple predictors across different measures of export performance. A fundamental precondition to a reliable multiple regression analysis is testing for collinearity among independent measures. We ran collinearity tests using the variance inflation factors (VIF) for all (20) independent variables in this analysis. With respect to all 380 possible combinations, multi-collinearity was less than the commonly used stringent cut-off of a VIF score of (<3). Thus collinearity should not undermine the sturdiness of our results. Additionally, since 11 firms declined to divulge all the relevant performance data, our subsequent multiple regression analysis used a sample size of ($n = 118$). To establish the potential of any bias we compared the export profiles and firm demographics of these 11 firms against the rest of the sample. A “difference of means” *t*-test did not reveal any differences between these firms and the rest of the sample.

Results and discussion

Table III presents the multiple regression analysis results in the form of nine separate models based on three factors and three measures. Regarding firm factors, there was strong support for *H1c*, *H1e* and *H1f*. Thus the nature of the product and the level of export experience have a positive effect on export performance while age of the firm negatively impacts performance. *H1c* was supported with respect to all three measures while support for *H1e* and *H1f* was confined to two measures, EI and EIG. Although firm size (operationalized as sales turnover) had no effect on export performance across all three measures, we found some support ($p < 0.10$) for *H1d* when “number of employees” was used as a proxy of size. However, *H1a* and *H1b* are not supported. Thus geographic location and industrial classification were not found to have an effect on export performance. This result was consistent across all three measures of performance. Overall, two of the firm factor models are significant as measured by the *f*-statistic ($p < 0.05$), and at best, firm factors explain 21.9 percent (R^2 , Model 3) of the variability in export performance (EIG).

For strategic factors, all but one (*H2a*) of the hypothesized relationships were substantiated by the analysis. Order continuity, diversified export destinations, and proactive approaches to both exploitation and exploration have an effect on export performance. Support for *H2c* was found across all three measures while *H2b* and *H2e* were supported with reference to both ESR and EIG. Support for *H2d* was confused by some unanticipated negative relationships that, if significant, would suggest proactive exploitation can yield negative benefits for export performance. Overall, two of the three models on strategic factors (Models 5 and 6) have a significant *f*-statistic ($p < 0.001$) with strategic factors accounting for between 24.6 and 26.7 percent of the variability in export performance.

Regarding export barriers, we found support for *H3b*, *H3c*, *H3e*, *H3f*, *H3g* and *H3h*. Hence financial readiness, market mix adaptation, resource mobilization and knowledge and experience have a positive effect on export performance. Conversely, procedural factors and regulatory obstacles have a negative effect on export performance. Only one hypothesis (*H3h* – regulatory obstacles) was supported across all three measures. With regard to *H3b*, *H3e* and *H3g* support was found with respect to ESR and EIG. Support for *H3c* and *H3f* was confined to a single measure, EI and ESR, respectively. However, *H3a* and *H3d* were not supported by this analysis.

Dependent variable(s) Independent variable(s)	Export sales revenue			Export intensity			Export Intensity Growth			
	F	Sig. F	β	t	Sig. t	F	Sig. F	β	t	Sig. t
<i>SCP and RBV (firm factors)</i>	1.903	0.076****				4.443	0.000****			
Location (H1a)			0.115	1.256	0.212			0.073	0.853	0.395
Industry classification (H1b)			-0.602	-0.655	0.514			-0.010	-0.118	0.906
Nature of product (H1c)			0.232	2.450	0.016*			0.217	2.456	0.016*
Employees (H1d)			0.140	1.391	0.167			0.183	1.946	0.054****
Sales turnover (H1e)			0.086	0.901	0.370			0.110	1.239	0.218
Age (H1e)			-0.122	-0.821	0.413			-0.587	-4.241	0.000****
Export experience (H1f)			-0.076	-0.508	0.612			0.435	3.129	0.002**
R	0.327					0.468				
R ²	0.107					0.219				
<i>Rational choice (strategic factors)</i>										
Product line (H2a)	1.126	0.351				7.305	0.000****			
Order continuity (H2b)			0.019	0.204	0.838			-0.134	-1.615	0.109
Destinations (H2c)			0.032	0.326	0.745			0.378	4.370	0.000****
Exploitation (H2d)			0.208	2.155	0.033*			0.208	2.411	0.018*
Exploration (H2e)			0.012	0.123	0.902			-0.122	-1.436	0.154
R	0.219					0.496		0.173	2.035	0.044*
R ²	0.048					0.246				
<i>Perceptual view (export barriers)</i>										
Perception of attractiveness (H3a)	1.382	0.212				6.338	0.000****			
Financial readiness (H3b)			0.021	0.232	0.817			-0.008	-0.107	0.915
Market mix adaptation (H3c)			0.059	0.651	0.516			0.146	1.848	0.067****
			0.060	0.663	0.509			0.095	1.194	0.235

(continued)

Table III.
Linear regression analysis

Table III.

