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Does Improvisation Help or Hinder Planning in Determining Export Success?

Decision Theory Applied to Exporting

ABSTRACT

Exporting allows organizations to diversify risk and generate multiple income streams, which plays an important role in the viability of firms. In turn, making good export decisions is hailed as one of the main determinants of performance. However, substantive export decisions are well researched, but little is still known about how export decisions are/should be made in practice. This study addresses this gap using decision theory (normative and descriptive approaches). In particular, the interaction of planning and improvisation is assessed and its impact on export performance examined. A conceptual model was developed through exploratory research, tested through the use of structural equation modelling, and explained via post-hoc in-depth interviews (in three studies). The results indicate improvisation has multiple dimensions (spontaneity, creativity and action-orientation) and multiple consequences; that planning and improvisation both enhance performance through responsiveness, that action-orientation helps planning result in greater responsiveness, but that spontaneity and creativity can be harmful to the effectiveness of planning (in terms of responsiveness and financial performance). Results are discussed, contribution outlined, and further research proposed.

Key words: Exporting, decision-making, planning, improvisation, export performance
Exporting is considered to be the most popular and quickest mode of international market entry (Hultman, Katsikeas and Robson 2011), and is more a matter of survival than choice for many firms that face challenging economic conditions (Hultman, Robson and Katsikeas 2009). As a result, an understanding of the determinants of export performance has become particularly important for marketing academics, managers, and policy makers alike. Against this background export decision-making has been identified as one of the core drivers of a firm’s success (Raven, McCullough and Tansuhaj 1994). However, little is still known about how export marketing decisions are made. To assist in developing a model of export decision-making, decision theory is used as a platform.

The origin of decision-making research is rooted in decision theory, where decision-making is examined from two distinct angles: normative and descriptive (Miller 1987). The normative approach to decision-making describes managers as rational actors who are able to make optimal choices while developing decisions (e.g. Slater, Olson and Hult 2006). Traditionally, this approach to decision-making within the firm has been associated with planning (Greenley, Hooley and Saunders 2004). The ability to make decisions in a rational and comprehensive manner enables companies to outperform competitors (e.g. Wiltbank et al. 2006) and achieve export success (Shoham 2002). However, some scholars argue that planning can also result in negative outcomes for the company (e.g. Chae and Hill 2000) and for the export function (e.g. Katsikeas, Piercy and Loannidis 1996). This discrepancy may be due to the fact that research on export decision-making has tended to focus on planning, overlooking other ways in which exporters make decisions. Going back to decision theory, we find that normative decision theory is counterbalanced by the descriptive approach to decision research. The descriptive approach suggests that in reality many decisions affecting firm performance are made outside the planning process (Grant 2003). This form of decision-
making is considered to be more responsive, adaptive, spontaneous, and creative (Ford, Sharfman and Dean 2008). In turn, spontaneity and creativity are associated with improvisation (Vera and Crossan 2005).

Improvisation research within the marketing field, however, is still in its infancy (Kyriakopoulos 2011), and the majority of marketing scholars fail to recognize the importance of improvisation for successful decision-making (Chelariu, Johnston and Young 2002). The same applies to the field of export marketing, where the topic of export improvisation is often overlooked (Nemkova, Souchon and Hughes 2012). As a result, a holistic view of export decision-making where both planning and improvisation are taken into account is lacking from the field (e.g. Kamoche, Cunha and Cunha 2003; Dew et al. 2009). This results in an incomplete consideration of the process of export decision-making in firms and the development of misspecified models in extant research. This may go some way towards explaining discrepancies in export planning research: the respective drawbacks of planning and improvisation could be cancelled out when the two approaches are applied together, and their combined application could result in better outcomes for the company (c.f. Slater, Olson and Hult 2006). Thus, it is important to examine the influence of both planning and improvisation on export performance and whether both co-exist in firms.

The current study has the following objectives: (a) to investigate the relevance of improvisation to the exporting context; (b) to investigate the relationship between both export planning and export improvisation and export performance; (c) to investigate the outcomes of the interaction between planning and improvisation on export performance.
Theoretically, we contribute to export marketing knowledge by integrating decision theory to the study of export decision-making. Thus, we draw on normative and descriptive approaches to decision research to develop and test a model of export planning and improvisation. The results are expected to provide deeper insights into export decision-making as a determinant of export success and stimulate academic debate on how effective export marketing decisions are made. For managers, it is argued that the pace of change in the international business environment is accelerating, which increases its unpredictability. Under those conditions, good decision-making is crucial for companies attempting to further develop their export activities. In general, the findings of this research will provide further insights for practitioners into the effective export decision-making.

The paper proceeds with a discussion of the decision-making literature and the development of a conceptual model. The methodology employed to test the hypotheses is then described, followed by the results, post hoc qualitative analysis and discussions. This paper is concluded with theoretical and practical implications, limitations and future research directions arising from the study.

BACKGROUND

Globalization of the economy and increased international competition have made international marketing decisions ever more critical to the survival, growth and profitability of companies operating worldwide (Katsikeas, Samiee and Theodosiou 2006). Decision-making is one of the main functions of management (Bailey, Johnson and Daniels 2000), and being a key part of a manager’s daily work, it influences a firm’s performance and success (Dean and Sharfman 1996; Ireland and Miller 2004). To understand how the decision-making process
influences export performance, an overview of the decision theory literature is presented. The normative approach in decision theory is based on the concept of rationality and aims to prescribe how decisions should be made (e.g. Tamura 2008). This approach is underpinned by the notion that optimal decision-making entails predicting what to do next to achieve better outcomes through planning (Wiltbank et al. 2006). Thus, planning is defined as a process of developing definite and precise objectives, collecting and analyzing information, and evaluating different options in order to formulate a solution to a problem or to make a decision (c.f. Bailey, Johnson and Daniels 2000).

In parallel to the development of normative models, another approach to decision-making has been developed within decision theory. As far back as the 1950s, Simon (1955) concluded that human actions are restricted by cognitive limitations and that people usually aim to satisfice rather than optimize their options. This idea gave rise to the development of descriptive models of decision-making based on the concept of bounded rationality (Bell, Raiffa and Tversky 1988). Some researchers (e.g. Baum and Wally 2003; Vareman 2008) state that real-life decision-making processes rarely follow the normative approach as managers have to multitask by juggling a number of decisions at the same time (Nutt 2008). In general, decision-making is considered to be more responsive, adaptive, spontaneous, and creative (Ford, Sharfman and Dean 2008). This type of decision-making is often associated with improvisation (Crossan et al. 1996), which is defined as ‘the spontaneous and creative process of attempting to achieve an objective in a new way’ (Vera and Crossan 2005 p.733). First, this definition incorporates the extemporaneous nature of improvisation, producing ‘spur of the moment’ action (Weick 1998). Second, for improvisation to happen the decision-making process has to include some creative elements (Magni, Provera and Prosperio 2010).
Finally, improvisation has to be action-oriented, when managers are persistent and not distracted from making decisions (Diefendorff et al. 2000; Hmieleski and Corbett 2006).

