



Factors influencing the propensity to export: A study of UK and Portuguese textile firms

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ABSTRACT

The purpose of this paper is to determine which particular organisational and managerial factors contribute to the propensity to export in a declining sector. For this purpose the textile and clothing sector in Portugal and the United Kingdom is chosen for investigation. This study analyses firms' resources and capabilities, as well as decision-makers' objective and subjective characteristics in a sample of 167 Portuguese and 165 UK firms in the textile and clothing industry. The fundamental research questions are: which characteristics of the firm are associated with stronger export propensity, and is it possible to identify a profile of decision-makers associated with export propensity? For Portugal, the size of firm and the educational level of managers are the key determinants of export propensity. As to the UK, age and perception of costs are the key factors. In addition, we also investigated managers' commitment to exporting, for which the important determinants of export propensity in the textile and clothing sector were found to be planning, advertising and promotion. When combining the two country data-sets, particular firm characteristics, namely, firm size, competitive advantage, and technology, and a specific objective characteristic, namely, the number of languages spoken, are the key factors associated with the propensity to export in this declining sector.

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1. Introduction

In the last decades of the twentieth century, a new economy has emerged in the world. Two interconnected events are responsible for this phenomenon, the globalisation of markets, companies and activities, and the diffusion of information and communication technologies (Piscitello & Sgobbi, 2003). The technological environment has witnessed substantial and important modifications. The most important have been: new markets in the areas of telecommunications, especially the internet, the speed, quality, and efficiency of international communications and transportation (Porter, 1990); and effects on both production processes and product design and specification. Furthermore, it becomes extremely easy to acquire knowledge about doing business overseas, principally through the universities, business schools, and management training centres (Nordstrom, 1991). Also, a vast number of managers with previous experience of doing business abroad can be hired by firms (Nordstrom, 1991), and firms can obtain critical information about foreign markets (Nordstrom, 1991). Additionally, the competitive situation in highly internationalised industries has become increasingly oligopolistic (Johanson & Mattsson, 1988).

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Exporting firms are of fundamental importance for many trading nations (Barker & Kaynak, 1992). As part of the process of internationalisation, SMEs which are recognised as crucial to a nation's economic development and future wellbeing (Manolova, Edelman, & Greene, 2002; Coviello & Munro, 1995, 1997) can have an important role to play in export performance. This process can be characterized by internationalisation strategies of firms which are beneficially influenced by a variety of network relationships, and in which entry into markets can each have a different web of factors (Tayeb, 2000). However, in more advanced economies, the actors tend to have long established and stable relationships (Kinch, 1992), and for new entrants it is difficult to form links with a distributor.

Although many studies (which are discussed later) have been conducted in isolation by focusing mainly on single factors affecting the determinants of export performance, such as: export motivation, export problems, firm size and performance, and management's personal characteristics, there has been a failure to test simultaneously the full set of organisational factors against the full range of export dimensions (see Leonidou, 1998). Clearly, factor input costs, such as cheap labour, can have a strong influence on the outputs (export performance) from a particular sector. When this leads to a decline in outputs, the question arises as to how exporters can manage to survive. The motivation of this study is to identify the factors that influence export performance within a declining sector. For this reason, we examine the textile industry in Western Europe, selecting two countries for comparative purposes. The decline of traditional manufacturing industries, and their transference to other countries, particularly in the Far East due to cheaper labour, has ramifications for how European firms can attempt to compete in this global environment.

Consequently, there is an identified gap for research into export performance of SMEs in a declining sector in Portugal and the UK which, this paper attempts to address. For this purpose, we develop a testable model that is imperially tested in order to explain which factors are associated with export performance in textile and clothing sector. Simultaneously, we provide a clear understanding of the decision-makers' and firms' main characteristics that are linked to export performance in this sector. The rest of this paper is organised as follows: we discuss the relevant literature and set out the proposed research hypotheses in Section 2; we identify the study in Section 3; we discuss in Section 4 the research methodology; in Section 5, we present the results of our analysis; and finally, in Section 6, we discuss our results further and draw together our conclusions.

2. Literature review and research hypotheses

2.1. Firm characteristics

The section below reviews the literature on export propensity. The firm's and decision-makers' principal characteristics will be the focus. The firm's characteristics studied are: firm size, competitive advantages, and technology intensiveness. The decision-makers' objective characteristics studied are: decision-makers' age, level of education, and ability to speak foreign languages. As to their subjective characteristics, the key variables are: risk perception, costs and profitability. Finally, commitment to exporting will also be considered as a variable. The literature to support this choice of variable will be reviewed below.

2.1.1. Firm size

A firm's size is arguably one of the most important variables in exporting, given that a lack of size can be considered a handicap in exporting for small firms. The number of employees, level of sales and volume of firm assets are the most common indicators of size (Reid, 1982). The vast majority of the studies have measured firm size in terms of the number of employees (Cavusgil & Naor, 1987; Filatotchev, Liu, Buck, & Wright, 2009; Madsen, 1989; Majocchi, Bacchiocchi, & Mayrhofer, 2005; Suarez-Ortega & Alamo-Vera, 2005; Yang, Leone, & Alden, 1992). In this study, the definition adopted by the European Commission is used. It seems to us to be the most adequate measure, taking into account the characteristics of the textiles sector.² Firms with less than 10 employees (micro) were excluded, because they were deemed to be very small and tended to operate as family businesses. In our case firms with more than 250 employees were also excluded, because they were big enough to have characteristics that differentiated them from the group we are studying. There are a number of significant studies which found a positive relationship between a firm's size and its propensity to export (and Burton & Schlegelmilch, 1987; Czinkota & Johanson, 1983; Filatotchev et al., 2009; Majocchi et al., 2005; Reid, 1982; Suarez-Ortega & Alamo-Vera, 2005; Tookey, 1964). Thus, it is prudent to hypothesize:

H₁. Larger-sized SMEs have a higher propensity to export.