Dependent variable(s) Independent variable(s)	Export sales revenue			Export intensity			Export Intensity Growth			
	F	Sig. F	t	β	Sig. F	t	β	Sig. F	t	
Managerial inadequacies (H3d)			1.100	0.100	0.035	0.455	0.096	0.035	1.214	0.227
Resource mobilization (H3e)			1.042	0.095	0.164	2.134	0.199	0.035*	2.515	0.013*
Procedural factors (H3f)			-1.794	-0.163	-0.020	-0.258	-0.023	0.797	-0.293	0.770
Knowledge and experience (H3g)			-1.005	-0.092	0.169	2.212	0.227	0.029*	2.877	0.005**
Regulatory environment (H3h)			-2.014	-0.184	-0.493	-6.439	-0.427	0.000***	-5.406	0.000***
R	0.302				0.598			0.562		
R ²	0.091				0.357			0.316		

Notes: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; **** $p < 0.10$

Thus market attractiveness and managerial inadequacies do not affect export performance. Overall two of three models are significant ($p < 0.001$) and export barriers explain as much as 35.7 percent (R^2 , Model 8) of the variability in export performance.

It is noteworthy that different combinations of independent and dependent variables lead to dissimilar outcomes. Table IV shows the changing explanatory power of predictors and the efficacy of the measures and variables. Regarding dependent variables, EI carries the highest efficacy score and 60 percent (12 of 20) of the hypothesized relationships are supported when EI is used as the indicant of export performance. More importantly, the factors identified in this study account for 56.8 percent (efficacy as R^2) of the variability in EI, and this relationship is statistically significant ($p < 0.001$). EIG has the second highest score with this measure providing support for 55 percent (11 of 20) of the hypothesized relationships. Furthermore, the combination of predictors captures 54.9 percent (efficacy as R^2) of the variability in EIG and this relationship is also statistically significant ($p < 0.001$). ESR has the lowest efficacy scores and only 20 percent (four of 20) of the hypothesized relationships have been substantiated. Additionally, the group of explanatory variables employed in this study (R^2 Efficacy = 22.2 percent) is not a statistically significant predictor of ESR. Although this ranking is at odds with (Dean *et al.*, 2000; Francis and Collins-Dodd, 2000), the superiority of EI over alternative measures of export

Driver	Measure			Efficacy (%)
<i>SCP and RBV (firm factors)</i>	ESR	EI	EIG	
Location	No	No	No	
Industry classification	No	No	No	
Nature of product	Yes ^a	Yes ^b	Yes ^b	
Number of employees	No	No	Yes ^b	
Sales turnover	No	No	No	
Age of firm	No	Yes ^b	Yes ^b	
Export experience	No	Yes ^b	Yes ^b	33
<i>Rational choice (strategic factors)</i>				
Number of products	No	No	No	
Number of export transactions	No	Yes ^b	Yes ^b	
Number of export destinations	Yes ^a	Yes ^b	Yes ^b	
Exploitation (current market expansion)	No	Yes ^b	No	
Exploration (new market development)	No	Yes ^b	Yes ^b	53
<i>Perceptual view (export barriers)</i>				
Perception of market attractiveness	No	No	No	
Financial readiness	No	Yes ^b	Yes ^b	
Market mix adaptation	No	Yes ^b	No	
Managerial inadequacies	No	No	No	
Resource mobilization	No	Yes ^b	Yes ^b	
Procedural factors	Yes ^a	No	No	
Knowledge and experience	No	Yes ^b	Yes ^b	
Regulatory environment	Yes ^a	Yes ^b	Yes ^b	46
<i>Measure of efficacy (R^2)</i>	0.222	0.568	0.549	
<i>Measure of efficacy (%)</i>	20	60	55	

Notes: ^aThe relationship between independent and dependent variable is statistically significant but the overall model is not; ^bthe relationship between independent and dependent variable, as well as the overall model, are statistically significant

Table IV.
Efficacy of independent
and dependent variables

performance has also been noted in other studies (e.g. Cooper and Kleinschmidt, 1985; Gertner *et al.*, 2006).

