The relationship between export assistance and performance improvement in Portuguese export ventures

An empirical test of the mediating role of pricing strategy adaptation

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Abstract

Purpose – The article aims to test how pricing strategy adaptation to the foreign market mediates the relationship between export assistance and annual export performance improvement. It also aims to consider the effects of management international experience and export market competition.

Design/methodology/approach – Structural equation modelling with WLS estimation is used to test the direct and indirect influences of the variables on short-term export performance.

Findings – Surprisingly, the findings reveal that the total effects of export assistance on annual export performance improvement are non-significant, because although export assistance has a direct positive impact on performance, there is a negative indirect impact through export pricing strategy adaptation.

Research limitations/implications – These surprising results suggest that future research is required to incorporate and test the intervening and indirect effects among variables.

Practical implications – The findings also indicate that both export assistance and short-term export performance improve with management international experience and export market competition.

Originality/value – Since both managers and public policy makers are often short-term oriented, it is urgent to develop research to better understand determinants of short-term performance as well as the antecedents of managerial and public policy resource allocation in the short term.

Keywords Exports, Pricing policy, Statistical analysis, Portugal

Paper type Research paper

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Introduction

Rich and poor countries alike look to export subsidies to enhance their presence on world markets. But they may be doing more harm than good (The Economist, 2000).

From the point of view of most national governments, exporting is extremely attractive because it allows the accumulation of foreign exchange reserves, enhances societal prosperity, and helps national industries to develop, improve productivity and create new jobs (Czinkota, 1994). All the benefits provided by the exporting activity encourage public policy makers to implement export assistance programs with the objective of helping firms improve their strategy and ultimately enhance their performance in the international arena. Literature on this topic which analyzes specifically the export assistance-export strategy-export performance interface presents conflicting evidence. While some studies indicate that export assistance has contributed to the development of successful export strategies (e.g. Denis and Depleteau, 1985; Reid, 1984), there are also some studies reporting that this support has been inadequately targeted, and has no effect in terms of performance (Gray, 1997; Seringhaus and Rosson, 1990). This explains why the most recent literature on the export assistance topic suggests that there is a strong need to develop models that incorporate intervening and indirect influences among export assistance and export performance (Gençtürk and Kotabe, 2001). In particular, recent studies on the topic (Lages, 2000a; Weaver et al., 1998) suggest that there is an increasing need to develop more policy-oriented international business research that analyzes the interface between export assistance, pricing strategy adaptation, and performance. These studies suggest that if public policy-makers provide export assistance to firms willing to adapt pricing strategies, export assistance will be well allocated because pricing strategy adaptation will lead to a better performance (Lages, 2000a; Weaver et al., 1998).

Recent changes in the global economy have made pricing strategy increasingly important for exporting marketing research and practice (Cavusgil et al., 2003). In this study we seek to help public policy makers and managers to improve their allocation of export assistance and better understand the effectiveness of firms’ export pricing strategy decisions. We are particularly interested in understanding the mediating effects of pricing strategy adaptation on the short-term relationship between export assistance and export performance. Notwithstanding the many articles published during the last four decades on the export adaptation/standardization debate, scant attention has been devoted to investigating pricing strategy adaptation/standardization (Theodosiou and Katsikeas, 2001; Theodosiou and Leonidou, 2003). The vast majority of studies have focused on the adaptation/standardization of the other aspects of an international marketing program, with pricing strategy being the aspect variable that receives least attention in export marketing research (Clark et al., 1999; Myers et al., 2002; Tzokas et al., 2000). However, understanding export pricing strategy standardization is vital because it may have a powerful and immediate effect on a firm’s performance (Stottinger, 2001). Additionally, and despite its importance for export managers, most pricing strategy research is conceptual and applied at the domestic market level (Myers, 1997; Myers et al., 2002).

This paper broadens the scope of export assistance-export performance research by addressing the export pricing strategy gap. A previous empirical study (Lages, 2000a) indicates that among all the marketing strategy aspects, pricing strategy adaptation is
the only one affected in the short term by the amount of export assistance received. Similarly, another exploratory study of British exporters (Lages and Lages, 2003) confirms this relationship by revealing a positive relationship between export support and the degree of price strategy adaptation. Another study of small and medium-sized exporting firms (Lages and Melewar, 2001) reveals that pricing strategy adaptation is negatively associated with short-term export performance satisfaction at the end of the year. However, and despite these interesting insights, the indirect effects of export assistance on short-term export performance, through pricing strategy adaptation, has never been understood and empirically tested. Collectively, this leads to an interesting question that will be answered in this empirical study: does export assistance indirectly affect short-term export performance, through export pricing strategy adaptation? If yes, how does it work?

