

# DETERMINANTS AND MEASURES OF EXPORT PERFORMANCE – COMPREHENSIVE LITERATURE REVIEW

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## Abstract

*As one of the key indicators of the firm's ability to leverage successfully its resources and capabilities in the international context, export performance has been one of the most extensively studied phenomena. A plethora of studies have been conducted pertaining to provide better understanding of the factors (firm- or environment-specific) and behaviours (e.g., export strategy) that make exporting a successful venture. Following a comprehensive literature review undertaking in this study the current state of the export performance literature could be summarised as (i) methodologically fragmented in that there is a variety of analytical and methodological approaches, (ii) conceptually diverse, a large number of determinants have been identified as having direct or indirect influence on the firm's export performance, and a large number of indicators have been used to conceptualise and operationalise the export performance measures, and (iii) inconclusive, the studies have produced inconsistent results of the impact of different determinants on export performance.*

**Keywords:** export performance, determinants, measures

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## Introduction

Export performance of a firm reflects a firm-specific behaviour in leveraging its resources and capabilities in an international context at a given point of time. Firm export performance is regarded as one of the key indicators of the success of a firm's export operations, and as such, it has been an extensively studied phenomenon. Numerous studies have been conducted pertaining to provide better understanding of the factors (firm- or environment-specific) and behaviours (e.g., export strategy) that make exporting a successful venture.

The current state of the export performance literature could be summarised as (i) methodologically fragmented in that there is a variety of analytical and methodological approaches, (ii) conceptually diverse, a large number of determinants have been identified as having direct or indirect influence on the firm's export performance, and a large number of indicators have been used to conceptualise and operationalise the export performance measures, and (iii) inconclusive, the studies have produced inconsistent results of the impact of different determinants on export performance.

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Two main constructs have been of particular interest for academic researchers: export performance determinants and export performance measures.

## Determinants of export performance

Numerous internal (firm-specific) and external (environment-specific) factors have been studied in the exporting literature, as potential determinants of the export outcomes with inconsistent and sometimes contradictory findings of their positive, negative or neutral relationship with export performance.

**Table 1.** Literature review of determinants of export performance: A review of the research in the literature post 1988<sup>2</sup>

List of variables	References
<p><b>Internal (INT)</b>  <i>INT - Management characteristics and perceptions:</i></p> <ul style="list-style-type: none"> <li>• Export commitment and support</li> <li>• International experience</li> <li>• International orientation</li> <li>• Export motivation, proactive</li> <li>• Perception of export advantages</li> <li>• Age</li> <li>• Education</li> </ul> <p><i>INT – Organisational capabilities: Advanced technology and Quality of product/service</i></p> <p><i>INT – Organisational capabilities: Export strategy</i></p> <ul style="list-style-type: none"> <li>• General export strategy</li> <li>• Export planning</li> <li>• Export organisation</li> <li>• Proactiveness/reactiveness</li> <li>• Market expansion</li> <li>• Service strategy</li> <li>• Risk taking</li> <li>• Control</li> <li>• Process</li> </ul>	<p>Aaby and Slater, 1989; Alvarez, 2004; Beamish et al., 1999; Brouthers and Nakos, 2005; Cadogan et al., 2005; Cavusgil and Zou, 1994; Cavusgil, 1984; Cacic et al., 2002; Contractor et al., 2005; Czinkota and Ursic 1991; Da Rocha, Christensen, and Da Cunha 1990; Dean et al., 2000; Dichtl, Köglmayr, and Müller 1990; Gençtürk and Kotabe, 2001; Holzmüller and Kasper 1990; Ibeh and Wheeler, 2005; Ibeh and Young, 2001; Ibeh, 2003; Jones, 1999; Katsikeas et al., 2000; Lages and Montgomery, 2005; O’Cass and Julian, 2003; Oviatt and McDougall, 1994; Reid, 1983; Roth, 1995; Stöttinger and Holzmüller, 2001; Styles and Ambler, 2000; White et al., 1998; Zou and Stan, 1998.</p> <p>Alvarez, 2004; Balabanis and Katsikea, 2003; Cavusgil, Zou, and Naidu, 1993; Chetty and Hamilton, 1993; Contractor et al., 2005; Haahti et al., 2005; Madsen 1989; O’Cass and Julian, 2003; Piercy et al., 1998; Prasad et al., 2001; Robertson and Chetty, 2000; Rodriguez and Rodriguez, 2005; Shoham et al., 2002; Styles and Ambler, 1994; Thirkell and Dau, 1998; Yeoh, 2004.</p> <p>Aaby and Slater, 1989; Balabanis and Katsikea, 2003; Baldauf et al., 2000; Brouthers and Nakos, 2005; Chung, 2003; Contractor et al., 2005; Dean et al., 2000; Deng et al., 2003; Dhanaraj and Beamish, 2003; Francis and Collins-Dodd, 2000; Haahti et al., 2005; Hoang, 1998; Ibeh and Wheeler, 2005; Julien and Ramangalahy, 2003; Lado et al., 2004; Ling-yee, 2004; Ling-yee and Ogunmokun, 2001a; Morgan et al., 2004; Piercy et al., 1998; Robertson and Chetty, 2000; Shoham, 1999; Shoham et al., 2002; Solberg, 2002; White et al., 1998; Zou and Stan, 1998.</p>