Focussing specifically on the predictors of export performance, strategic factors (embodying RC) have the highest efficacy and 53 percent (eight of 15) of the hypothesized relationships are corroborated. Next in line are export barriers with an efficacy score of 46 percent indicating that (11 of 24) of the proposed relationships have been substantiated by the subsequent analysis. Firm factors (representing a combination of SCP and RBV variables) have the lowest efficacy score and only one-third (seven of 21) relationships are supported by the analysis. The subsequent discussion focusses on the explanatory power of the variables underpinning these hypothesized relationships.

With respect to firm factors, nature of product, firm size, age and export experience all had a substantial impact on export performance. Size of the firm (operationalized as number of employees) has a positive effect on performance and this supports earlier studies (e.g. Tookey, 1964). This is also consistent with Dhanaraj and Beamish's (2003) empirical work in which the authors demonstrate that size impacts technological intensity and degree of internationalization, and ultimately export performance. However, size had no influential effect when operationalized as sales turnover. The lack of support for the sales turnover variable was also noted in other studies including Wolff and Pett (2000). Our results also add to the growing list of research (see Cooper and Kleinschmidt, 1985; Kaynak and Kuan, 1993) that has noted inconsistency in the influence of firm size, depending on the variable used as a size proxy. With respect to firm age, our results suggest and support the existence of a negative effect on export performance. Not only has this hypothesis been well-supported in early research (see, Czinkota and Ursic, 1991; Lee and Brasch, 1978), the results appear to coincide with the so-called negative effects of long gestation and domestic orientation. While age may have a detrimental effect on performance, experience has a substantial positive effect. Studies highlighting the positive effect of experience on export performance include (Cavusgil and Zou, 1994; Eusebio *et al.*, 2007; Francis and Collins-Dodd, 2000). Our results also show that the nature of the product has an effect on export performance. In this regard our results are consistent with Christensen *et al.* (1987) and Julian and O'Cass (2004) who highlighted how product differences impact export performance.

Geographic location and industrial classification were not found to have an effect on performance. Perhaps location is vital only where different locales constitute different economies, operating environments or shipping constraints. Further, although Couto *et al.* (2006) highlighted performance differences across industrial groupings, our findings did not corroborate this. There are two plausible explanations; First, the industrial categories in our study appear more homogenous than the diverse groups Couto *et al.* (2006) examined. Second, the market dynamics on which our hypothesis was based (for instance Sakakibara and Porter, 2001 examined Japanese automotive industry), are not generalizable to our study's specific context. Overall firm factors embodied low explanatory power particularly with reference to ESR where the model was significant only at the ($p < 0.10$) level. Thus, overall our results are consistent with Gertner *et al.* (2006) and Rundh (2007) who concluded that firm factors carried limited explanatory power in understanding antecedents and consequences of firm internationalization. Regarding firm factors, our findings generally support the RBV of the export venture in that three of the four resource-based variables had an effect on export performance. Conversely only one (nature of product) of the SCP related variables, was supported by this study.

This study illustrates the importance of strategic factors in stimulating export performance. For instance continuous export transactions have a positive effect on performance. The ability to generate a constant stream of business alludes to the superiority of customer retention capabilities, the lifeblood of any marketing or sales-related venture. Thus our results are analogous to Dean *et al.* (2000) and Gertner *et al.* (2006) and also corroborate Chetty (2003) who insinuates that in the short-term, frequent transactions inflate complexity related costs, but may lead to better performance long-term. Having multiple (diversified) export destinations also has a positive effect on performance. This proposition is also strongly supported in the literature (e.g. Cooper and Kleinschmidt, 1985; Gertner *et al.*, 2006; Hirsch and Lev, 1971; McNaughton, 2003), and also fits within the framework of Yeoh's (2004) thesis, documenting the learning benefits of market diversification. Indeed, firms that combine multiple (continuous) transactions and diversified export destinations, are typically high performing and can be considered market leaders in their respective industries and sectors (Chetty and Campbell-Hunt, 2003). However, robust multi-product export portfolios had no positive effect on performance. These findings are incongruent with studies conducted elsewhere (e.g. Christensen *et al.*, 1987; Kaynak and Kuan, 1993). This could be explained by the relatively narrow product focus of many New Zealand exporters.