In the first part of this paper, we develop a conceptual framework that incorporates export assistance, pricing strategy adaptation to the foreign market, and annual performance improvement. The framework is then tested via a survey of over 500 exporting managers. The results are presented and then their implications for theory are discussed. We conclude with the implications of these results for public policy making and managerial practice, and finally consider the limitations of the research and fruitful directions for future research.

Conceptual framework

Contingency theory

This paper is based on contingency theory. This theory has its early roots in general systems theory (Boulding, 1956; Von Bertalanffy, 1951) and in the behavioral theory of the firm (Cyert and March, 1963; March and Simon, 1958; Simon, 1957). During the last five decades, the contingency approach has been used in the management/business literature as an underlying topic for theory development. In brief, the key idea of the contingency approach is that performance can be improved in more than one way. However, these performance variations are not random since each way might be more or less effective depending on the situation (Zeithaml et al., 1988). Based on the contingency theory, we suggest that pricing strategy varies along a continuum from pure standardization to pure adaptation. We argue that it is more important to consider the degree of pricing strategy adaptation/standardization, while taking into consideration key contingent forces that might influence it, than to determine whether a company should adapt or standardize its strategies (Samiee and Roth, 1992).

Traditionally, empirical studies using the contingency approach tend to examine only the direct effects among the different variables. However, models that allow the analysis and testing of the complex inter-relationships among the different forces, strategy and performance may yield additional insights (Leonidou et al., 2002). Particularly, models that take into consideration the indirect effects between variables (e.g. models that analyze how the contingent forces might indirectly affect performance through the influence of these forces on pricing strategy) are likely to enrich our theoretical and empirical understanding of export performance (Gençtürk and Kotabe, 2001; Walters and Samiee, 1990).

In this paper we propose that export performance is directly affected by the degree of export assistance, the degree of pricing strategy adaptation, and by two contingent forces (management international experience and export market competition).
Additionally, it is proposed that export performance is indirectly affected by the contingent forces and export assistance through the influence exercised by these variables on pricing strategy adaptation. An overview of the conceptual framework is presented in Figure 1. The theoretical background supporting this framework will now be discussed.

Pricing strategy adaptation

The existing literature on pricing can be divided into four research streams:

1. the micro-economic literature on pricing;
2. buyers’ perceptions and reactions to pricing;
3. intra-corporate pricing; and
4. company practice in international pricing and its impact on performance (for a summary, see Myers and Cavusgil, 1996).

This paper is positioned in the fourth research stream.

The work of Cavusgil and colleagues (Cavusgil and Nevin, 1981; Myers and Cavusgil, 1996) has repeatedly suggested that the fourth stream of literature is a particularly neglected area of research and a problem area for international managers. According to Myers and Cavusgil (1996), the lack of existing research on international pricing strategies can be attributed to the complexity of pricing issues and the widespread reluctance of managers to discuss their pricing strategies. Nevertheless, researchers need to be aware that managers involved in international operations regard pricing strategy as one of their main concerns (Samiee, 1987).

Within this stream of research, the international marketing literature has explored two aspects of a pricing strategy:

1. degree of price competitiveness (e.g. Cavusgil and Zou, 1994); and
2. degree of pricing strategy adaptation/standardization (e.g. Shoham, 1999).

Figure 1.
A conceptual framework of the effects of export assistance on pricing strategy adaptation and annual export performance improvement

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In this paper we look to pricing strategy adaptation to the foreign market as a matter of degree, contingent upon the internal and external forces of the exporting firm. While following a contingent approach to pricing strategy adaptation/standardization, we investigate the extent to which pricing strategies that have been developed for the domestic market might be used when exporting. We follow this approach because the few studies that actually analyze pricing strategy adaptation/standardization in an exporting context tend to compare the strategies used by firms across various exporting markets. However, a much richer understanding of the pricing strategy phenomenon may be obtained by considering the extent to which domestic strategies may be transferred to a particular foreign market (Cavusgil and Kirpalani, 1993). In sum, we define pricing strategy adaptation as the degree to which the pricing strategies (the determination of pricing strategy, credit concessions, price discount policy and margins) for the main exported product, or line of products, differs from the domestic market to the main foreign market. This scale is influenced by Shoham’s (1999) work.