2.1.2. Competitive advantages of the product

Competitive advantage is a key factor in explaining firm's export behaviour. Competitive advantage pressurises firms to keep actively pursuing innovative activities in the home market, which eventually produces a competitive industry in world trade (Sakakibara & Porter, 2001). Therefore, we expect that competitive advantage will have a substantial impact on export behaviour, as Atuahene-Gima (1995) demonstrates in terms of the importance of competitive advantages of new products in

² We tried using the percentage of sales, but the results were not significantly different. Hence, we decided not to use them.

the export propensity of Australian firms. Product quality is undoubtedly an important factor in entering and remaining in international markets (Daniels & Robles, 1982; Kaynak & Erol, 1989). Besides the quality of the product, must be also emphasised the importance of the unique product (McGuinness, 1978), and product strength (Burton & Schlegelmilch, 1987; Cavusgil & Nevin, 1981; Madsen, 1989; McGuinness & Little, 1981; Suarez-Ortega & Alamo-Vera, 2005). Finally, product adaptation policy is a very important aspect in export marketing strategy. Therefore, it is proposed that firms with these qualities are positively related to export propensity. Thus, this provides the basis to formulate the following statement:

H₂. Firms with product quality-related competitive advantages have a higher propensity to export.

2.1.3. *Technological orientation*

Technological intensiveness is found to be consistently related to the propensity to export according to various researchers, including Aaby and Slater (1989), Cavusgil (1984) and Filatotchev et al. (2009). However, Cavusgil, Zou, and Naidu (1993) found that greater technological orientation is associated with firms being less able to adapt, not only in their product positioning in the export market, but also in their general approach to export promotion. Jones (2001) identifies high-technology firms which have impacted upon international markets at a rapid pace, stressing the importance of collaborative links in the development stages of their technologies. Yli-Renko, Autio, and Tontti (2002) argue that high-technology based new firms are better placed to enter foreign markets, and they discuss the importance of social capital, knowledge and learning in bringing international growth opportunities to successful realisation. Thus, high-technology SMEs have a potentially important role in their contribution towards export propensity and export performance. Such a role has been recognised especially through the impact of knowledge transfer pertaining to R&D and technology (Filatotchev et al., 2009). So, in the current technological environment we advance the following hypothesis:

H₃. Firms with greater technological orientation have a higher propensity to export.

2.2. *Decision-maker's characteristics*

In this section, the literature on propensity to export is further reviewed as well as the empirical studies that support it, and respective research hypotheses are proposed. The most relevant objective characteristics, which will be looked at in this study, are addressed below.

2.2.1. *Objective characteristics*

2.2.1.1. *Manager's age.* Age is arguably a determinant factor in the propensity to export. Although Suarez-Ortega and Alamo-Vera (2005) found that a manager's age was not associated with export development, Obben and Magagula (2003), by recommending a quadratic relationship between a manager's age and export propensity, demonstrate that a higher export propensity is associated with a low to medium age profile. Younger managers tend to be more risk-oriented and more associated with policies of corporate growth (Child, 1975). Exporting requires considerable energy which decision-makers have identified as being associated with younger managers (Caughey & Chetty, 1994). It may be perceived that older executives may regard career security as being important and may be less aggressive in taking on extra risks associated with exporting. Furthermore, they are more internationally minded, react more positively to a stimulus, and have more energy (Caughey & Chetty, 1994). Finally, they are more interested in higher earnings and sales than older decision-makers. Therefore, to reflect this, a hypothesis can be advanced that:

H₄. Firms employing younger managers are more likely to have a higher propensity to export.

2.2.1.2. *Educational level.* Education within the senior management group is a potentially important determinant of export performance on account of its role in the enhancement of cognitive skills and abilities which are needed in a complex international environment (Reid, 1982; Turnbull & Welham, 1985). This is particularly important for exporting/export development by SMEs (Gumede & Rasmussen, 2002; Suarez-Ortega & Alamo-Vera, 2005). Thus, we are in a position to posit the following:

H₅. Firms employing managers with a higher level of education have a higher propensity to export.

2.2.1.3. *Foreign language proficiency.* Foreign language proficiency contributes to the propensity to export in a number of ways. It facilitates social contacts, assists in understanding the ethos and business practices of a market, and improves communication to and from markets (Turnbull & Welham, 1985). Individual language skills are believed to be central to effective international marketing (Root, 1994). Obben and Magagula (2003) demonstrate that there is a very strong positive relationship between foreign language proficiency and export propensity. Also, Suarez-Ortega and Alamo-Vera (2005) found that a greater likelihood of a manager being able to speak a foreign language is linked to a higher degree of export

involvement. In dealing with export contracts in a foreign language it is important that misunderstandings are avoided, and so foreign language proficiency should be an essential requirement. Hence, we may state that:

H₆. Firms employing managers, who have a greater foreign language proficiency, have a higher propensity to export.

2.2.2. Subjective characteristics

Having considered objective managerial characteristics, the subjective managerial characteristics influencing the propensity to export are now reviewed. Despite the fact of being more difficult to measure (Hambrick & Mason, 1984), they are not necessarily less important. They are addressed below.

2.2.2.1. Propensity to take risks. Risk perception and attitude toward risk in export activities have been found to be important factors in explaining propensity to export (Cavusgil & Nevin, 1981; Obben & Magagula, 2003; Roux, 1987; Roy & Simpson, 1981). In SMEs, the decision-makers often perceive a higher risk in overseas business, due to their lack of appropriate information on unknown markets, complicated domestic and foreign trade regulations, lack of financial resources, and the absence of trained middle managers for exporting. Obben and Magagula (2003) find that managers who perceive a higher risk to be associated with export activities tend to work for SMEs that are more likely to export, so they conclude that SMEs that export can be classified as risk-takers. So, the firms which have developed into exporters are less fearful of the risks involved than firms which do not become exporters. This discussion supports the point of view that:

H₇. Firms employing managers, who acknowledge greater risks associated with exporting, have a higher propensity to export.

2.2.2.2. Perception of costs. Verwaal and Donkers (2002) establish the importance of economies of scale associated with transaction costs of exporting, which would benefit only those SMEs with a higher propensity to export. Yet, the impact of costs upon asset efficiency would seem to be not very important, for Patterson, Ruyter, and Wetzels (1999) did not find that asset efficiency is associated with a firm's determination to persist in pursuing its export activities. Nevertheless, international business is associated with increased costs, and they ought to be very much in the mind of the decision-makers when they consider internationalisation. In addition to fixed and variable costs incorporated in the product, there are the costs of shipping products, various tariffs (local taxes, for example, VAT), administrative costs (e.g. acquiring import and export licences) and sometimes physical arrangements. Thus, despite the mixed argument, we are in the position to propose that:

H₈. Firms employing managers, who perceive that exporting attracts higher costs than for domestic sales, have a lower propensity to export.