Traditionally, planning and improvisation were considered to be opposite poles of the same continuum. However, this assumption can be challenged based on evidence from strategic management on deliberate and emergent decision-making (e.g. Hart and Banbury 1994; Mintzberg and Lampel 1999). A deliberate approach to decision-making represents a rigid decision-making process (e.g. Mintzberg 1994), which is difficult to follow in reality, whereas emergent decision-making when applied without any prior preparation could lead to chaos (Brown and Eisenhardt 1998). As a result, currently there is an increasing interest into the co-existence of the different approaches. Some scholars argue that if companies are able to combine deliberate and emergent decision-making effectively, they will respond better to environmental changes and enjoy higher performance levels (e.g. Sharfman and Dean 1997; Slater, Olson and Hult 2006; Dibrell et al. 2007). Similar arguments can be applied to planning and improvisation. Planning is described as a deliberate and rigid approach to decision-making compared to improvisation, which is more informal and flexible due to its emergent nature (Kyriakopoulos 2011). While planning is criticized for its rigidity, improvisation may be viewed as being chaotic. Planning, then, could serve as a template or framework upon which improvisation takes place (Kamoche and Cunha 2001) which will limit ‘the likelihood of uncoordinated effort or chaos’ (Kyriakopoulos 2011, p. 1058) and allow companies to respond more effectively to changing market conditions (Dennis and Macaulay 2003). Thus, the combination of planning and improvisation can be potentially beneficial for companies; however, research has seldom sought to examine these approaches simultaneously in order to test the relevance of these propositions.
Prior to conceptual development, qualitative research was conducted to get deeper insights into the research gaps identified as there is limited information available on how export marketing decisions are made and whether export managers use a combination of decision-making approaches (planning and improvisation) in practice. The population of interest included export decision-makers in manufacturing firms in the UK. The majority of export performance studies focus on manufacturing firms, with few studies having been conducted in the service sector (e.g. Cadogan et al. 2002; Sousa, Martinez-Lopez and Coelho 2008). The key differences between manufactured goods and services are well understood in marketing, and these include inseparability of production and consumption, intangibility, variability and perishability of services (Zeithaml 1981; Knight 1999). La, Patterson and Styles (2005) suggest that the traditional export performance model cannot easily be applied to service firms, especially due to the characteristics of inseparability and intangibility. Despite the fact that some export success factors could be common to both manufacturing and service firms, many are more likely to be specific to services (Styles, Patterson and La 2005; Sichtmann and von Selasinsky 2010) and not considered within the scope of the current study. Twelve in-depth interviews were conducted with managers responsible for export decision-making. The job title was not specified in advance as depending on the structure and a size of the firm different types of managers may be in charge of export duties (e.g. export manager, marketing and sales director, managing director etc.). For example, some companies do not have a dedicated export department, which means that export functions are incorporated within the other departments (often sales and marketing). The information was derived from a variety of exporters in terms of size (e.g. number of employees), industry operating in, countries exporting to (region, number) and years of exporting (see Appendix A), as the aim of the exploratory research is to increase marginal contribution of each potential case rather than collect generalizable data (Gummesson 2000). Collecting the information from a wide variety
of companies allowed to maximize the findings and obtain potentially rich data. The data analysis was based on Miles and Huberman’s (1994) approach and involved three main stages: data reduction, data display (within- and cross-case displays) and conclusions. Due to the exploratory nature of the study, mainly in-vivo codes were used (Denzin and Lincoln 2000) rather than pre-selected codes drawn from the literature. Previously determined codes could restrict the analysis with the ideas already established in the literature. The codes of twelve interviews were arranged in 29 within-case displays. All transcripts were summarized as both networks and matrices. These were then pooled in the form of one cross-case display (see Appendix B). The discussion of exploratory findings is incorporated into the development of the conceptual model.

**STUDY 1 AND CONCEPTUAL MODEL**

**Decision-Making and Export Performance**

In this study export performance is viewed as a two-dimensional construct: customer performance and financial performance. Customer performance relates to the firm’s ability to satisfy and retain customers (Leonidou, Palihawadana and Theodosiou 2011), whereas financial performance refers to a firm’s sales and profits indicators (e.g. Cadogan, Kuivalainen and Sundqvist 2009). The respondents of the exploratory study often viewed the relationship between export planning and export customer performance as negative. Managers claimed that planning slows down the decision-making process (e.g. Company 4, Company 5), as obtaining detailed information is time-consuming (Fredrickson 1984; Atuahene-Gima and Murray 2004). The delay in decision-making regarding customers’ requests may result in decreased customer satisfaction (c.f. Jayachandran, Hewett and Kaufman 2004). In day to day
business operations, customers sometimes expect quick solutions to their problems (Company 9), and identifying them often requires an ‘outside the box’ approach rather than sequentially following established procedures. Similarly, not being able to make a decision rapidly enough could discourage customers from working with the exporter in the future (Company 4), which affects customer retention. Accordingly:

Hypothesis 1: Export planning is negatively related to export customer performance.

The influence of export planning on export financial performance is more promising. Planning helps to communicate the firm’s initial intentions to its employees and unites them in pursuing the same financial goals (Company 6). The formality of the planning process encourages setting clear objectives and defining positions of responsibility. This helps to make the goal achievement process more transparent and focused (Shoham 2002). Export planning emphasizes the firm’s commitment to a certain decision or a course of action, which in turn also includes allocation of appropriate resources (Shoham 1999; Pulendran, Speed and Widing 2003; Slotegraaf and Dickson 2004). The nature of the planning process ensures that resources will be used as effectively as possible because the optimal option was chosen (Walters 1993), which leads to increased financial reward (Timmor and Zif 2005). Based on the above, it is proposed that:

Hypothesis 2: Export planning is positively related to export financial performance.

The speed with which decisions are made is a product of the spontaneous nature of improvisation (Moorman and Miner 1998). Spontaneity allows actions to be undertaken
quickly or even immediately, which can be crucial when handling customer requests (Barrett 1998). Meanwhile, the creativity dimension of improvisation (‘out of the box’ approach) enables an export function to come up with solutions to unusual customer problems (c.f. Brown and Eisenhardt 1998). It enhances product differentiation which can result in increased customer loyalty and satisfaction (Im and Workman 2004). Finally, action-orientation also can be beneficial for customer performance. It enables the export function to stay focused and be able to prioritize customer needs. For example, the manager from Company 3 explained that their export function is very focused on the task of market expansion (‘looking for a new market’) and believe that a customer-focus is the most important in achieving customer satisfaction. Thus:

Hypothesis 3: (a) Spontaneity, (b) creativity, and (c) action-orientation are positively related to export customer performance.

The results of the exploratory study show that the dimensions of export improvisation are able to positively influence financial performance. Some respondents (e.g. Company 5) viewed spontaneous decision-making as one of the key drivers of their sales growth as it helps them to capitalize on market opportunities. The manager from Company 8 explained that creativity allows for cost reduction when compared to planning. Planning requires a certain amount of information whereas creativity (e.g. brainstorming) can substitute for a lack of information and save the export function from spending additional financial resources (c.f. Cunha 2007). Creativity also plays a crucial role in solving product-related problems by providing divergent ideas which guarantees the financial success (Im and Workman 2004). Action-orientation enables the export function to focus on financial objectives and achieve them better (Company 10). In sum:
Hypothesis 4: (a) Spontaneity, (b) creativity, and (c) action-orientation are positively related to export financial performance.