<sup>2</sup> For a comprehensive review of literature on determinants of export performance prior to 1988 see Madsen (1987) and Aaby and Slater (1989).

List of variables	References
<p><i>INT – Organisational capabilities: Marketing mix</i></p> <ul style="list-style-type: none"> <li>• Product strategy</li> <li>• Price strategy</li> <li>• Promotion strategy</li> <li>• Distribution strategy</li> </ul>	<p>Albaum and Tse, 2001; Amine and Cavusgil 1986; Beamish et al. 1993; Brouthers and Nakos, 2005; Brouthers and Xu, 2002; Cavusgil and Zou 1994; Chung, 2003; Dominguez and Sequeira, 1993; Fraser and Hite 1990; Gençtürk and Kotabe, 2001; Hoang, 1998; Lado et al., 2004; Lages and Montgomery, 2005; Lee and Griffith, 2004; Ling-yea and Ogunmokun, 2001b; Ling-yea and Ogunmokun, 2001a; Louter, Ouwerkerk, and Bakker, 1991; Madsen, 1989; Morgan et al., 2004; Myers, 1999; Namiki, 1994; O’Cass and Julian, 2003; Piercy et al., 1998; Robertson and Chetty, 2000; Samiee and Anckar 1998; Shoham et al., 2002; Shoham, 1999; Styles and Ambler, 1994; Thirkell and Dau, 1998; Zou et al., 2003.</p>
<p><i>INT – Knowledge-based factors: Export expertise</i></p> <ul style="list-style-type: none"> <li>• International experience</li> </ul>	<p>Baldauf et al., 2000; Brouthers and Nakos, 2005; Brouthers and Xu, 2002; Contractor et al., 2005; Dean et al., 2000; Deng et al., 2003; Francis and Collins-Dodd, 2000; Hoang, 1998; Lado et al., 2004; Ling-yea, 2004; Ling-yea and Ogunmokun, 2001b; O’Cass and Julian, 2003; Prasad et al., 2001; Solberg, 2002.</p>
<p><i>INT – Knowledge-based factors: Export knowledge</i></p> <ul style="list-style-type: none"> <li>• Market research</li> <li>• Customer information</li> <li>• Market information</li> <li>• Competitor information</li> <li>• Supply chain channels information</li> </ul>	<p>Grant, 1996; Hart and Tzokas, 1999; Kogut and Zander, 1992; Ling-yea, 2004; Morgan et al., 2003; Richey and Myers, 2001; Solberg, 2002; Teece et al., 1997; Yeoh, 2000.</p>
<p><i>INT – Relational factors: Business and Institutional relationships</i></p> <ul style="list-style-type: none"> <li>• Distribution channel relationship</li> <li>• Customer relationship</li> <li>• Supplier relationship</li> <li>• Partners relationship</li> <li>• Membership in formal and informal business networks</li> <li>• Government and other institutional relationships</li> </ul>	<p>Cadogan et al., 2005; Coviello and Munro, 1997; Crick and Jones, 2000; Ibeh and Wheeler, 2005; Ling-yea and Ogunmokun, 2001b; Ray et al., 2004; Styles and Ambler, 2000; Styles et al., 2008; Zou and Stan, 1998.</p>