2.2.2.3. Perception of benefits. Suarez-Ortega and Alamo-Vera (2005) find that in the Spanish wine industry, the intention of SMEs to initiate exporting is positively associated with managerial perception that exporting may improve corporate performance. Specifically, in the internationalisation process the decision-maker may regard exporting as a means to obtain higher profit (Burton & Schlegelmilch, 1987; Cavusgil, 1984; Filatotchev et al., 2009; Muranda, 2003; Roy & Simpson, 1981; Witney, 1980). Yet, managers' expectations should compensate for the risks. The expectation in generating higher profits has to compensate for the greater uncertainties and risks. Internationalisation involves greater distances, more complexity and new factors (currency exchange rates). Thus, we are able to state that:

H₉. Firms employing managers, who perceive export benefits, have a higher propensity to export.

2.2.2.4. Commitment. Commitment to exporting has been heavily studied as a predictor of export initiation (Bello & Barksdale, 1986; Cavusgil, 1984; Patterson et al., 1999; Solberg & Nes, 2002; Sullivan & Bauerschmidt, 1988) and of performance (Cavusgil & Zou, 1994). It has sometimes been seen in terms of the time and effort involved in competitive pricing of industrial products (Koh, 1990). Commitment might be measured in terms of the allocation of resources, for it has been demonstrated that resources strategically impact upon export performance (Morgan & Kaleka, 2004). Prior evidence shows that there is a positive relationship between the commitment to export and the propensity to export (Bello & Barksdale, 1986; Cavusgil, 1984; Gronhaug & Lorentzen, 1982; Rosson & Ford, 1982; Suarez-Ortega & Alamo-Vera, 2005; Sullivan & Bauerschmidt, 1988). Hence, we are in the position to propose the following:

H₁₀. Firms employing managers who have higher levels of commitment have a higher propensity to export.

2.3. Conceptual model

It is posited here that the propensity to export is determined by two groups of factors: those related to the firms' characteristics, and those related to the decision-makers' characteristics.

For each group of factors, several conceptual variables are investigated. The conceptual variables studied have a strong foundation in the general export marketing literature and from informal interviews with sector exporters. Each conceptual variable is measured by multiple factors as referred to in Fig. 1.

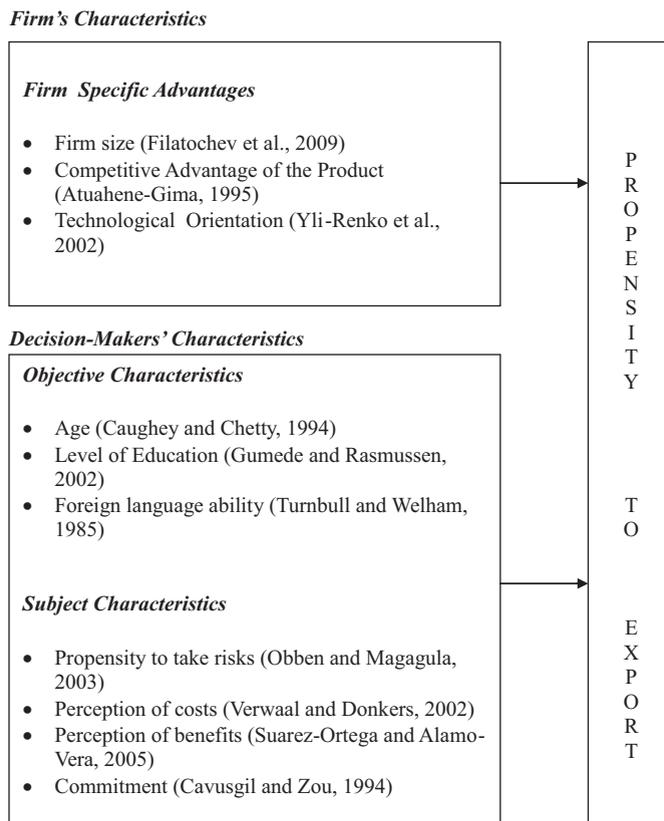
3. The textile and clothing sector in the UK and Portugal

This study selects for investigation the textile and clothing industry in Portugal and the UK. The main reasons for this are the sheer size of the industry, and the fact that exporting plays such a key role within it. Portugal is chosen because it is the biggest exporter of textiles and clothing in Europe. The UK is chosen as a comparator mainly because of its high employment rate in this sector.

3.1. Brief historic and economic perspectives

The textile and clothing industry in the UK is the 9th largest manufacturing sector. It produces almost €10 bn and employs around 380 000 people in around 40 000 enterprises. The majority of the firms in the industry are relatively small; 61% of them have a turnover below £249 000 and 60% of them have fewer than 50 employees. They are geographically concentrated in the North West, East and West Midlands, London and Central Scotland. In recent years, production has been decreasing; also the number of employees has dropped from 900 000 in 1997 to 167 000 in 2005. The number of firms has also fallen from 111 655 in 2000 to 92 087 in 2004. The UK, which is a strong country in terms of fashion, has abundant talents in design, and has a number of very well known brands. The principal exports of UK manufacturers go to EU countries, such as Germany and France. Within European countries the UK has a big competitor, Italy, whose products are relatively cheaper than UK products. Around two-thirds of imports come from outside European countries.

The textile and clothing trade is a major sector, vital to the economy of many nations of the industrialized and less developed economies. It provides foreign exchange earnings and contributes to both employment and wealth generation. Many of the small developing and less developed countries are highly dependent on the sector. The clothing and textiles industry is one of the most traditional and oldest established sectors in Portugal, originating in the 18th century. It is the



Source: Own figure

Fig. 1. Preliminary theoretical model of export propensity.

most important industry in terms of Portuguese foreign trade, representing 21% of total Portuguese exports and consequently the first responsible for the reduction of the Portuguese balance of trade. It is also a mature and fragmented sector representing a very important social variable. The industry is essentially concentrated, the highest concentrations being in Porto and Braga, followed by Castelo Branco, Lisboa and Coimbra. Finally, in the last decade, Portugal has lost its competitive advantage. It is no longer a country with low labour costs. Portugal is weak in terms of fashion and design and does not have many very well known brands with a good reputation. In terms of research and development, Portuguese firms invest very little and in addition, the relationship between universities and firms is poor.