**Decision-Making and Responsiveness**

Nowadays, increased international competition and continuously evolving customer needs put additional pressure on companies to be more responsive to environmental changes (c.f. Martens, Matthyssens and Vandenbempt 2012). The results of the preliminary qualitative study showed that the relationship between export decision-making (planning and improvisation) and export performance can be mediated by responsiveness, which is conceptualized as ‘quick adaptation to environmental changes’ (Homburg, Grozdanovic and Klarmann 2007). Sharfman and Dean (1997) argue that the decision-making process is key to being able to respond to changes in the environment and flexibility in the decision-making process is, in turn, associated with improvisation (Vera and Crossan 2005). Firms with greater flexibility in decision-making have a better ability to respond to environmental changes ‘just in time’ (e.g. Weick 2001; Dibrell et al. 2007). Improvisational decision-making is not only spontaneous, it is also discovery driven (creative), aiming to explore unexpected opportunities or deal with unforeseen threats (Cunha, Kamoche and Cunha 2003). The ability to generate creative ideas is crucial for the effective response to changing market needs (Im and Workman 2004). To respond to external opportunities and threats, managers are expected to make decisions that are unusual, innovative and different from the norm (Sharfman and Dean 1997). Meanwhile, the ability to focus on making decisions (action-orientation) is essential when quick responses to environmental changes are called for. If the export function is
distracted, it can miss market opportunities that require rapid responses (Company 9, Company 10). Thus:

Hypothesis 5: (a) Spontaneity, (b) creativity, and (c) action-orientation are positively related to the responsiveness of the export function.

Planning seems to be incongruent with responsiveness as the need for quick responses to environmental changes is in conflict with the time-consuming nature of planning (e.g. Fredrickson 1984; Sousa, Ruzo and Losada 2010). In this case, even if the exporter recognizes the need to make amendments to a planning process, it may not be able to do it effectively as there is not enough time (c.f. Wiltbank et al. 2006). The manager from Company 1 explained that they had a detailed export plan for the US market. However, when they were unable to execute it as it is (due to unforeseen circumstances), they could not adapt promptly enough and as a result lost their presence in the States. Thus, a slow response to market changes is likely to result in lost opportunities because the ‘right’ action is implemented at the ‘wrong’ time (Chelariu, Johnston and Young 2002). Moreover, the planning process creates a degree of inflexibility in adapting and responding to changes in the environment, which decreases responsiveness (c.f. Souchon et al. 2004). Based on the above:

Hypothesis 6: Export planning is negatively related to the responsiveness of the export function.

It is proposed that export responsiveness is positively related to export customer performance. Customer satisfaction and retention is largely dependent on the effort a company devoting to its customers (Slater and Narver 1995). Companies that are able to respond quickly to
environmental changes tend to have a good understanding of their customers’ preferences and as a result are able to deal better with customer requests (Jayachandran, Hewett and Kaufman 2004). Firms with a better understanding of export customers are better able to anticipate their future requirements and needs (Cadogan et al. 2012), which in turn increases customer satisfaction (Cadogan et al. 2002) and retention (Martin and Grbac 2003). In other words, more responsive companies are more likely to achieve a more loyal and sustainable customer base (Sousa, Ruzo and Losada 2010). Thus, it follows that:

Hypothesis 7: Export responsiveness is positively related to export customer performance.

A similar logic applies to financial performance. The macro-environment can be argued to be beyond the control of managers, who as a result need to be able to adapt quickly to ensure long-term financial success (Lyus, Rogers and Simms 2011). Timely responses to environmental challenges and opportunities are often associated with positive performance outcomes. For example, being responsive to local markets increases a foreign firm’s financial performance (Luo 2001; Lee 2010). Cadogan et al. (2012) claim that if a company has a high level of export responsiveness, it can better achieve its short-term and long-term objectives (sales, market share and profit). Even a suboptimal but timely response can be more profitable in the long-term rather than a slow correct response (Smith et al. 1989). Indeed, longer delays in responding to environmental changes in the export market may cause a firm to lose local presence, which results in further financial losses (c.f. Lee 2010). Therefore:

Hypothesis 8: Export responsiveness is positively related to export financial performance.
Moderating Role of Improvisation

There is increasing academic interest in the combination of decision-making approaches. A number of scholars believe that the ability to make decisions in different ways makes a firm more sustainable in a variety of business situations and throughout environmental changes (e.g. Hart and Banbury 1994; Sharfman and Dean 1997; Slater, Olson and Hult 2006). If managers religiously follow the planning process, they can find themselves disconnected from the day-to-day business in their firms. Dibrell, Down and Bull (2007) argue that firms with greater flexibility and less specific planning will be better at recognizing and meeting the needs of their customers. At the same time spontaneity will ensure that the export function undertakes actions without substantial delays in order to meet those needs (Nemkova, Souchon and Hughes 2012). Creativity in the planning process will help firms to deal with unusual customer requests and avoid routinization (Dennis and Macaulay 2003), while action-orientation will lead to the needs and preferences of customers being considered in the planning process (Company 3). Thus:

Hypothesis 9: The relationship between export planning and export customer performance is moderated by (a) spontaneity, (b) creativity, and (c) action-orientation; when (a) spontaneity, (b) creativity, and (c) action-orientation is low, the relationship is negative, and when (a) spontaneity, (b) creativity, and (c) action-orientation is high, it is positive.

According to the results of the exploratory study, the financial benefits for the company can increase when both planning and improvisation are used together. For instance, a manager
from Company 5 explained that they use planning to deal with established activities but rely on more spontaneous, creative and action-oriented decision-making to react to market opportunities. This decision-making approach led to company growth and export sales growth in a new market. Moreover, some researchers argue that companies that are able to combine deliberate (e.g. planning) and emergent decision-making (e.g. improvisation) effectively tend to make better choices when opportunity arises and enjoy higher performance levels (e.g. Sharfman and Dean 1997; Slater, Olson and Hult 2006). Similarly, Eisenhardt (1989) found that decision-making in the most successful companies was both fast and comprehensive. Thus, it is proposed that:

**Hypothesis 10:** The relationship between export planning and export financial performance is moderated by (a) spontaneity, (b) creativity, and (c) action-orientation; when (a) spontaneity, (b) creativity, and (c) action-orientation is low, the relationship is positive, and when (a) spontaneity, (b) creativity, and (c) action-orientation is high, the relationship is stronger.

When long-range planning is complemented by a high degree of decision-making flexibility in day-to-day operations, then managers are able to respond better to environmental changes (Dennis and Macaulay 2003; Dibrell et al. 2007). Planning provides additional information about the environment (Dvir, Raz and Shenhar 2003), while spontaneous, creative and action-oriented decision-making results in quick reactions to environmental changes (Sharfman and Dean 1997). This allows the organization to simultaneously create clear future directions (Company 3), to detect when changes occur in the market and be better aligned and to respond quicker to the external environment and unanticipated situations (Eisenhardt, Furr
and Bingham 2010). Thus, it is proposed that dimensions of improvisation also moderate the relationship between export planning and responsiveness.

Hypothesis 11: The relationship between export planning and export responsiveness is moderated by a) spontaneity, (b) creativity, and (c) action-orientation; when (a) spontaneity, (b) creativity, and (c) action-orientation is low, the relationship is negative, and when (a) spontaneity, (b) creativity, and (c) action-orientation is high, it is positive.

Performance

The relationship between export customer performance and export financial performance is proposed to be positive. Companies that are able to satisfy customers’ needs better than their competitors will experience higher sales growth as they are better able to attract and keep customers (Slater and Narver 2000). In the exporting context Leonidou, Paliwawadana and Theodosiou (2011) argue that more satisfied customers will be more willing to make repeat purchases based on their previous positive experience with a company. The results of the exploratory study support this assumption. For example, a respondent from Company 2 explained that most of their new customers come to them through recommendations. This not only increases their sales but also significantly reduces the costs associated with new customer acquisition. Thus, the following can be surmised:

Hypothesis 12: Export customer performance is positively related to export financial performance.