<p><i>INT – Firm characteristic</i></p> <ul style="list-style-type: none"> <li>• Firm size</li> <li>• Degree of internationalisation</li> <li>• Firm age</li> <li>• Industrial sector/product type</li> <li>• Organisational culture</li> <li>• Financial resources</li> <li>• Ownership structure</li> </ul>	<p>Akyol and Akehurst, 2003; Albaum and Tse, 2001; Alvarez, 2004; Balabanis and Katsikea, 2003; Baldauf et al., 2000; Beamish et al., 1999; Beamish et al. 1993; Brouthers and Nakos, 2005; Brouthers and Xu, 2002; Cadogan et al., 2002a; Cadogan et al., 2002b; Cadogan et al., 2003; Cadogan et al., 2005; Chung, 2003; Cicic et al., 2002; Contractor et al., 2005; Culpán 1989; Dean et al., 2000; Deng et al., 2003; Dhanaraj and Beamish, 2003; Francis and Collins-Dodd, 2000; Francis and Collins-Dodd, 2004; Gençtürk and Kotabe, 2001; Haahti et al., 2005; Hart and Tzokas, 1999; Hoang, 1998; Julien and Ramangalahy, 2003; Lado et al., 2004; Lee, 1998; Lee and Griffith, 2004; Ling-yee, 2004; Ling-yee and Ogunmokun, 2001a; Ling-yee and Ogunmokun, 2001b; Moen, 1999; Morgan et al., 2004; Myers, 1999; O’Cass and Julian, 2003; Piercy et al., 1998; Prasad et al., 2001; Richey and Myers, 2001; Robertson and Chetty, 2000; Rose and Shoham, 2002; Shoham, 1999; Shoham et al., 2002; Solberg, 2002; Stöttinger and Holzmüller, 2001; Styles and Ambler, 2000; Thirkell and Dau, 1998; White et al., 1998; Wolff and Pett, 2000; Yeoh, 2000; Yeoh, 2004; Zou et al., 2003.</p>
<p><b>External (EXT)</b></p> <p><i>EXT – Export market characteristics</i></p> <ul style="list-style-type: none"> <li>• Legal and political</li> <li>• Cultural similarity</li> <li>• Market competitiveness</li> <li>• Environmental hostility/turbulence</li> <li>• Economic similarity</li> <li>• Channel accessibility</li> <li>• Customer exposure</li> </ul> <p><i>EXT – Domestic market characteristics</i></p> <ul style="list-style-type: none"> <li>• Domestic market conditions</li> <li>• Export assistance</li> <li>• Environmental hostility</li> </ul>	<p>Balabanis and Katsikea, 2003; Baldauf et al., 2000; Brouthers and Xu, 2002; Cadogan et al., 2002a; Cadogan et al., 2002b; Cadogan et al., 2003; Cadogan et al., 2005; Cicic et al., 2002; Dean et al., 2000; Lado et al., 2004; Lages and Montgomery, 2005; Lee, 1998; Lee and Griffith, 2004; Morgan et al., 2004; O’Cass and Julian, 2003; Robertson and Chetty, 2000; Rose and Shoham, 2002; White et al., 1998.</p> <p>Alvarez, 2004; Francis and Collins-Dodd, 2004; Gençtürk and Kotabe, 2001; Lages and Montgomery, 2005; Robertson and Chetty, 2000; Stöttinger and Holzmüller, 2001.</p>

Table 1 provides a detailed overview of export performance determinants along with the relevant studies.

Since the pioneering work of Tookey (1964) who first attempted to identify export success factors, the interrelationship among export performance determinants and export outcomes has been the subject of analysis in over a hundred empirical studies (Katsikeas, Leonidou and Morgan, 2000). In an extensive literature review, Gemunden (1991) counted over 700 variables that were advanced and analysed as determinants of export performance.