3.2. Rationale for choosing the UK and Portugal

Portugal and the UK are also a good choice in view of other studies. Commonalities between Portugal and the UK also include macroeconomic factors, such as a common euro-currency in several of the geographical markets in which both the UK and Portugal trade, although of course UK firms trade locally in sterling. Indeed, both macro-economic and micro-economic factors have been highlighted by Katsikeas, Samiee, and Theodosiou (2006), Lages, Jap, and Griffith (2008, p. 318) surveyed export managers from Portugal. Although they mentioned that research which focuses on one country may restrict its generalisability, they nevertheless singled out Portugal as being 'similar' to other Western countries. In our research we extend beyond one country, making comparisons between Portugal and the UK. Also, Lages and Lages (2004) emphasised a commonality between the UK and Portugal in terms of the importance of exporting by both countries, but also noted cultural and related differences, such as language. However, studies on export propensity are not usually industry specific, whereas in our study we focus on a particular sector, namely, textiles and clothing. Yet, in empirical studies of export performance, it is important to control for extraneous factors, such as industry, as has been highlighted by Katsikeas, Leonidas, Leonidou, and Morgan (2000), in their wide-ranging review of empirical studies in this area. The importance of commitment to exporting, which Lages et al. (2008) stress, will be investigated as a possible key factor in improving current export performance in a declining sector. Leonidou and Katsikeas (1996) noted that much research in this field is US focused, and/or usually based on a single country, ignoring different environmental conditions.

4. Research methodology

4.1. Procedure for data collection

This study focuses on Portuguese and the United Kingdom decision-makers within small to medium sized textile and clothing firms. This avoids the problems of different degrees of autonomy, which have been highlighted in studies of affiliated companies (see for example, Taggart, 1998). For the study we have chosen the Portuguese and U.K. SME(s) textile and clothing sectors, excluding the SMEs with less than 20 employees and more than 250 employees. A mail survey was the method selected to collect the data because it should produce fewer biased responses than in face-to-face interviews (Dillman, 1978). The Portuguese population for the research was identified from Portrade 2001 (Portuguese Export and Import Companies). Correspondingly, the UK population was identified from Dun and Bradstreet's Marketplace. The firms are comparable in terms of size and industry, and actually, as we later found, also in terms of the experience of the export manager's. A random sampling procedure was the method chosen to select the Portuguese and the U.K. decision-makers who were interviewed. The preparation of the data collection instrument was guided by reviewing the relevant literature and considering feedback from the interviews. The questionnaire was developed according to the following process: primary data were obtained using a questionnaire, as the research instrument, which was sent to firms in Portugal and the United Kingdom in January 2003. Prior to this, in order to ensure the fitness of purpose, language, wording, sequence and layout of the questionnaire, three-stage piloting was adopted. The first stage involved several members of staff, experts of different scientific areas, who examined the questionnaire for difficulties, ambiguities, and face validity of the measures. Amendments to the questionnaire were made appropriately. At the second stage, a revised version was pre-tested by the original team of experts. Because the questionnaire would run in the United Kingdom and Portugal, it was deemed necessary to translate from English into Portuguese, a process carried out by the first-named author, with the help of an expert in export management and a very good understanding of the English language. At the third stage of piloting, a final pre-test was conducted with fifteen managers responsible for exporting in the UK and ten in Portugal.

The total Portuguese sample was 940 based on those that matched the required definition of SME and operating within the textile, and clothing industry. Of these 252 responded, but only 167 were eligible. Thus, the eligible response rate was $167/(940 \times 167/252) = 26.8\%$. The methodology was consistent with that recommended by the Council of American Survey Research Organisations (CASRO, 1982). The corresponding eligible response rate for the UK was $165/(900 \times 165/245) = 27.2\%$. In order to test the possibility of any potential non-response bias in the data-set, a formal extrapolation test was developed to compare the early and the late survey respondents. The cut-off point for the Portuguese survey was 115 questionnaires received in the first three weeks, and for the United Kingdom it was 111. These were tested alongside later responses for each country separately, and found to be comparable using *t*-tests. The concluding inference is that the later responses were representative of the rest of the population (see, for example Armstrong & Overton, 1977).

4.2. Measures used in the questionnaire

The measures used in the study are objective and subjective. Regarding the objective questions, firm size, export manager's age and education were each categorized at three levels as part of the questionnaire's design. Competitive advantage and technological orientation were categorized at four and five levels, respectively. By contrast, the subjective characteristics were each measured on five point Likert scales, from which the relevant choice was made by the questionnaire respondent. All the decision-makers had worked in their positions for more than three years, showing that they are aware of pertinent details and able to provide reliable information.

4.2.1. Operationalisation of the dependent variables

The problems and issues in assessing export performance are very far from being consensual. The two major issues that are critical in the evaluation of firm performance in export markets are "performance assessment" (Dess & Robinson, 1984; Venkatraman & Ramanujam, 1987) and the choice of "performance dimensions" that should be measured (Deshpande, Farley, & Webster, 1993; Szymanski, Bharadwaj, & Varadarajan, 1993). Export propensity is defined as whether or not a firm exports to foreign markets and export intensity is defined as the level of export sales in total sales (Calof, 1994; Salomon & Shaver, 2005).

Despite these problems, the most commonly used measures to evaluate the performance in overseas markets have been: (a) export sales; (b) ratio of export sales to total sales; (c) profitability in overseas markets; and (d) growth of export sales/profits. However, few studies have examined export profitability (Cavusgil, 1984; Madsen, 1989), because of the measurement problems involved and the owners of SMEs are always reluctant to give financial information. In the present work we took all these issues into consideration. We therefore chose as our emphasis the propensity to export. It is important to know how sales are shared between the national and international market. Next, it was important to know if exports increased or decreased in the last five years. In addition, the idea was to try to understand whether they will evolve by increasing or decreasing. Finally, this study was carried out over a period of five years as this was considered to be a reasonable time. This measure (export intensity) has been frequently used (Axinn, 1988; Bello & Williamson, 1985; Bilkey, 1985; Burton & Schlegelmilch, 1987). The questions regarding the propensity to export *per se* were adapted from their original versions in the works of Raposo (1994); and Hoang (1998).

4.2.2. Operationalisation of the independent variables

Questions regarding the independent variables have drawn upon the works by Hoang (1998), Joynt (1982), Morgan (1995) and Raposo (1994). With regard to firm characteristics the aim of these questions was to try to understand the profile of the firms involved in exporting. Hence, it was necessary to have an in depth knowledge about them. They are all closed questions in order to make them more operational and extensive. The question about production was phrased around seven questions, each with different formats. As to decision-makers' characteristics, the aim of this paper was to provide a clear understanding of the decision-maker and their relationship with export behaviour. Subjective decision-maker characteristics are connected to the attitude of the decision-makers. This type of question is often the most difficult to formulate (Moser & Kalton, 1972). Again, the question about commitment followed previous studies, as mentioned above.