Insert Figure 1 about here
METHODOLOGY OF STUDY 2

The second study was designed to test the hypotheses presented above. A cross-sectional design using self-reported data from manufacturing firms engaged in export marketing was adopted to allow for greater variability in export decision-making approaches and reduce potential sampling bias. The unit of analysis for this study was the export function. The sampling frame was the British Exporters database. Using a systematic random sampling procedure, 1530 exporting manufacturers in the UK were selected for the sample. Sampled firms were contacted prior to the survey to ascertain the name of the most appropriate manager so that the survey was administered to the most appropriate export decision-maker. 320 were found to be ineligible during the pre-notification stage. An online questionnaire was sent to the manager responsible for export marketing decisions in the firm followed by four waves of follow-ups, based on Dillman’s (2007) recommendations. The final sample comprised of 200 respondents providing a usable response rate of 16.5%.

Existing measures were used for most of the constructs in the study and all were adapted to the exporting context. Planning measures were adapted from Bailey, Johnson and Daniels (2000). Improvisation was operationalized as three constructs, including spontaneity, creativity and action-orientation. The measures of spontaneity were developed from Moorman and Miner (1998), Vera and Crossan (2005) and the current exploratory study. The items for creativity were developed from Hmieleski and Corbett (2006). Action-orientation items were based on the measures proposed by Diefendorff et al. (2000) and Hmieleski and Corbett (2006). The responsiveness construct was measured based on the work of Souchon et al. (2004). The measures of export customer performance and export financial performance were
adapted from Hultman et al. (2009), Shilke, Reimann, and Thomas (2009) and Leonidou, Paliwadana and Theodosiou (2011). Technological turbulence and competitive intensity were also measured (adapted from Kaleka and Berthon 2006) and included as control variables in data analysis.

Measure development was undertaken via Confirmatory Factor Analysis (CFA) in Lisrel 8.71, and this was followed by structural equation modeling again in Lisrel 8.71. The moderator analysis was conducted by creating interaction terms between planning and spontaneity, creativity, action-orientation respectively. The interaction terms were then orthogonalized using a residual-centering approach in order to minimize the risk of multicollinearity.

Common method variance (CMV) was assessed through Harman’s single factor test using the construct of social desirability (Podsakoff et al. 2003). The results of the CMV model indicated a deterioration in the $\chi^2$ and all other fit indices examined (RMSEA, CFI, NNFI, GFI). The results suggest that common method bias is not likely to influence the relationship between the constructs (see Appendix C).

RESULTS OF STUDY 2

Confirmatory factor analysis (CFA) was used to analyze the psychometric properties of the scales. The final overall CFA provides good fit to the data ($\chi^2 = 691.926$, d.f. = 524, RMSEA=0.040, CFI=0.975, NNFI=0.972, GFI=0.834) (see Appendix C). All factor loadings were 0.7 or above providing evidence of good internal consistency (Anderson and Gerbing 1988) (see Appendix D). Composite reliability and average variance extracted (AVEs) were
also computed and were above threshold levels. Discriminant validity was assessed by comparing the AVEs with squared correlations (Fornell and Larcker 1981). All the AVEs estimated were found to be higher than squared correlations which provide a good evidence of discriminant validity (see Appendix E).

With the psychometric properties of the measures established, the structural equation model was run to test the hypotheses. The results of the structural model indicated a good fit to the data ($\chi^2 = 88.153, \text{d.f.}= 63$, RMSEA=0.043, CFI=0.986, NNFI=0.969, GFI=0.952) (see Appendix C). Based on t-values and coefficients associated with each relationship, H1 and H2 are supported. Specifically, export planning is negatively related to export customer performance ($\gamma = -.182, p < 0.05$) and positively related to export financial performance ($\gamma = .226, p < 0.05$). H3 is partially supported. No significant relationship between spontaneity and creativity and export customer performance was uncovered ($\gamma =-.088, p > 0.05; \gamma =.112, p > 0.05$) (H3a and H3b). However, there is a strong positive relationship between action-orientation and export customer performance ($\gamma =.285, p < 0.05$) (H3c). Thus, while the different dimensions of improvisation were hypothesized as having the same outcomes, this was not found to be the case. In previous studies, organizational improvisation is often conceptualized as a multi-dimensional construct (e.g. Crossan et al. 1996; Vera and Crossan 2004), but most researchers measure it as uni-dimensional or as a higher-order factor (e.g. Moorman and Miner 1998). However, the current results suggest treating spontaneity, creativity, and action-orientation as separate constructs (facets of improvisation), which is in line with current thinking on the use of multi-dimensional constructs (Lee, Cadogan and Chamberlain 2013). In relation to H3, the findings show that export customers value actioning decisions more than any other aspect of the decision-making process. No support was found for H4. No significant relationship was found between spontaneity, creativity, action-
orientation and financial performance (γ = -0.074, p > 0.05; γ = 0.192, p > 0.05; γ = 0.010, p > 0.05). The results indicate that improvisation does not necessarily lead to financial benefits for the export function. Improvisation, and more specifically spontaneity and creativity, are associated with a trial-and-error approach, whereby mistakes are an unavoidable part of the process (Orlikowski 1996; Jambekar and Pelc 2007). Spontaneity relates to making decisions on the feet, which can be financially more expensive compared to decisions that are rationally planned (c.f. Vendelo 2009). It can be the case that creativity (e.g., ideas developed through brainstorming) is sometimes costly for the export function as the potential financial expenditures are not rationally evaluated using external information prior to the decision-making process. The results provide support for H5. Spontaneity, creativity and action-orientation are positively related to export responsiveness (γ = 0.158, p < 0.05; γ = 0.157, p < 0.05; γ = 0.255, p < 0.05). Improvisational activities are sometimes criticized for being reactive (c.f. Cunha et al. 1999) (being a reaction to some external conditions) rather than proactive (trying to shape and control the environment). The reactive qualities of improvisational activities should not be underestimated as they allow the company to be market-driven (Johnson et al. 2003) and respond better to environmental changes.

No support was found for H6. The results contradict the hypothesized negative relationship between export planning and export responsiveness as the relationship is positive (γ = 0.171, p < 0.05). This means that planning does not necessary slow down companies’ response to environmental changes. Regarding the relationship between export responsiveness and export performance, the results provide support for a positive relationship (β = 0.223, p < 0.05) (H7). No relationship is found between responsiveness and financial performance (β = -0.042, p > 0.05) (H8). It can be argued that rapid responses to environmental changes allow better dealing with customer needs, but require substantial financial resources to do so.
Hypothesis H9 is not supported. No support was found for the moderating effects of spontaneity, creativity and action-orientation on planning-customer performance relationship ($\gamma = .040, p > 0.05; \gamma = .009, p > 0.05; \gamma = .097, p > 0.05$) (H9a, H9b and H9c). The results indicate that a simultaneous application of the facets of improvisation alongside planning is not able to turn the negative relationship between planning and customer performance into positive. The results show no support for H10. The relationship between export planning and export financial performance was found to be negatively moderated by spontaneity ($\gamma = -.150, p < 0.05$), rather than positively as it was hypothesized (H10a). No support was found for creativity and action-orientation ($\gamma = .060, p > 0.05; \gamma = -.039, p > 0.05$) (H10b and H10c).