Proactive approaches to new market exploration have a positive impact on performance. The importance of proactiveness to firm internationalization is a recurring theme in export marketing literature. Indeed, proactive behavior lies at the very core of successful entrepreneurial marketing. However, our results also suggest a reactive approach to current market exploitation has a positive effect on export performance. This inconsistency speaks to the need to revisit the dichotomous view on export orientation particularly because it is feasible for firms to incorporate strategic direction while remaining flexible to market shifts and thus use both proactive and reactive approaches to order generation. Thus our results shift the export sales generation discussion from the contemporary proactive/reactive dimension toward Katsikea and Skarmeas' (2003) notion of adaptive selling which emphasizes flexibility, customization and experimenting with different tactics to selling. With the exception of number of products, all of the individual hypothesized effects of various strategic variables on export performance are supported by this analysis. This study is compatible with the contention that export performance is strategy dependent (Salavou and Halikias, 2009; Shamsuddoha and Ali, 2006; Sousa and Lengler, 2009). Thus export performance can be construed as a matter of RC *vis-à-vis* the various strategic initiatives the venture may elect to pursue.

We found support for the hypothesized effects of multiple export barriers including financial readiness, market mix adaptation, resource mobilization, procedural challenges, knowledge and experience and regulatory factors. Regarding financial readiness, our findings are consistent with Gabrielsson *et al.* (2004) who describe the indispensable role export financial planning plays to international success. Our results also show that adapting a market mix has a positive effect on export performance. This proposition is widely supported in the literature and is consistent with Cavusgil and Zou (1994), Julian and Ahmed (2005) and Mavrogiannis *et al.* (2008). We also found support that resource mobilization positively affects performance and this lends anecdotal support to the importance of pre-export planning. Thus, both financial and capacity-related physical resources are vital to export performance. The hypothesized negative effect of procedural challenges was also supported by this analysis. Our results corroborate Altintas *et al.* (2007) who illustrate that procedural barriers

have a significant negative effect on export performance. Conversely, knowledge and experience had a positive effect because successful onward internationalization is founded on knowledge and experience “soft” infrastructure (Sy-Changco *et al.*, 2005). The hypothesized negative effect of regulatory factors on export performance was also supported by this study. Thus our results are consistent with Köksal and Kettaneh (2011) and Mavrogiannis *et al.* (2008) who highlighted the negative effect trade-related barriers and restrictions impose on export performance. The role of trade-related constraints to the export behavior of an internationalizing firm is well-documented in the literature (e.g. Jensen and Davis, 1998; Korneliussen and Blassius, 2008) and these regulatory factors present actual and not perceived barriers to profitable export operations. Overall our findings suggest export performance can be understood through the theoretical lens of perceived export barriers.

However, perception of export market attractiveness and managerial inadequacies were not found to impact performance. Regarding export market attractiveness our results mirror Julian and Ahmed (2005) who found no measurable relationship between this predictor and export performance. However, our results are inconsistent with Mavrogiannis *et al.* (2008) probably due to fundamental differences embodied in the market attractiveness construct. We also found no support for the proposition that managerial inadequacies have a negative effect on export performance. Our results contradict Julian and Ahmed (2005), and also appear to absolve managers of the credit or blame with regard to outcomes of export operations.

Overall, not only does this study support past New Zealand research (e.g. Hoang, 1998; Dean *et al.*, 2000), our results are consistent with those from other smaller open economies including, Greece (Mavrogiannis *et al.*, 2008), Austria, (Stöttinger and Holzmüller, 2001), Spain and Italy (Eusebio *et al.*, 2007). For instance, Mavrogiannis *et al.* (2008) found out that just like New Zealand exporters, the performance of Greek exporters could be explained by venture capabilities, adaptation of export market mix and perception of export development challenges. Similarly, our results are also compatible with Eusebio *et al.* (2007) whose findings (in both Italy and Spain) highlight that superior export performance emanates from export marketing experience and export strategy particularly geographic dispersion of sales across multiple export markets. Also, these results are consistent with those from other studies (e.g. Julian and Ahmed, 2005; Gertner *et al.*, 2006) using samples of manufacturing firms situated in agro-based or commodity based economies like New Zealand. On a broader scale our results validate large portions of the frequently cited export development models including Aaby and Slater (1989), Cavusgil and Zou (1994) and Morgan *et al.* (2004).