4.3. Statistical techniques and procedures

ANOVA, multiple regression analysis and principal component analysis were the statistical techniques used to carry out the tests. Analysis of variance (ANOVA) is used to evaluate the impact of one or more independent qualitative factors upon one continuous dependent variable (Sarantakos, 1998; Suarez-Ortega & Alamo-Vera, 2005). Account is taken of variations within factor groups as well as between factor groups. One-way analysis of variance was the test carried out in eight of the nine hypotheses in the present study. However, in order to verify whether the homogeneity assumptions have been violated or not, the Levene's test for homogeneity of variances was carried out.

Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and the Bartlett test of sphericity were the two tests carried out in order to ensure the appropriateness of factor analysis. The aim of these is to check whether or not it is appropriate to use factor analysis on the data collected in this research. Latent root criterion was the method chosen to determine how many factors to be retained. The varimax orthogonal rotation was carried out in order to produce greater clarity and consequently better results. The goal of varimax rotation is to minimise the complexity of factors, but maximise the variance of factor loadings by making high loadings higher and low ones lower for each factor (Tabachnick & Fidell, 1996). In other words, and according to Kim and Mueller (1978), this means minimising the number of variables which have high loadings to enhance the interpretability of the factors, and minimising the number of factors which provides simpler interpretation of the variables.

The purpose of our principal component analysis is to explain as much of the variability in a dependent variable by an efficient choice of factor groupings. It is popular in exporting research (Bauerschmidt, Sullivan, & Gillespie, 1985; Bourantas & Halikias, 1991; Madsen, 1989; Muranda, 2003; Sharkey, Lim, & Kim, 1989; Suarez-Ortega & Alamo-Vera, 2005), and in social sciences (Bryman & Cramer, 1994; Hair, Anderson, Tatham, & Black, 2005; Hutcheson & Sofroniou, 1999). Difficulties in choosing factors have been highlighted in the literature (Churchill, 1991). One method to deal with this is the latent root criterion, which selects only the factors with latent roots or eigenvalues greater than 1 (Bryman & Cramer, 1994; Hair et al., 2005). With

regard to the commitment to exporting, the research strategy was exploratory rather than hypothesis driven. By this, we mean that many potentially important questions, addressed at the survey stage would be reduced, by means of factor analysis, to a few key factors. Appropriate labels would then be given to each factor, according to the characteristics of the members of each factor. Before the analysis was undertaken we did not know what the relevant factor groups would be: human resources, planning, public relations, advertising and promotion and decision-making.

The factors identified at the previous stage will then form the independent variables in a multiple regression to help explain export propensity. As we know, multiple regression analysis is an important statistical technique that can be used to express one dependent variable as a linear combination of several independent variables (Fleming & Nellis, 1994), from which the proportion of variability explained by the model, can be derived (Hair et al., 2005). Stepwise multiple regression will then be used to check which variables should be included in the model as the strongest predictors of export performance. In the next section, results are analysed according to both firm-based and manager-based criteria, of which the latter are decomposed into objective and subjective characteristics.

5. Results

5.1. Firm characteristics

In this section we analyse the impact of firm characteristics upon the propensity to export. Such characteristics comprise firm size, competitive advantage, and technology orientation.

5.1.1. Firm size

The first hypothesis examines the effect on the propensity to export of the size of firms, measured by the number of full-time employees. It comprises three groups. The first was made up of firms which had between 20 and 49 employees. The second group comprised firms which had numbers of employees varying from 50 to 99. Finally, the last group of firms had employees varying from 100 to 250. Analysis of variance was used to test the first hypothesis of this study: whether among

Table 1
An analysis of the impact of key factors upon export propensity.

F-statistic	F-probability	Levene's	Probability
Firm size			
Portugal	6.839	0.001	0.001
U.K.	2.038	0.134	0.152
Combined	11.064	0.000	0.311
Competitive advantage			
Portugal	1.977	0.119	0.473
U.K.	1.017	0.387	0.355
Combined	6.148	0.000	0.013
Technology			
Portugal	0.656	0.623	0.395
U.K.	0.672	0.612	0.066
Combined	3.244	0.013	0.003
Age			
Portugal	1.332	0.265	0.903
U.K.	2.659	0.073	0.001
Combined	1.300	0.274	0.918
Education			
Portugal	2.098	0.056	0.042
U.K.	1.046	0.398	0.188
Combined	1.656	0.193	0.102
Languages spoken			
Portugal	0.563	0.690	0.134
U.K.	0.708	0.619	0.092
Combined	7.915	0.000	0.044
Propensity to take risks			
Portugal	0.705	0.808	0.173
U.K.	0.679	0.819	0.551
Combined	1.714	0.182	0.293
Perception of costs			
Portugal	0.793	0.723	0.038
U.K.	1.602	0.060	0.452
Combined	1.247	0.289	0.058
Benefits			
Portugal	1.392	0.150	0.090
U.K.	0.680	0.826	0.377
Combined	1.887	0.153	0.260

decision-makers, who have responsibilities in large firms, have higher propensities to export than those who have responsibilities in smaller firms.

Does firm size affect the mean propensity to export? We see that the answer is affirmative for Portugal (as revealed in Table 1 by a very significant *F*-statistic), but not for the UK and not for the two countries combined. However, the variability of the propensities is not constant across the three sizes for Portugal (as revealed by a significant Levene's probability); and so the result for Portugal has to be treated with caution. Nevertheless, for the two countries combined the *F*-probability is very significant, and there are no significant differences in variability of propensities across sizes (see Levene's test). Thus, the overall conclusion is that size does affect export propensity for the countries combined, although we need to be aware of the individual differences mentioned. Hence, there is support for hypothesis H_1 (that larger SMEs have a higher propensity to export).

5.1.2. *Competitive advantages*

Four levels of competitive advantages were considered, using mean responses from the questionnaires on a scale from 1 to 4: weak, medium, strong and very strong. From Table 1, we find that, combining the countries, the mean competitive advantage is associated with export propensity (the *F*-probability is very significant), although not for individual countries. However, there were different variations between the four levels of competitive advantage (with a significant Levene's probability at the 95% confidence level). Hence although the *F*-test supports hypothesis H_2 (that firms with greater competitive advantage enjoy greater propensity to export), the result needs to be treated with caution.