In general, the export performance determinants are viewed as internal, firm-specific influences and external, environmental influences (Madsen, 1987; Aaby and Slater, 1989; Chetty and Hamilton, 1993; Zou and Stan, 1998; Katsikeas et al, 2000; Sousa et al., 2008). The internal/external divide corresponds to the two theoretical approaches underpinning most of the empirical research of export performance – the resource based view of the firm (RBV) and the contingency theory. Studies examining the internal factors are grounded in the RBV approach, and assume that the firm’s export performance is under the control of the firm and its management. The resource-based view (RBV) proponents suggest that exploitation of idiosyncratic, immobile strategic resources owned or controlled by a firm are its source of superior performance

(Penrose, 1959; Wernerfelt, 1984). Empirical research over the past 40 years has identified and tested a number of internal influences, often labelled as managerially controllable factors. They can be grouped in four broad groups: firm characteristics, management characteristics, management attitudes and perceptions, and export strategy. The most frequently cited factors as firm-specific determinants in the export performance literature are marketing mix variables, management characteristics, firm specific variables, and export strategy factors.

The importance of the external determinants is supported by the contingency theory, rooted in the structure-conduct-performance framework of industrial organisation (Cavusgil and Zou, 1994). This theory argues that a firm must adapt to the external environment pressures in order to survive and prosper. A superior export performance is a result of a firm's successful strategic response to the external factors (Robertson and Chetty, 2000). The external influences are defined as environment-specific and hence managerially uncontrollable. The external determinants are generally categorised as industry specific and market specific. The industry specific factors refer to the industry's technological intensity and its level of instability. Factors affecting export performance in domestic markets differ from those in the foreign markets. The liability of foreignness increases the cost of doing business abroad due to legal, economic, and cultural differences. Legal and political factors and cultural similarity are factors that are most cited as external determinants of export performance. The effects of the domestic market factors on the export performance are somewhat neglected in the export performance research. The very few studies that have investigated the domestic market characteristics as potential determinants of export performance identified two determinants: export assistance and domestic environmental hostility. A comprehensive list of variables advanced as external determinants of the export performance is provided in Table 1.

## **Measures of export performance**

Attainment of successful export performance is at the heart of the strategic decision-making process for both corporate and public policy decision-makers. For companies, the success of the export performance indicates the extent to which firm's objectives, both economic and non-economic, are achieved in an international context at a given point of time and reflects the suitability of the chosen export strategy in responding successfully to the firm and environmental circumstances. Given that exporting is a strategic choice for a firm, the objectives can vary widely between firms, industries, national contexts and time horizons. Consequently, there is a plethora of export performance indicators used in the exporting literature. For example, Katsikeas, Leonidou and Morgan (2000), in their analysis of 100 export-related articles, identified 42 different performance indicators. More recently Sousa (2004), in his analysis of export performance related articles published between 1998 and 2004, identified 50 different performance indicators. The extensive array of indicators employed in the export performance literature is a reflection of the difficulties in accessing export performance data, as well as the on-going search for consistent and comprehensive measures. This makes the comparison and validation of the findings from different studies very difficult.

An overview of the relevant literature implies that a conceptually sound and reliable export performance measure should fulfil the following criteria: i) it has to be composite and multidimensional, i.e. to include both objective and subjective measures; ii) it has to have a frame of reference, i.e. to be benchmarked against domestic market performance, competitors performance or prior performance; iii) it has to be assessable over time, i.e. expressed in absolute, as well as relative terms; and iv) it has to reflect the firm's strategic goals at the appropriate level (company, SBU, export venture or line of product) and for an appropriate time horizon (short-term or long-term) (Diamantopoulos and Kakkos, 2007). Table 2 represents a classification of the export performance measures following the above criteria.

**Table 2.** Classifications of export performance measures

Criteria	Classification	Criteria met in this study
Type of assessment	<ul style="list-style-type: none"> <li>• Objective</li> <li>• Subjective</li> <li>• Composite</li> </ul>	✓
Type of indicator	<ul style="list-style-type: none"> <li>• Economic/Financial</li> <li>• Non-economic/Non-financial</li> <li>• Composite</li> </ul>	✓
Measure complexity	<ul style="list-style-type: none"> <li>• One-dimensional</li> <li>• Multidimensional</li> </ul>	✓
Frame of reference	<ul style="list-style-type: none"> <li>• Domestic market</li> <li>• Competition</li> <li>• Prior performance</li> </ul>	✓
Time perspective	<ul style="list-style-type: none"> <li>• Static</li> <li>• Dynamic</li> </ul>	✓ ✓
Unit/level of assessment	<ul style="list-style-type: none"> <li>• Company</li> <li>• Strategic business unit</li> <li>• Export venture</li> <li>• Specific product</li> </ul>	✓
Assessment time span	<ul style="list-style-type: none"> <li>• Short-term</li> <li>• Long-term</li> </ul>	✓