Perhaps spontaneity reduces the company’s protection against mistakes (c.f. Barrett 1998) as it encourages managers to make decisions (too) quickly. It can be risky, especially for long-term financially driven decisions, and the occasional mistake can be quite ‘expensive’ for the export function. The results show partial support for H11. The relationship between export planning and export responsiveness is contingent on levels of creativity ($\gamma = -.230, p < 0.05$) (H11b) and action-orientation ($\gamma = .174, p < 0.05$) (H11c). However, no support was found for spontaneity ($\gamma = -.035, p > 0.05$) (H11a). The results show that formal planning and creativity do not work well when executed simultaneously. Creative behaviour, favors chaos when there is no structure imposed on the process (for example, brainstorming). Non-creative behaviour relies on thinking in certain patterns and structures, whereby steps are pre-determined. Thus, if creativity favors uncertainty, planning aims to reduce uncertainty (Dvir et al. 2003). On the other hand, the condition of action-orientation complements the traditional planning approach and promotes result-oriented thinking (Andersen, 1996). Finally, H12 is supported. The results show a strong, positive relationship between export customer performance and export
financial performance ($\gamma = .794$, $p < 0.05$). this finding supports our argument that export sales and profit are heavily dependent on the export customer satisfaction and retention.

**STUDY 3**

The results of the quantitative research demonstrated that the proposed conceptual model is partially supported. In order to get deeper insights into the uncovered relationships and better explain the findings, a post hoc qualitative study was undertaken. We approached thirteen export managers to ask them to explain some if the findings based on their export experience. Similarly, to Study 1 the information was collected from a wide variety of manufacturing companies in the UK (in terms of size, number of employees, industry operating in, years of exporting, and countries exporting to) (see Appendix F).

In relation to hypotheses H1 and H2 managers explained that in order to be successful export decisions have to be based on customer feedback (Company 2), whereas the planning approach can be too rigid to incorporate such a feedback (Company 3). Relying on planning ‘will have a tendency to make a customer feel like a number… a company which works in that way has no competitive advantage’ as it lacks the flexibility in dealing with customer matters: ‘any plan falls down where the customer has a sudden change of direction’ (Company 13). At the same time planning can be very beneficial for financial performance (e.g. to increase prices of export products by 3% every year), as it helps the company ‘make more money’ (Company 5); however, some of the planned decisions might ‘upset the customers’ (Company 3). Manager from Company 8 described the opposite effects of planning in the following way: ‘I think when you start doing too much of formal planning, you can spend so much time
looking at the figures relating to the market and trying to ensure that you make a right
decision, that you actually forget focusing on the customers and looking after them’.

The managers clarified why there is potentially no direct positive relationship between
spontaneity and creativity and both customer and financial performance (H3a & H3b;
H4a & H4b). It was suggested that spontaneous decisions, on the one hand, can be very risky
because ‘there is always a danger to get it wrong’ (Company 11) and ‘just quick spontaneous
decisions can actually wipe the market off’ (Company 1). Spontaneous decisions are less
‘safe’ in comparison with the planning approach (Company 5). On the other hand they can be
very successful: ‘if you are in front of the customer, they expect you to have a certain amount
of power and decision-making capability [to make a spontaneous decision]’ (Company 4).
Managers agree that the success of spontaneous decisions depends on the years of previous
experience (e.g. Company 5, Company 7, Company 9) which makes it difficult for new
exporters (Company 6). In relation to creative decisions, it was explained that ‘inventive
always takes time to be accepted on the market place… inventive can be a turnoff to
customers till somebody comes along and proves to them that things can be better’ (Company
1). If the export function is very creative it is not necessarily seen as having positive
implications: ‘if somebody is very good at creative and novel thinking, there is a danger they
are constantly changing things’ (Company 13). Manager from Company 4 extended this
argument, clarifying ‘if the customer is relatively happy, he is not going to want it to change’.
These explanations allow to create propositions for future research that the relationships
between spontaneity and creativity, and export performance (customer and financial) are not
necessary linear, but can be positive up to a point (quadratic, inverted u-shape relationship)
and be potentially moderated by the company’s export experience. Details were also provided
for the relationship between action orientation and export performance. The manager from
Company 1 explained that in their export operations, action orientation can be very helpful for customer satisfaction (H3c), however does not necessarily lead to financial performance (H4c): ‘we will not leave the job unfinished even if it costs money in the end to fulfill the contract... even if you made a mistake, it is how good you solve a mistake which then lets a customer come back to you’. It can also be suggested that the relationship between action-orientation and financial performance is quadratic as if ‘you remain incredibly focused, you wouldn’t be able to do other things, and then you would probably get broke’ (Company 2); ‘being persistent is costing a lot of money in today’s economic climate’ (Company 9).

Moreover, ‘sometimes being persistent can be viewed as being pushy’ and lead to loss of the contract (Company 4).

Managers’ explanations shed some light on the nature of the relationship between planning and responsiveness as the hypothesis of the negative relationship between these constructs was not supported (H6). Managers view responsiveness as a core to a sustainable business in the current international environment. They explained that the companies have to adapt in a timely way ‘if they want to survive’ (e.g. Company 7). Managers in general agreed that when ‘an opportunity arises you have to react quickly to it...you don’t have time to go through the process of evaluation and looking at the figures’ (Company 7). Nevertheless, in-depth interviews enabled to uncover that there are major differences between a ‘plan’ (as a document) and a ‘planning approach’. ‘If you have a structured plan, that can be a hindrance, because sometimes you need to be able to react quickly, but it is difficult to change the plan quickly’ (Company 5). Thus, ‘having a plan’ can be negatively related to responsiveness. At the same time depending on the nature of planning, it does not necessarily negatively influence the ability to adapt quickly to environmental changes. The results show that if planning is ‘constantly evolving’ and ‘absorbs changes’, then it allows for timely adaption to
external conditions (Company 8, Company 12). Thus, there has to be a clear distinction between a plan and a planning approach which both managers and academics often see interchangeably.

Finally, there were some clarifications provided on the moderating relationships (H9, H10 & H11). It was suggested that broadly there are two types of companies: ‘ones who are managing by numbers [mainly relying on planning] and ones who are managing by planting seeds, trying things out [mainly relying on spontaneity and creativity]’ (Company 5). Managers agreed that there has to be a certain framework upon which spontaneous and creative decisions take place (e.g. ‘you can only be spontaneous if you’ve got a model that’s already embedded within the company’, Company 9) otherwise ‘you end up going in wrong directions and doing crazy things’ (Company 7). However, the post hoc research uncovered that this framework is much broader than the planning approach. It mostly includes the broad ideas of company directions and general long-term goals (Company 7, Company 8). Even if managers see that as co-existence of the decision-making approaches (planning and improvisation), the decision-making process of these companies is mostly relying on improvisation with just ‘some logic behind’ (Company 10). Manager from Company 3 confirmed that ‘you cannot be very systematic and very inventive at the same time’.

Nevertheless, it is possible (and often desirable) to apply those approaches in sequence within the same export function (Company 11). For example, the manager from Company 9 suggested that spontaneity and creativity can be used after planning as it ‘will allow you to modify those plans to meet market demand or change’.

To summarize, despite the fact that there is increasing attention to the idea of a combination of the decision-making approaches, researchers need to be aware that managers often rely on
different ways of making decisions, but use them mainly in sequence (e.g. at different stages of the decision-making process, for different types of decisions) rather than at the same point in time.