5.1.3. *Technology orientation*

The effects of technology intensity on the propensity to export were considered next. The nature of production methods used in each firm was classified according to: highly labour intensive; labour intensive; equally split between labour intensive and automated; automated and highly automated. The combined results show that technology orientation is associated with export propensity. This leads to support for hypothesis H_3 (that firms with greater technological intensiveness have a higher propensity to export). However, there are strong variations between technology levels (see Levene's probability), and furthermore the individual countries do not show significant effects of technology orientation upon export propensity

5.2. *Decision-makers objective/subjective characteristics*

In this part we analyse the objective and subjective characteristics of decision-makers. Firstly, we begin with objective characteristics, namely, age, education, and the number of languages spoken. Secondly, we analyse the subjective characteristics of decision-makers, namely, the propensity to take risks, perception of costs, perceived benefits from exporting, and finally commitment to exporting.

5.2.1. *Objective characteristics*

5.2.1.1. Age. The first consideration was whether a decision-maker's age is a variable responsible for export propensity. The first group included the age of decision-makers who were 35 years old or less. The second group consisted of ages between 36 and 50 years old. Finally, the last group included decision-makers who were more than 50 years old. At the 95% level of confidence there was no relationship between the mean age band and export propensity (as revealed by *F* probabilities greater than 0.05). Therefore, hypothesis H_4 (that firms with younger managers have a higher propensity to export) is not supported. However, there were strong differences in the spreads across the UK age groups (see the Levene probability in Table 1).

5.2.1.2. Education. As to education (see Table 1) three levels were chosen: the first level, which included no formal qualification, O levels/GCEs, A-levels/ONC, and vocational qualification; the second level was formed by HNC/HND and degree; and the third and final level included the decision-makers with postgraduate qualifications. There were no strong associations between the mean education levels and export propensity at the 95% confidence level (as revealed by *F* probabilities greater than 0.05). The hypothesis H_5 (that firms employing managers, who have higher levels of education, have a higher propensity to export) is not supported. However, there were moderately strong differences between the education groups regarding the variances of propensities to export (see Levene's probability, which is less than 0.05).

5.2.1.3. Number of languages spoken. A similar strategy was followed for the number of languages spoken. Combining countries, there is a strong association between mean language facility and export propensity. Thus, hypothesis H_6 (that firms employing managers, who have a greater ability to speak foreign languages, have higher export propensities) is supported. Ironically, this is not the case for each country individually. Also, the differences in the variances, when combining countries, is significant at the 95% confidence level (see the Levene's test).

5.2.2. *Subjective characteristics*

5.2.2.1. Propensity to take risks. The extent to which respondents agreed that exporting attracts greater risk, measured at three levels, was also investigated. There were no significant findings (see Table 1). Hence, hypothesis H_7 (that firms

employing managers, who acknowledge greater risks associated with exporting, have higher propensities to export) is rejected. So, risk perception does not affect export propensity.

5.2.2.2. Perception of costs. Decision-makers may perceive export costs differently from costs of home sales. Responses were classified into three groups. The middle group had questionnaire responses between 2.75 and 3.25, where 3 represented neither agree nor disagree. At the 95% level of confidence the mean perception levels were not associated with export propensity. Hence, hypothesis H_8 (that firms employing managers, who perceive that exporting attracts higher costs than for domestic sales, have lower export propensities) is rejected for each country and also when combined (since the F probabilities exceeded 0.05). However, for Portugal the variances across groups were not constant (Levene's probability was less than 0.05). Nevertheless, export propensity is not generally affected by perceptions of differential export costs.

5.2.2.3. Benefits from exporting. Decision-makers were questioned regarding whether they agreed there were benefits from exporting. Three groups were created (whose middle group respondents had questionnaire scores between 2.75 and 3.25). There were no significant results regarding this variable. Hence, H_9 (that firms employing managers, who perceive export benefits, have higher export propensities) is rejected at the 95% level (see Table 1). So, surprisingly, export propensity is not affected by perceived export benefits.

5.2.2.4. Commitment to exporting. The variable for commitment can be decomposed into many sub-variables as indicated by the survey questions. It was considered important to establish if the many variables could be sensibly reduced for analytical purposes. Hence, principal component analysis was chosen as the statistical tool, selected to reduce the data. It may be recalled that hypothesis H_{10} suggested that firms employing managers with higher levels of commitment to exporting are associated with higher export propensities. But how do we measure commitment? The 17 items identified for inclusion in the process came from planning for export activities, international promotion and involvement in the export department.

5.2.2.4.1. Extraction of factors and varimax orthogonal rotation. The number of factors to be extracted can be decided according to a number of different criteria (Suarez-Ortega & Alamo-Vera, 2005; Muranda, 2003). Guttman (1982) recommends extracting only those factors which have a latent root or eigenvalue greater than one. The eigenvalue is a measure of standardized variance with a mean of 0 and a standard deviation of 1. Another criterion that could be used is constructing a screeplot, proposed by Cattell (1978), but it can be criticized because of its subjectivity (Cramer, 1998; Kline, 1997). In the present research the method chosen was that defended by Guttman (1982) based on eigenvalues greater than one. Hence, the Latent Root Criterion was the method chosen to determine the number of factors to be retained. Five factors were extracted because they have eigenvalues greater than one. These factors extracted represented 61% of the total variance explained among the variables.

After the decision was taken on how many factors to extract, an analysis was made of the Component Matrix, which is a matrix of loading or correlation between variables and factors. There are two types of variables. Pure variables are those with loading (correlation) on only one factor. Complex variables may have loading (correlation) on more than one factor, and make the interpretation of the output difficult. One factor (our staff is trained in international activities) was removed from the process to improve reliability. Kaiser–Meyer–Olkin (KMO) test and Bartlett test of sphericity (Table 2) were carried out, but now with only 17 variables. The results obtained were very satisfactory, namely, 0.753 for the KMO test (>0.5) and 0.000 for the Bartlett's test. Both of the tests supported proceeding with the chosen method of analysis.

Five factors were extracted because they have eigenvalues greater than 1. They represent 61.995% of the total variance explained among the variables. The next test to be carried out is the Latent Root Criterion that allows us to choose the five factors in an un-rotated Component Matrix (See Table 3). The matrix shows the loading of the extracted factors. In the present case there are five factors and 17 variables. The factors' loading are the correlation coefficients between the variables and the factors. Thus, the higher is the absolute value of the loading (never >1), the more the factors contribute to the variable.