The objective/subjective divide refers to the type of values used in the export performance assessment, i.e., objective indicators are mainly based on absolute values (e.g. export sales volume, export profit margin, export market share, etc.) while subjective indicators are based on perceptual values (e.g. the manager's perception of success and satisfaction with export sales).

Measures of export performance are usually categorised in two broad groups: financial/economic and non-financial/non-economic measures. A comprehensive list of economic and non-economic indicators as measures of export performance are outlined in Table 3, alongside the relevant studies.



**Table 3.** Literature review of export performance measures

Measure	References
<p><b>ECONOMIC MEASURES</b></p> <p><i>Sales-related</i></p> <ul style="list-style-type: none"> <li>• Export intensity</li> <li>• Export intensity growth</li> <li>• Export sales efficiency</li> <li>• Export intensity growth compared to competitors</li> <li>• Export sales growth</li> <li>• Export sales growth compared to competitors</li> <li>• Export sales return on investment</li> <li>• Export sales return on investment compared to competitors</li> <li>• Export sales volume</li> <li>• Export sales volume compared to competitors</li> </ul>	<p>Akyol and Akehurst (2003). Axinn, 1988; Axinn, Noordewier, Sinkula (1996); Axinn, Savitt, Sinkula, Thach (1995); Axinn, Thach (1990); Balabanis and Katsikea (2003); Baldauf, Cravens, and Wagner (2000); Beamish, Craig, McLellan (1993); Beamish, Karavis, Goerzen, and Lane (1999); Bodur (1994); Brouthers and Xu (2002); Cadogan, Cui, and Li (2003); Cadogan, Diamantopoulos, and Siguaw (2002); Cadogan, Sundqvist, Salminen, and Puumalainen (2002); Cavusgil, 1984; Chan (1992); Cicic, Patterson, and Shoham (2002); Cooper and Kleinschmidt, 1985; Crick et al., 1994; Culpan (1989); Czinkota and Johanston, 1983; Czinkota, Ursic (1991); Das (1994); Dean, Menguç, and Myers (2000); Dhanaraj and Beamish (2003); Diamantopoulos, Schlegelmilch (1994); Francis and Collins-Dodd (2000); Gençtürk and Kotabe (2001); Gray (1997); Hart and Tzokas (1999); Hoang (1998); Ito, Pucik (1993); Katsikeas et al., 1997; Kaynak, Kuan (1993); Lages and Lages (2004); Lages and Montgomery (2004). Lee (1998); Lee, Yang (1990); Lim, Sharkey, Kim (1996); Ling-yee and Ogunmokun (2001); Louter, Ouwerkerk, Bakker (1991); Madsen, 1989; McGuinness and Little, 1981; Moen (1999); Morgan, Kaleka, and Katsikeas (2004); Morgan and Katsikeas (1998); Munra, Beamish (1987); Myers (1999); Namiki (1989); Namiki (1994); Piercy, Kaleka, and Katsikeas (1998); Prasad, Ramamurthy, and Naidu (2001); Reid (1987); Richey and Myers (2001); Robertson and Chetty (2000); Roper and Love (2002); Rose and Shoham (2002); Samiee, Walters (1990); Schlegelmilch, Ross (1987); Shoham (1998); Shoham (1999); Shoham, Evangelista, and Albaum (2002); Solberg (2002); Spence (2003); Stewart and McAuley (2000); Stöttinger and Holzmüller (2001); Styles (1998); Styles and Ambler (2000); Thirkell and Dau (1998); Tzokas et al. (2000); Wakelin (1998); Walters (1993); Walters, Samiee (1990); Westhead (1995); White, Griffith, and Ryans (1998); Wolff and Pett (2000); Yeoh (2000); Zou, Andrus, Norvell (1997). Zou, Taylor, and Osland (1998);</p>
<p><i>Market-related</i></p> <ul style="list-style-type: none"> <li>• Export market share</li> <li>• Export market share compared to competitors</li> <li>• Export market share growth</li> <li>• Export market share growth compared to competitors</li> <li>• Gaining foothold in the market</li> <li>• Market diversification</li> <li>• Rate of new market entry</li> <li>• Rate of new market entry compared to competitors</li> </ul>	<p>Akyol and Akehurst (2003); Albaum and Tse (2001); Baldauf, Cravens, and Wagner (2000); Brouthers and Xu (2002); Cadogan, Diamantopoulos, and Siguaw (2002); Cadogan, Sundqvist, Salminen, and Puumalainen (2002); Cavusgil and Kirpalani, 1993; Cavusgil and Zou, 1994; Dhanaraj and Beamish (2003); Lages and Lages (2004); Lages and Montgomery (2004). Lee (1998); Moen (1999); Morgan, Kaleka, and Katsikeas (2004); Myers (1999); Piercy, Kaleka, and Katsikeas (1998); Prasad, Ramamurthy, and Naidu (2001); Richey and Myers (2001); Robertson and Chetty (2000); Rose and Shoham (2002); Shoham (1998); Solberg (2002); Thirkell and Dau (1998); White, Griffith, and Ryans (1998); Zou, Taylor, and Osland (1998);</p>