DISCUSSION AND CONCLUSIONS

This study provides new insights into export improvisation. The theoretical position on dimensions of improvisation needs to be rethought. A three-dimensional structure of improvisation was proposed, including spontaneity, creativity, and action-orientation. However, the analysis showed that improvisational ‘dimensions’ do not always lead to the same outcomes, and if the dimensions of the construct result in different outcomes, it ‘is normally indicative that the dimensions are in fact separate constructs’ (Lee and Lings 2008, p. 154) and should be treated independently. The current research demonstrates that spontaneity, creativity and action-orientation should be examined separately rather than combined into a single improvisation construct, as has been done in prior empirical research. Accordingly, it is worthwhile for researchers to examine in more detail the facets of improvisation and their differential effects on businesses.

The results also contribute to decision-making theory. Traditionally decision-making was examined from two distinct angles: normative and descriptive (Bell, Raiffa and Tversky 1988; Tamura 2008). The current research is the first attempt to combine both normative and descriptive approaches in the exporting context, whereby planning and improvisation are viewed as the main decision-making approaches. Previous research proposed that companies could benefit from a combination of decision-making approaches (e.g. Brown and Eisenhardt 1998; Dibrell et al. 2007). However, the results show that different approaches are not easily
combined. Despite the fact that spontaneity and creativity result in positive outcomes for the export function (increased responsiveness), their simultaneous combination with planning does not lead to the additional benefits for the company. A potential explanation can be found in the field of psychology. It is argued that creative and non-creative (habitual, structural) behaviour relies on different cognitive systems that cannot be observed at the same time (c.f. Kuhl 2000; Wierenga 2011). Planning allows for multiple options to be evaluated and optimal choices to be made (Fredrickson 1984), which leads to positive financial outcomes (e.g. Brews and Hunt 1999). On the other hand, spontaneity occurs without an order. It can bring a degree of randomness and chaos into the rational planning decision-making process.

According to the Oxford dictionary (http://oxforddictionaries.com/definition/english/chaos), chaos is a state of ‘confusion’ characterised by randomness and unpredictability. Spontaneity reduces the company’s protection against mistakes (c.f. Barrett 1998; Vendelo 2009). It can be risky, especially for long-term financially driven decisions, and the occasional mistake can be very ‘expensive’ for the export function. Creative behaviour, similar to spontaneity, favors chaos when there is no structure imposed on the process (for example, brainstorming). Non-creative behaviour relies on thinking in certain patterns and structures, whereby steps are predetermined. In other words, if creativity favors uncertainty, planning aims to reduce uncertainty (Dvir, Raz and Shenhar 2003). It can be the case that there is no direct linear relationship between spontaneity and creativity due to inertia towards existing ideas (Im and Workman 2004). On the other hand, the relationship between those constructs can be quadratic. It can be also proposed that creativity and spontaneity occur after planning, which helps to react to market opportunities and deal with unexpected customer requests. However, the important question is: which approaches then should be used simultaneously? The current findings provide an answer to that question. If the export function is aiming to achieve
success in both export customer and export financial performance, it has to implement planning and be action-oriented.

This research offers further insights to practitioners. In particular, from a managerial standpoint, the results of the current research show that there is no one ‘best way’ to make effective export decisions. If the company is lacking export experience planning could represent a more feasible approach as it embeds a better protection against mistakes. At the same time planning restricts variations and unpredictability of the company. It also makes it more difficult to sustain a customer focus during day-to-day export operations. Furthermore, managers have to recognize that there is a clear difference between a ‘plan’ as a document and a ‘planning approach’ to making decisions which should not be viewed interchangeably as they could result in different outcomes. Nowadays, when customers are becoming more demanding, competition is intensifying, and uncertainty of the macro environmental factors is increasing, it is important for managers to recognize that they should be able to step aside from established practices to timely respond to external conditions. If a company chooses to rely on export planning it needs to be flexible and have a capacity to absorb the change. While planning seems traditionally to be an accepted ‘norm’ and a better route to export success, facets of improvisation (spontaneity, creativity and action-orientation) appear to be equally important for the export function. Despite the fact that both spontaneity and creativity are not easily combined with planning, companies should try to avoid overrigidity in their export operations to leave the room for spontaneity and creativity when an opportunity arises or an unexpected problem occurs. In addition, an export function should work to respond to market changes in order to be able to listen to customer’s voice and be able to satisfy customers better than competitors. Concurrently, satisfied export customers drive companies export financial performance and guarantee the financial success.
The current study has a number of limitations. First, there are always inherent risks in ascribing causal inference based on a cross-sectional study compared to a longitudinal study. In order to reduce these risks the post hoc qualitative research was conducted in order to explain some of the unexpected results. Second, the current study was implemented through obtaining the information from a single respondent. One can argue that the use of multiple respondents may increase the reliability of the scales. However, the inclusion of less knowledgeable informants may decrease the accuracy of responses (Huber and Power 1985). Third, the research was conducted on exporting companies in the UK. As the sample of the current project is limited to British exporting firms, the results should only be generalized to this context.

The findings have major implications for future research directions. Researchers should not treat improvisation as a higher order construct as it may lead to losing valuable information on how it actually works and how it affects different aspects of performance. Moreover, the potential non-linear relationship between facets of export improvisation and export performance should be examined in further research. It may be that the relationship between facets of improvisation and export performance dimensions is positive up to a point.

Scholars can also explore conditions under which export improvisation leads to better performance. Drawing on equivocalities of interactions between planning and improvisational activities, it can be suggested that improvisation as a process leads to both positive and negative outcomes. That should encourage future research to look into conditions which make improvisation more or less successful. Past research paid attention mostly to environmental contingencies and structural contingencies (e.g. Moorman and Miner 1998). However, further
research can combine a contingency theory (Donaldson 2000) and the resource based theory of the firm (Westhead, Wright and Ucbasaran 2001) to explore whether the success of export improvisation is contingent on resources and capabilities available (e.g. export experience).

Finally, scholars must also devote attention to understanding how planning and improvisation can be combined within firms. This is an ambidexterity problem as managers are tasked with holding and implementing two, *prima facie*, very different approaches to decision-making. Understanding this may reveal new insights into successful performance and how to mitigate the downsides that planning and improvisation can entail.
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### APPENDICES