The orthogonal method of rotation was used, the varimax orthogonal rotation being carried out in order to produce greater clarity and consequently better results. Ordinary rotation reduces the number of complex variables and clarifies

Table 2
A Principal component analysis of commitment to export using 17 variables.

Component	Initial eigenvalues		Extraction sums of squared loadings		Rotation sum of squared loadings	
	Total	Cumul. %	Total	Cumul. %	Total	Cumul. %
1	3.963	23.310	3.963	23.310	2.406	14.152
2	2.473	37.857	2.473	37.857	2.327	27.842
3	1.659	47.616	1.659	47.616	2.174	40.629
4	1.353	55.576	1.353	55.576	2.111	53.046
5	1.091	61.995	1.091	61.995	1.521	61.995

N.B. (a) Kaiser–Meyer–Olkin measure of sample accuracy = 0.753. (b) Bartlett's test of sphericity (chi-square significance) = 0.000.

Table 3
Rotated component matrix of commitment to export.

	1	2	3	4	5
Senior management provide planning direction	–	–	–	–	0.796
We draw upon knowledge and experience from different levels of staff	–	–	–	–	0.648
Our plans are drafted review and revised	–	0.577	–	–	–
We provide training to assist in the effectiveness of our planning for export	–	0.791	–	–	–
We use motivational incentives to encourage good planning	–	0.806	–	–	–
We allocate sufficient time to formulate our planning	–	0.702	–	–	–
Visit foreign customers	–	–	0.818	–	–
Attend international trade shows	–	–	0.786	–	–
Invite foreign client visit manufacturing	–	–	0.706	–	–
Send out catalogues	–	–	–	0.709	–
Send free samples/gifts	–	–	–	0.616	–
Offer discounts	–	–	–	0.747	–
Advertise	–	–	–	0.704	–
There are sufficient staff in export department	0.861	–	–	–	–
Sufficient time is devoted to export department	0.546	–	–	–	–
Number of employees is enough	0.814	–	–	–	–
There is a sufficient proportion export employees	0.760	–	–	–	–

N.B. Extraction method: principal component analysis of 5 factors. Rotation method: Varimax with Kaiser normalisation and rotation. Converged in 6 iterations.

interpretation. It confirmed five factors extracted on an un-rotated solution. As referred to before, 5 factors were extracted using the eigenvalues. The description of each factor is followed with the variables contained in each one, and labeled according to the nature of these variables. The values of the variables came from the questionnaire responses.

Factor 1: Human resources: The first factor was formed by 4 variables, which were: 'there are sufficient staff in the export department of our company', 'sufficient time is devoted to the export department', 'the number of employees is enough', and, finally, 'there is a sufficient proportion of export employees' (see Table 3). *Factor 2: Planning:* This factor was characterised by four variables, which were: 'our plans are drafted and then regularly reviewed and revised', 'we provide training to assist in the effectiveness of our planning for export activities', 'we use motivational incentives to encourage good planning', and 'we allocate sufficient time to formulate our planning'. *Factor 3: Public relations:* The third factor contained three variables, they were: 'visit foreign customers', 'attend international trade shows', and 'invite foreign clients to visit manufacturing'. *Factor 4: Advertising and Promotion:* This factor was made up of four variables. They were: 'send out catalogues', 'send free samples/gifts', 'offer discounts' and 'advertise'. *Factor 5: Decision-making:* The fifth and final factor was composed of two variables, which were: 'our senior management provides planning direction', and 'we draw upon knowledge and experience from different levels of staff'

5.2.2.4.2. Stepwise multiple regressions. The next stage of the research was to run stepwise multiple regressions using export performance as the dependent variable, and the five extracted factors as independent variables. Hence, and according to stepwise multiple regression, planning (Table 4) is the first variable to be accepted by the model, with advertising and promotion being the second. The other three variables were rejected because they did not meet the criteria within the stepwise methodology and were no longer included in the regression. From Table 4 we see that these two variables explain 9.2% of the variability in export performance, whilst the variable planning alone is responsible for 8.3% of the total variability in export performance.

Stepwise multiple regressions show that the strongest predictor of propensity to export is planning. Advertising and promotion enters on step 2. There are only two variables that enter into that equation. These two variables account for 9.9% of the variance in the propensity to export, but if *R*-square is adjusted for the number of variables in the model they account for 9.2% of the variance. Planning is positively related to export performance. Contrary to expectations the type of advertising and promotional activities was such that statistically they had a negative impact on export propensity. This suggests that firms with lower export propensities may perhaps invest in advertising and promotion in the hope of generating higher

Table 4
Regression models of export propensity (dependent variable).

Model	Estimates	Coef.	Std. error	t-Stat	Sig.
1	Constant	51.430	1.920	26.781	0.000
	Planning	10.020	1.924	5.209	0.000
2	Constant	51.430	1.910	26.922	0.000
	Planning	10.020	1.914	5.236	0.000
	Adv. and Prom.	–3.852	1.914	–2.013	0.045

N.B. (a) Model 1: *R*-square = 0.086, adjusted *R*-square = 0.083. (b) Model 2: *R*-square = 0.099, adjusted *R*-square = 0.092.

export propensities in the future. But this suggestion is speculative, and an issue for future studies. Nevertheless, the more significant variable is planning.

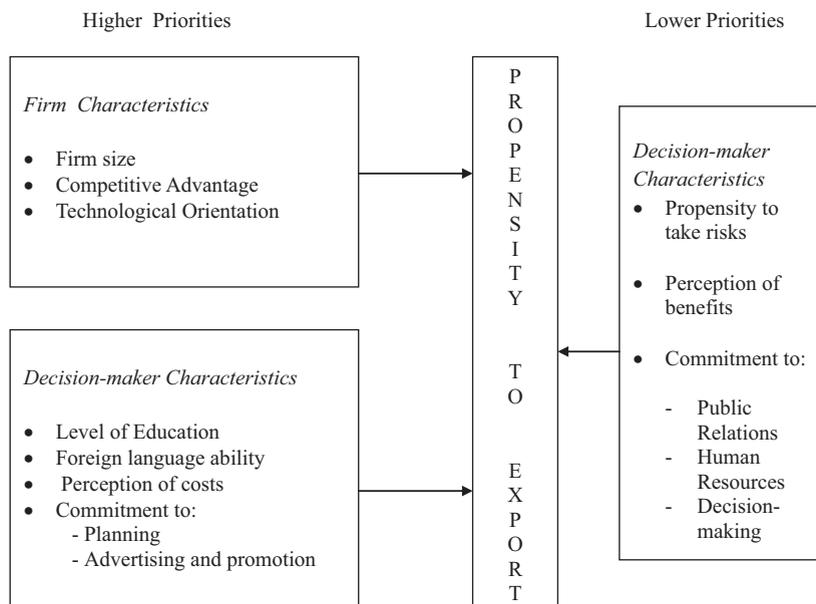
6. Discussion of the results and conclusions