Measure	References
<p><b>NONECONOMIC MEASURES</b></p> <p><i>General</i></p> <ul style="list-style-type: none"> <li>• Export success</li> <li>• How competitors rate firm's export performance</li> <li>• Meeting expectations</li> <li>• Overall export performance</li> <li>• Overall export performance compared to competitors</li> <li>• Strategic export performance</li> </ul>	<p>Akyol and Akehurst (2003); Balabanis and Katsikea (2003); Brouthers and Xu (2002); Cadogan, Diamantopoulos, and Siguaw (2002); Cicic, Patterson, and Shoham (2002); Crick and Jones (2000); Crick et al. (2000); Gençtürk and Kotabe (2001); Katsikeas, Piercy, Ioannidis (1996); Lages and Lages (2004); Lages and Montgomery (2004). Lee (1998); Ling-yee and Ogunmokun (2001); McAuley (1999); McGuinness et al. (1991); Moen (1999); Myers (1999); Naidu, Prasad (1994); O' Cass and Julian (2003); Patterson, Cicic, Shoham (1997); Prasad, Ramamurthy, and Naidu (2001); Raven, McCulloch, Tansuhaj (1994); Robertson and Chetty (2000); Seifert, Ford (1989); Shoham, Evangelista, and Al-baum (2002); Singer, Czinkota (1994); Solberg (2002); Sriram, Manu (1995). Stewart and McAuley (2000); Styles (1998); Styles and Ambler (2000); Thirkell and Dau (1998); White, Griffith, and Ryans (1998); Zou, Taylor, and Osland (1998);</p>
<p><i>Miscellaneous</i></p> <ul style="list-style-type: none"> <li>• Achievement of objectives regarding response to competitive pressures</li> <li>• Building awareness and image overseas</li> <li>• Contribution of exporting to the growth of the firm and to the quality of firm's management</li> <li>• Customer satisfaction</li> <li>• Gaining new technology/ expertise</li> <li>• Product/service quality compared to competitors</li> <li>• Quality of customer relationships compared to competitors</li> <li>• Quality of distributor relationships</li> <li>• Quality of distributor relationships compared to competitors</li> <li>• Reputation of the firm compared to competitors</li> </ul>	<p>Gençtürk and Kotabe (2001); Morgan, Kaleka, and Katsikeas (2004). Myers (1999); Prasad, Ramamurthy, and Naidu (2001); Thirkell and Dau (1998);</p>

The aggregate evidence suggests that the most used financial indicators as measures of export performance are:

- sales-related indicators such as: export sales ratio (e.g., Czinkota and Johanston, 1983; Cavusgil, 1984; Madsen, 1989), export sales growth (e.g., Cooper and Kleinschmidt, 1985; Madsen, 1989), export sales volume and export sales ratio (eg., Axinn, 1988; McGuinness and Little, 1981); and
- profit-related indicators, such as: export profitability, export profitability growth, export profit ratio, and export profit margin (eg., Bilkey, 1982, Madsen, 1989).