Conclusions and implications

The foremost goal of this research was to condense the myriad antecedents of export performance and test the relative explanatory power espoused by each of the four underlying theoretical perspectives. To improve the robustness of the comparisons across theoretical templates, we purposely employed a multiple measures approach using three of the most commonly used indicants of export performance, ESR, EI and EIG. Our research highlights export performance is tied more closely to the PV and RC as opposed to resource-based or SCP market-wide factors. This study carries fundamental implications for export marketing academics, export managers and also public policy entrusted with the task of stimulating SME export activity.

Specifically, deliberate rational strategic choices drive or explain EI and EIG. Additionally our efficacy scores indicate close to half the (RC-based) hypotheses were

corroborated by the empirical analysis. Our study suggests that SMEs can make the RC to assume market leadership positions by adopting specific strategic postures to gain a competitive edge. Several strategic postures are potentially useful including continuous order flow and market diversification. These firms also show an inclination to combine some measure of ambidexterity when it comes to balancing current market exploitation and new market exploration. Furthermore, the performance advantages associated with the RC of diversification and proactive orientation appear more influential than the negative effects of multinationality. While this conclusion is compatible with past studies highlighting the export strategy and export performance link (e.g. Brouthers and Nakos, 2005; McNaughton, 2003; Sousa and Lengler, 2009.), our contribution regarding PV is unique and potentially enlightening. As matter of fact, support for export barriers as a predictor of export performance was as widespread and as strong as for RC. For instance, nearly half of individual hypotheses were substantiated with support spread across EI and EIG measures. In linking the perception-based export barrier construct with the export performance discourse, this study illustrates the existence of a behavioral dimension to the export performance dialogue. Thus the underlying perceptual dimension which manifests itself in the way decision makers, assimilate, interpret and respond to the export development challenges, can drive export performance. More specifically, the PV implies that even when influential, certain barriers may not hinder performance. It appears that firms can pre-empt some barriers by engaging in the requisite resource mobilization and pre-export planning. Conversely firm factors based theoretical models (RBV and SCP) carry scant explanatory power in the prediction of export performance. For instance, no support was found for "location" and "industrial classification" (SCP variables) and also "sales turnover" (RBV variable). Thus this study suggests that some differential advantages commonly associated with scale, location and industrial dissimilarities may not be as fundamental to export success as portrayed in past research. Indeed, high levels of EI and EIG have been noted for both the micro and also the larger SMEs. However, firm variables such as "number of employees" and "export experience," remain vital to export performance. Thus while resources are evidently not as essential to export performance as strategic and managerial factors, the anecdote that internationalizing SMEs can claim "success in spite of resources," is probably exaggerated.

Finally, perhaps the single most important contribution of this study pertains to the definition of an internationalizing SME. As highlighted in the introduction, SMEs have been described as artefacts of the operating environment, combinations of resources, independent rational entities or the personification of managerial attitudes, capabilities and perception. Our study concludes that underlying dynamics of internationalizing SMEs are encapsulated in the strategic choices made pre-and post-entry as well as managerial mind-sets at the center of these strategic choices. Conversely, our results suggest resources and market structures give a smaller view into the undercurrents of firm internationalization. This re-definition of an SME carries additional implications for various stakeholders. For export researchers, our study implies the need to re-focus on managerial perception as the quintessence of the vast majority of influences driving internationalization outcomes. Additionally, RC can supersede the generic advantages or disadvantages that may emanate from certain SCP or RBV factors. For entrepreneurial SME exporters, these results are encouraging because they suggest export performance is largely independent of firm size, location and industry. Thus successful exporters are distinguished not by their scale, the region from where

they operate or their industry, but by how the managers channel their cognitive capabilities toward comprehending and responding to internationalization challenges and crafting or selecting winning strategies. Finally, for policy makers this study almost certainly alters the traditional view on export stimulation. Traditionally, policy makers have focussed on, among other things: first, encouraging firms in certain industries to partake in exporting; second, giving incentives for firms to locate operations in specific regions; and third, encouraging other stakeholders (especially financial institutions) to provide assistance to allow SMEs to ramp-up scale. Our study expressly questions the usefulness of these approaches while suggesting the need to focus less on the institutional factors and more on empowering managers regarding aspects such as opportunity discovery and exploitation.