#### Appendix A: Company Characteristics

<table>
<thead>
<tr>
<th>Company reference number</th>
<th>Respondent’s position</th>
<th>Number of employees</th>
<th>Annual turnover</th>
<th>Export complexity (number of countries)</th>
<th>Export markets</th>
<th>Years on the market</th>
<th>Export experience</th>
<th>Product and/or sector of activity</th>
<th>Export intensity (% of sales)</th>
<th>Planning/improvisation of decision-making</th>
<th>Satisfaction with export performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Managing Director</td>
<td>4</td>
<td>£200 000</td>
<td>30</td>
<td>Canada, Pakistan, Europe</td>
<td>28 years</td>
<td>27 years</td>
<td>Machinery for cutting metal</td>
<td>20%</td>
<td>Improvisation</td>
<td>Not satisfied</td>
</tr>
<tr>
<td>2</td>
<td>Sales Manager</td>
<td>50</td>
<td>£10 million</td>
<td>28</td>
<td>EU and Norway</td>
<td>15 years</td>
<td>15 years</td>
<td>Data loggers, sensors and weather stations for Industry and Research</td>
<td>70%</td>
<td>Co-existence of planning and improvisation</td>
<td>Satisfied</td>
</tr>
<tr>
<td>3</td>
<td>Export Manager</td>
<td>50</td>
<td>£10 million</td>
<td>70</td>
<td>Europe, BRIC, Kazakhstan</td>
<td>43 years</td>
<td>25 years</td>
<td>Storage product for educational and medical markets</td>
<td>25%</td>
<td>Co-existence of planning and improvisation</td>
<td>Satisfied</td>
</tr>
<tr>
<td>4</td>
<td>Managing Director</td>
<td>4</td>
<td>Over £1 million</td>
<td>5</td>
<td>Ghana, Sirloin, Ethiopia, Bahrain, Yemen</td>
<td>60 years</td>
<td>60 years</td>
<td>Gold mining</td>
<td>99.6%</td>
<td>Improvisation</td>
<td>Satisfied</td>
</tr>
<tr>
<td>5</td>
<td>Export Manager</td>
<td>60</td>
<td>£6 million</td>
<td>3</td>
<td>Far East (Singapore), Germany, Brazil</td>
<td>290 years</td>
<td>10 years</td>
<td>Steel wire</td>
<td>10%</td>
<td>Co-existence of planning and improvisation</td>
<td>Partly satisfied</td>
</tr>
<tr>
<td>6</td>
<td>Major contracts manager</td>
<td></td>
<td></td>
<td>110 in the company, 1900 in the group, 7400 in the parent group</td>
<td>Far East, the US, Spain, South Africa, Australia</td>
<td>160 years, 8 years part of the bigger group</td>
<td>60 years</td>
<td>Converyer belting, food market</td>
<td>14-15%</td>
<td>Planning</td>
<td>Satisfied</td>
</tr>
<tr>
<td>7</td>
<td>Trade and export manager, Accountant (2 people)</td>
<td>10 (used to be with a factory around 30)</td>
<td>£3.5-4 million</td>
<td>10</td>
<td>Australia, Germany, the USA, Italy, Sweden, Switzerland</td>
<td>47 years</td>
<td>15 years</td>
<td>Advertising calendars 97.5% and 2.5% diaries, B2B</td>
<td>5-10%</td>
<td>Improvisation</td>
<td>Satisfied</td>
</tr>
<tr>
<td>Company reference number</td>
<td>Respondent's position</td>
<td>Number of employees</td>
<td>Annual turnover</td>
<td>Export complexity (number of countries)</td>
<td>Export markets</td>
<td>Years on the market</td>
<td>Export experience</td>
<td>Product and/or sector of activity</td>
<td>Export intensity (% of sales)</td>
<td>Planning/improvisation of decision-making</td>
<td>Satisfaction with export performance</td>
</tr>
<tr>
<td>--------------------------</td>
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<td>----------------</td>
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<td>-------------------------------------------------------------------------------</td>
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<td>----------------------------------</td>
<td>----------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>8</td>
<td>Managing director</td>
<td>4</td>
<td>£300 000</td>
<td>4</td>
<td>South Africa and Australia, indirectly China, Italy</td>
<td>6 years</td>
<td>4 years</td>
<td>Textile, cloths</td>
<td>used to be 17% last year, now 5-6%</td>
<td>Improvisation</td>
<td>Partly satisfied</td>
</tr>
<tr>
<td>9</td>
<td>Sales manager</td>
<td>10</td>
<td>£1.5 million</td>
<td>N/A</td>
<td>All countries</td>
<td>42 years</td>
<td>N/A</td>
<td>Analyzer systems (measuring water parameters), oil and gas industry</td>
<td>70%</td>
<td>Improvisation</td>
<td>Satisfied</td>
</tr>
<tr>
<td>10</td>
<td>Site manager</td>
<td>75 000, 3000 in the UK</td>
<td>£23.1 billion, for the UK $1 billion</td>
<td>N/A</td>
<td>all the world, for the UK Middle East, Africa, Europe</td>
<td>Over 100 years</td>
<td>Over 100 years</td>
<td>industrial products, 55 000 products</td>
<td>5-10%</td>
<td>Planning</td>
<td>Satisfied</td>
</tr>
<tr>
<td>11</td>
<td>Project director</td>
<td>15</td>
<td>£4-5 million</td>
<td>10</td>
<td>Africa, Middle East, Russia, Ukraine, South America, Australia</td>
<td>98 years</td>
<td>15 years</td>
<td>Incinerators, Oil and gas waste, camp waste, hospital waste</td>
<td>95%</td>
<td>Improvisation</td>
<td>Satisfied</td>
</tr>
</tbody>
</table>
Appendix B: Cross-Case Display

Export planning

- Consensus/Compromise between members
- Forecasting accuracy
- Control
- Effectiveness/efficiency

Quick adaptation to environmental changes:
- Customer
- Competitive
- Technological

Performance:
- Customer
- Financial

Customized approach to dealing with customer requests
- Flexibility
- Quick decision-making
- Unpredictability
- New solutions

Export improvisation

Decision-type
- Strategic
- Tactical

Structure
- Formalization
- Centralization
- Size

Resources
- Financial
- Time
- Human
Appendix C: CFA and SEM Results

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$(d.f.)</th>
<th>$\chi^2$/ (d.f.)</th>
<th>Sig.</th>
<th>RMSEA</th>
<th>90% CI</th>
<th>GFI</th>
<th>NNFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFA 1</td>
<td>209.094 (146)</td>
<td>1.32</td>
<td>.001</td>
<td>.044</td>
<td>.028-.058</td>
<td>.903</td>
<td>.982</td>
<td>.985</td>
</tr>
<tr>
<td>CFA 2</td>
<td>141.458 (125)</td>
<td>1.13</td>
<td>.149</td>
<td>.026</td>
<td>.0-.045</td>
<td>.927</td>
<td>.991</td>
<td>.993</td>
</tr>
<tr>
<td>CFA-ALL</td>
<td>691.926 (524)</td>
<td>1.32</td>
<td>.000</td>
<td>.040</td>
<td>.032-.048</td>
<td>.834</td>
<td>.972</td>
<td>.975</td>
</tr>
<tr>
<td>CFA-CMV</td>
<td>4544.877 (568)</td>
<td>8.00</td>
<td>.000</td>
<td>.188</td>
<td>.183-.193</td>
<td>.434</td>
<td>.660</td>
<td>.675</td>
</tr>
<tr>
<td>SM</td>
<td>86.153 (63)</td>
<td>1.37</td>
<td>.028</td>
<td>.043</td>
<td>.001-.064</td>
<td>.952</td>
<td>.969</td>
<td>.986</td>
</tr>
</tbody>
</table>

Note:
CFA1 = Confirmatory Factor Analysis containing planning, spontaneity, action-orientation
CFA2 = Confirmatory Factor Analysis containing responsiveness, customer performance, financial performance, technological turbulence and competitive turbulence
CFA-ALL = Confirmatory Factor Analysis of all measures
CFA-CMV = Confirmatory Factor Analysis with Common Method Variance Factor
SM = Structural Model
RMSEA = Root Mean Square Error of Approximation
90% CI = 90% Confidence Interval for RMSEA
GFI = Goodness of Fit Index
NNFI = Non-Normed Fit Index
CFI = Comparative Fit Index
## Appendix D: Factor Loading and Error Variance