Other, less used financial measures are the market share-related indicators, such as: export market share, and export market share growth (Cavusgil and Kirpalani, 1993; Cavusgil and Zou, 1994). These measures are used as means for capturing the strategic outcome of exporting.

Despite the large number of variables employed as measures of export success, several measures appear to be used considerably more than other, such as export intensity (export-to-total sales ratio), export sales growth, export profitability, export market share, satisfaction with overall performance, and perceived export success (Sousa, 2004).

Faced with the difficulties of obtaining financial data from the firms, especially the SMEs, some researchers resort to the use of non-financial/non-economic measures of export performance. This approach advocates the use of perceptual/attitudinal or generic measures of performance, such as: perceived export success, achievement of export objectives, satisfaction with export performance, or strategic export performance (eg. Zou and Stan, 1998; Ibeh and Wheeler, 2005). Other non-financial measures include product-related and market-related indicators and other miscellaneous measures.

Much of the early export performance research has been dominated by single-item measures, either economic or non-economic. Recognising that export success is “multifaceted and cannot be captured by any single performance indicator” (Diamantopoulos, 1998: 3) recent empirical studies have attempted to develop and validate multi-item measures in the form of more complex and multidimensional performance metrics (Zou, Taylor and Osland, 1998; Shoham, 1998; Styles, 1998; Lages and Lages, 2004; Lages, Lages and Lages, 2005).

The following factors have been found to affect the choice of export performance measure:

- Data availability and accessibility
- Firm characteristics (size, export experience)
- Unit/level of assessment
- Time frame of assessment (short-term vs. long-term)
- Strategic objectives
- Position of the assessor in the firm (SBU manager, export manager, financial manager, general manager, etc.)

## **Subjective (perceptual) versus objective (empirical) measures**

The large number of export performance determinants and measures advanced in the academic research, accompanied by inconsistent and sometimes contradictory results, have raised concerns about a potential divergence between academic findings and practitioners' reality (e.g., Madsen, 1998; Lages and Montgomery, 2004; Lages and Lages, 2004; Lages, Lages and Lages, 2005).

A possible reason could be the small number of studies that explicitly consider the managers' views of export performance and its determinants. The majority of exporting studies investigate resources owned or controlled by a firm as internal determinants of the firm's export performance, or examine the environment-specific factors (markets, industry), as external drivers of export success. These studies assess the relationship between the internal and/or external factors with either an objective or subjective export performance measure. Various export performance models have been built to reflect the underlying propositions and then tested by employing some form of statistical analysis. Statistical analysis is used to determine the nature (positive or negative) and the direction (direct or indirect) of the determinant(s)/performance relationship. These are generally considered to be valid and reliable constructs, since they are derived by an objective analytical method.

However, this approach has been criticised for producing results that are not always aligned with the manager's views and perceptions of the firm's export performance and its determinants. This study attempts to investigate whether there is a significant discrepancy between the findings using objective measures and the structural equation modelling technique to test the resource/performance relationship and findings based on the manager's own perception of the importance of specific firm resources for the firm's export performance. Subjective metrics have been shown to be valid in assessing export performance and in determining the manner in which performance is associated with managerial decisions (see Katsikeas, Leonidou, and Morgan, 2000).

## Conclusion

The variety of determinants and measures employed in the export performance studies is a reflection of the complexity of the export performance concept itself. Export targets differ across firms, as well as within the firms, i.e. while all stakeholders in the firm aim for export success, they may have distinct perceptions of what constitutes such success. Hence, different factors will have a critical role in securing successful outcomes.

More recently, attempts have been made to capture this complexity by introducing composite, multi-dimensional scales to measure export performance, such as the EXPERF scale developed by Zou et al. (1998). It may be argued that this composite, three-dimensional scale comprising financial and strategic export performance measures, and measures of satisfaction with the export venture, bridges the divide between other objective and subjective performance measures. This scale has been empirically validated in a cross-national study of US and Japanese exporters (Zou et al., 1998), as well as in a study of UK and Australian exporters (Styles, 1998), and a study of British exporters (Beleska-Spasova and Glaister, 2012) strengthening its value as a valid generalised export performance measure.

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