While the primary focus of the research was examining the explanatory power of theoretically driven antecedents, this study also adds to the literature on export performance measurement. Specifically, EI remains the most reliable indicant followed closely by EIG and a distant ESR. Superiority of EI emanates from the fact that it is a fairly standardized indicant whose efficacy has been established over an extensive period of time and in various settings. Additionally EI is non-scale dependent. However, there are some setbacks associated with the measure. As underlined in the literature, research has assumed that an exporter's objective function is maximization of export intensity which is a misrepresentation of the convolutions of export development. Even more importantly, EI cannot be used in some comparative studies (e.g. comparing the export performance of conventional exporters to international new ventures) because EI is part of the separating criteria. On the other hand the shortcomings of EIG and ESR are more apparent. As is the case with EI the assumption that high or increasing export intensity captures superior export performance is not valid in all instances. Further EIG may be reflective of general business sentiment and thus vulnerable to business cycles and not firm level dynamics which export performance studies seek to expose. Furthermore, even after removing the scale dependency inherent in ESR, this measure still embodied limited efficacy.

Limitations and future research

Caution should be exercised in generalizing our findings beyond this study's context. Our study took a snapshot look at a relatively small sample of manufacturing exporters in a small export driven economy. Thus the characteristics that make New Zealand an ideal laboratory to study smaller exporters (small domestic market and high participation in export) could also partly explain why EI and EIG are synonymous with firm performance. Further, the use of EFA in combination with linear analysis of relationships, probably robs the study of the robustness that a more rigorous analytical approach may attain. Thus, future research can revisit these aspects and also test our propositions in other settings. It may also be informative to examine how export performance evolves through time by adopting longitudinal or multiple cross-sectional research. For instance, how consistent is the explanatory power of each theoretical template at different points in time or in different settings?

Beyond the issues in the preceding discussion, another way to extend this research is to explicate on export barrier/export performance relationship. Presently there is no body of knowledge that draws on recognizable theoretical frameworks to propose and test the export barrier/export performance relationship. This is primarily because in spite of four decades worth of export barrier research there is no study that elaborates

on the actual effect of export barriers. For instance the notion that export barriers are prohibitive, inhibitive or important does not arise from a theoretical foundation but from how anchors and poles on export barrier scales are designed. In this sphere there is room for new research that unambiguously documents whether barriers are manageable, can be overcome by export assistance or can trigger specific strategies. This new knowledge has the potential to enrich the export barrier/export performance dialogue while contributing to a wider audience on small firm internationalization.

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Factor(s)	Independent variable	Measurement/scale
Firm	Location (11 regions, dummy variables)	Categorical
	Industrial classification (11 classes, dummy variables)	Categorical
	Nature of product (consumer/industrial)	Dichotomous
	Employees (number)	Continuous
	Sales turnover (\$)	Continuous
	Age (years)	Continuous
Strategic	Export experience (years)	Continuous
	Product line(s) (number)	Continuous
	Order continuity (frequency/number)	Continuous
	Export destinations (number/name)	Continuous/nominal
	Exploitation (proactive/reactive)	Dichotomous
Barriers	Exploration (proactive/reactive)	Dichotomous
	Perception of market attractiveness	EFA construct
	Financial readiness	EFA construct
	Market mix adaptation	EFA construct
	Managerial considerations	EFA construct
	Resource mobilization	EFA construct
	Procedural factors	EFA construct
	Knowledge and expertise	EFA construct
	Regulatory environment	EFA construct
	<i>Dependent variable</i>	
ESR	Export sales revenue (\$) (export \$/number of employees)	Continuous
EI	Export intensity (export \$/total sales \$)	Continuous
EIG	Export intensity growth (over 3-year period)	Continuous

Table AI.
Summary of variables
used in the study

About the authors

Dr Eldrede Tinashe Kahiya's research interests revolve around antecedents, processes and outcomes of SME internationalization. He lectures Marketing Planning and Control and International Marketing in the Applied Business Management program at the Christchurch Polytechnic Institute of Technology, in New Zealand. Dr Eldrede Tinashe Kahiya is the corresponding author and can be contacted at: Eldrede.Kahiya@cpit.ac.nz

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