<table>
<thead>
<tr>
<th>Variables</th>
<th>Completely Standardized loadings (Lambda X)</th>
<th>Error variance (Theta-Delta)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Export Planning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have well-defined planning procedures to search for solutions to exporting problems</td>
<td>0.675</td>
<td>0.544</td>
</tr>
<tr>
<td>We usually assess many alternatives when deciding on an export decision</td>
<td>0.709</td>
<td>0.497</td>
</tr>
<tr>
<td>We always evaluate potential export-market options against explicit export-market objectives</td>
<td>0.882</td>
<td>0.222</td>
</tr>
<tr>
<td>We generally develop definite and precise exporting objectives</td>
<td>0.860</td>
<td>0.260</td>
</tr>
<tr>
<td>We make our export decisions based on a systematic analysis of our business environment</td>
<td>0.791</td>
<td>0.375</td>
</tr>
<tr>
<td><strong>Export Improvisation: Spontaneity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We often make ad-libbed export actions</td>
<td>0.662</td>
<td>0.562</td>
</tr>
<tr>
<td>When necessary, we make export decisions out of the blue</td>
<td>0.814</td>
<td>0.338</td>
</tr>
<tr>
<td>In our export function, decisions are often made and implemented at the same time</td>
<td>0.725</td>
<td>0.475</td>
</tr>
<tr>
<td>We often figure out export action as we go along</td>
<td>0.683</td>
<td>0.533</td>
</tr>
<tr>
<td>When it is called for, we will make export decisions ‘on the hoof’</td>
<td>0.758</td>
<td>0.425</td>
</tr>
<tr>
<td><strong>Export Improvisation: Creativity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We always try new approaches to export problems</td>
<td>0.722</td>
<td>0.479</td>
</tr>
<tr>
<td>Our export work is very original</td>
<td>0.750</td>
<td>0.437</td>
</tr>
<tr>
<td>We are very good at finding new solutions to export problems</td>
<td>0.744</td>
<td>0.447</td>
</tr>
<tr>
<td>We often produce new ideas for doing exporting</td>
<td>0.788</td>
<td>0.383</td>
</tr>
<tr>
<td>In our export function, we serve as good role models for creativity</td>
<td>0.837</td>
<td>0.299</td>
</tr>
<tr>
<td><strong>Export Improvisation: Action-orientation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We are very persistent in seeing through our export decisions</td>
<td>0.838</td>
<td>0.297</td>
</tr>
<tr>
<td>We do not tend to be distracted when actioning an export decision</td>
<td>0.765</td>
<td>0.414</td>
</tr>
<tr>
<td>In our export function we are always action-oriented</td>
<td>0.664</td>
<td>0.559</td>
</tr>
<tr>
<td><strong>Export Responsiveness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our whole export function is very adaptable to change</td>
<td>0.758</td>
<td>0.425</td>
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<tr>
<td>We are able to adapt to market changes in our export market(s) quickly</td>
<td>0.901</td>
<td>0.187</td>
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<tr>
<td>We are very quick to adapt to shifts in our export market(s) (e.g. competition, technology, regulations)</td>
<td>0.905</td>
<td>0.180</td>
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</table>
We are very good at adapting to change in our export market(s) | 0.916 | 0.161
---|---|---
When we come up with a great solution to an export problem, we can implement it very quickly | 0.714 | 0.490

**Export Customer Performance**
- Export customer satisfaction | 0.826 | 0.318
- Retention of export customers | 0.803 | 0.356
- Company reputation among export customers | 0.733 | 0.462

**Export Financial performance**
- Export sales volume (in unit terms) | 0.867 | 0.249
- Reaching financial goals | 0.880 | 0.225
- Export profit growth | 0.810 | 0.344
- Absolute export sales revenue | 0.865 | 0.252

**Technological turbulence**
- The technology in our export market(s) is changing rapidly | 0.877 | 0.231
- Technological changes provide big opportunities for our export operations | 0.835 | 0.302
- A large number of new export product ideas have been made possible through technological breakthroughs in our industry | 0.702 | 0.507

**Competitive intensity**
- Competition in the majority of our export-market is cut-throat | 0.875 | 0.249
- This export-market is competitive; price wars often occur | 0.547 | 0.701
### Appendix E: Construct Validity Assessment (Squared correlations)

<table>
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<th>4</th>
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<td>.08</td>
<td>.32</td>
<td>.73</td>
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<td>.01</td>
<td>.01</td>
<td>.05</td>
<td>.02</td>
<td>.01</td>
<td>.00</td>
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<td>4.370</td>
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### NOTE:

CR = composite reliability
Average variance extracted (AVE) are presented in a diagonal
## Appendix F: Company Characteristics Post Hoc research

<table>
<thead>
<tr>
<th>Company reference number</th>
<th>Number of employees</th>
<th>Export complexity (number of countries)</th>
<th>Export markets</th>
<th>Export experience</th>
<th>Product and/or sector of activity</th>
<th>Export intensity (% of sales)</th>
<th>Export department</th>
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<tbody>
<tr>
<td>1</td>
<td>200</td>
<td>20</td>
<td>Middle East, Saudi Arabia, Egypt</td>
<td>50 years</td>
<td>Conveyor systems</td>
<td>10%</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>20</td>
<td>Broadly based</td>
<td>30 years</td>
<td>Heating systems</td>
<td>30%</td>
<td>No</td>
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<tr>
<td>3</td>
<td>160</td>
<td>50-60</td>
<td>Europe, Middle East</td>
<td>40 year</td>
<td>Construction</td>
<td>90%</td>
<td>Yes</td>
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<tr>
<td>4</td>
<td>700</td>
<td>150</td>
<td>Asia, the Americas, Caribbean, Middle East, Africa, Southern Europe and Scandinavia, Middle East</td>
<td>75 years</td>
<td>Plates and dishes</td>
<td>80%</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>50</td>
<td>15</td>
<td>China, Japan, New Zealand, Australia, South Africa</td>
<td>30 years</td>
<td>Electronic equipment</td>
<td>85%</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>45</td>
<td>30-40</td>
<td>Asia, Europe, Middle East</td>
<td>35 years</td>
<td>Wire termination and tension equipment</td>
<td>40%</td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>90</td>
<td>7</td>
<td>Iceland, Latvia, Lithuania, Romania, Sweden, Switzerland</td>
<td>40 years</td>
<td>Steel</td>
<td>100%</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>40</td>
<td>72</td>
<td>China, India, Singapore, Indonesia, Malaysia, that whole region is our one cluster. Japan, USA, Europe</td>
<td>30 years</td>
<td>Coatings and machines</td>
<td>80%</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>25-30</td>
<td>Europe</td>
<td>50 years</td>
<td>Shelving, racking</td>
<td>10%</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>10</td>
<td>Qatar, Saudi Arabia and United Arab Emirates</td>
<td>80 years</td>
<td>Electrical equipment</td>
<td>60%</td>
<td>No</td>
</tr>
<tr>
<td>11</td>
<td>22</td>
<td>20-25</td>
<td>Canada, USA, Finland, Sweden, Belgium, Holland, Syria, Kuwait, Amman, African states, India, Australia, Indonesia</td>
<td>30 years</td>
<td>Coatings</td>
<td>15-20%</td>
<td>No</td>
</tr>
<tr>
<td>12</td>
<td>160</td>
<td>20-25</td>
<td>Eastern Europe and Brazil, Mexico, India and China</td>
<td>20 years</td>
<td>Automotive and the component manufacture</td>
<td>70%</td>
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<tr>
<td>13</td>
<td>35</td>
<td>10</td>
<td>USA, Russia and China</td>
<td>More than 100 years</td>
<td>Manufactures machinery</td>
<td>80%</td>
<td>No</td>
</tr>
</tbody>
</table>