This study has evaluated the determinants of internationalisation of SME(s) in the textile and clothing sector in the UK and Portugal and contributes to the literature on exporting by testing the influence of both firms' and the decision-maker's characteristics on the propensity to export in a declining sector. There are two fundamental research questions, which are: which characteristics of the firm are associated with higher export propensity; and is it possible to identify a profile of decision-makers associated with greater export propensity? There were two categories of internal determinants: firms' characteristics, and the objective and subjective decision-makers' characteristics. We need to be reminded that this study was restricted to manufacturing firms of the textile and clothing sector carried out in Portugal and United Kingdom. Excluded from the study were firms with less than 20 employees and firms with more than 250 employees.

Earlier we put forward a preliminary theoretical model of export propensity based upon the previous literature (see Fig. 1). We now propose instead a revised model, as depicted in Fig. 2. We make a distinction between higher and lower priorities for exporting in this declining sector. Higher priorities for the firm are size, competitive advantage and technology orientation. Lower priorities for managers are the propensity to take risks, the perception of benefits, and the commitment to public relations, human resources, and decision-making. By contrast the policy implications for managers are that they should give high priority to the level of education, foreign language ability, perception of costs and commitment to planning, advertising and promotion.

They should also plan to introduce more intangible factors, such as good design, and strong branding as well as utilize effective logistical operations. There is still a role for well established approaches such as the use of catalogues, free samples/gifts and discounts. But, this research clearly informs export managers to give high priority to: (i) regularly drafting plans, reviewing and revising them, (ii) providing training to assist in the effectiveness of export planning, (iii) using motivational incentives to encourage good planning, and (iv) allocating sufficient time to formulate the planning process.

Size is also a key determinant of export propensity for Portuguese SMEs, and enables larger SMEs to benefit from economies of scale, thus producing cheaper products for international markets. So, the larger SMEs have greater export propensity than smaller ones, a result supported by Filatotchev et al. (2009), Suarez-Ortega and Alamo-Vera (2005) and Majocchi et al. (2005). The greater resource-base enables them to utilise better production facilities. However, it is not just within the realm of physical production processes that economies of scale are important, because their enhanced resource base equips them better to generate greater export propensity through intangible factors, such as research and development, reflecting changing customer needs and preferences. One way of overcoming a size problem is through associations and networks that might assist in improving export propensity. Since size was less important for UK SMEs, it can be argued that the advantages of flexibility, associated with smaller organisations, are matched by the benefits from scale economies,



Source: Own figure

Fig. 2. Revised theoretical model of export propensity in a declining sector.

associated with larger organisations. But the challenge for SMEs in this sector is to generate the benefits from economies of scale associated with size, but in new directions. In the past greater size has resulted in cheaper products. In the future, however, size may be less important compared with the creation of intangible assets, such as the development of brands. The new paradigm requires the adoption of innovative strategies to create valuable intangibles to compete in a declining sector which itself is subject to fierce competition not just from Asia, but also from Africa and Eastern Europe.

Another aspect that was evaluated was competitive advantage. To this end, management might decide to specialise in niche markets, and compete with differentiated high valued products. Alternatively they may wish to shift production to benefit from lower wages. But competitive advantage was not so important to Portugal, arguably because the days had gone when, before it joined the European Union, Portugal had its own export propensity-enhancing undervalued currency. Furthermore, the technology in this sector has become of a high international standard, and so it is not likely to be a main constraint in the future. Nevertheless, it was found that having combined the data for both countries, particular firm characteristics, namely, firm size, competitive advantage and technology are seen to be key factors associated with the propensity to export. This may suggest that such factors should at least be considered as potentially important for firms in a declining sector in different international environments.

Education has a moderate impact upon export propensity in Portugal. It is possibly true to say that in Portugal the textile workers are generally of a lower educational standard than in the UK, at least until recently. But in Portugal those who are better educated may have greater drive and ambition to generate greater export propensity. Given this environment the role of education within Portuguese SMEs is seen to play a significant role. The extent to which this will be maintained in the future depends upon its success of breaking down resistance to change. Since education is a factor influencing export propensity, it is recommended that in Portugal the government in collaboration with universities and professional institutes provide better education for all workers, covering key subjects such as marketing, fashion, design and logistics.

As to the UK, age and perception of costs are the key factors. Age is a surrogate for experience in export marketing. But the question is: Why is that experience not so relevant in Portugal? It can be observed that the SMEs in Portugal are more typically family orientated, in their ownership and management, less well qualified and more traditional in work patterns, carrying wider responsibilities covering *inter alia* finance, production, marketing and logistics. As to the perception of costs, it may be inferred that the internal information systems in the UK generate clearer divisions of costs and benefits at the individual product level, enabling a clearer perception of costs, whilst in Portugal the managers focus more on the overall profitability rather than on more specific product lines. Furthermore, in the UK there is a more active policy of internationalisation, whereas in Portugal the policy is more focussed on exports. A possible reason for this difference in profile between the countries is a reflection of their different stages in the development of the textile industries in each country.

Concerning policy-makers, the Portuguese and UK governments should stimulate and support SME's internationalisation demands through a cohesive package of policy measures (see for example, Bessa & Vaz, 2007). There is a need for an integrated government approach, which should include higher education provision, favourable legislation, business support measures and export advertising. Furthermore, public export promotion administrators may find it advisable to prioritise the provision of information about foreign markets and operations. In addition further attention may be paid to the design and implementation of training programmes and export marketing education among business practitioners. The UK government, for example, could assist in projecting the UK brand overseas, which may be linked to fashion based products, such those from Italy. Finally, the development of such as a policy could be considered in the context of major programmes and general management education organised under the aegis of the EU.

Finally, as to future research, it may be wise to focus upon not only different stages in the life-cycles of firms in a declining sector, but also their particular styles of management-practices, and any differences in culture and knowledge-acquisition processes. As to future managerial strategies, export managers in a declining market might carefully consider focusing more on the establishment of new brands and, in responding to both cheap labour from competitors and an approaching maturity in life-cycle, selling fewer products at higher prices to their more prosperous customers.

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