The link between export assistance and export performance improvement
Export assistance is defined in this paper as the amount of support received from three different sources (national government, European Union, and trade associations) that may enhance the exporting activity of a firm. A great challenge for researchers, public policy makers and managers is to discover how to allocate export assistance in order to obtain encouraging results. Unfortunately, previous research on export assistance tends to be of little relevance to managers and public policy makers because it tends to focus on indicators of export support (e.g. awareness, knowledge) that are of only limited use. Seringhaus (1986) identified this contemporary problem and suggested that academic research should change direction:

What researchers should determine and management wants to know, is whether or not such [export] assistance has any impact on exporting activity and to what extent such impact manifests itself (Seringhaus, 1986, p. 61).

Despite this recommendation, very little research was subsequently undertaken to address this important gap in the literature. Today, the key question remains the same as it did almost two decades ago: how should one conduct research pertinent to international marketing theory development that can be simultaneously useful for managers and public policy makers? (Czinkota, 2000). We expect with this study to contribute to a better understanding of export assistance effectiveness in the short term (i.e. a one-year period).

To do so, we analyze the impact of amount of support received on short-term export performance improvement. In line with what has been suggested in the most recent studies (e.g. Diamantopoulos and Winklhofer, 2001; Katsikeas et al., 2000) we aggregate various performance measures into a single measure of export performance. The variable “annual export performance improvement” (adapted from Katsikeas et al., 1996) assesses managers’ perceived achievement of sales (sales revenue and sales volume) and profitability from one year to the next.

Managers tend to use their own perceptions of performance, rather than objective values, in order to formulate their own decisions (Bourgeois, 1980). What might be a tremendous success for one company may be a failure for another. Improving from a
very good position in the previous year may be much more difficult than improving from a bad position. By asking managers to assess annual performance improvement we expect to capture the degree to which performance has matched managers’ aspirations for a particular year. In this way it will be possible to have as a reference the boundary line between perceived success and failure and, consequently, to capture the starting point in decision making (Greve, 1998). Furthermore, by asking managers about the annual performance improvement, they will be able to report on their perception of change from one year to the next while taking into consideration their own perception of their firm’s reference groups (including their firm’s circumstance in terms of size, industry, stage of export involvement, technology intensity, and the characteristics of the foreign market).

The contingent forces
A question that has been partially addressed by the literature (Gençtürk and Kotabe, 2001; Singer and Czinkota, 1994) but which needs further clarification is: which contingent forces influence the effectiveness of export assistance programs? Our model considers two contingent forces simultaneously:

1. management international experience; and
2. export market competition.

Management international experience refers to the degree to which the firm’s management has overseas experience, having lived or worked abroad, as well as the accumulated skills and abilities that support the achievement of the organization’s exporting objectives and goals (Cavusgil et al., 1993; Das, 1994). We have selected this force because international experience is a key organizational force in the export assistance-performance literature (Czinkota, 1994; Gençtürk and Kotabe, 2001; Singer and Czinkota, 1994) and a critical resource for implementing adaptation strategies (Cavusgil and Zou, 1994; Cavusgil et al., 1993; Douglas and Craig, 1989).

Export market competition is defined in this paper as the extent to which businesses must strive to outdo each other to gain the economic rents of that industry. Competition may vary along multiple dimensions, such as the number of competitors, price competitiveness, and service/delivery. We have included this force because it must be considered as a key determinant of pricing strategy adaptation (Douglas and Craig, 1989; Jain, 1989) and export performance (Beamish et al., 1993; Bilkey, 1982). Additionally, recent literature on export assistance (Czinkota, 1994; Demick and O’Reilly, 2000) suggests that foreign competition is a key issue that needs to be considered.

By understanding how these two contingent forces influence the relationship among export assistance, pricing strategy and performance, managers will be in a better position to choose the most appropriate export pricing strategies. Similarly, by better understanding these complex relationships, public policy makers will be in a better position to expand programs that are effective and limit programs that have little or negative impact on businesses.

Research hypotheses
The rationale behind the hypotheses exhibited in Figure 1 will now be discussed.
Determinants of export assistance

Most research tends to focus exclusively on the outcomes of export support. While raising interesting issues for practitioners, public policy makers and also theory, there is a clear research gap in terms of identifying which forces influence export assistance (Czinkota, 1994). Recent work reveals that public policy makers, when allocating their resources, tend to give priority to the most experienced firms and to the firms most able to survive in competitive markets (Demick and O'Reilly, 2000). An example is a recent program funded by the European Union, government sources and local institutions, to support the export activity of Irish firms and firms from Northern Ireland. Two of the required conditions for firms wishing to participate in this program were:

1. firms should have exporting experience; and
2. firms should have a product capable of competing in mainland Europe.

In other words, support would be provided only to strong players.

The literature also indicates that one of the major criticisms faced by public policy makers is that their resources are often poorly targeted and ineffective (Gray, 1997; Seringhaus and Rosson, 1990). Hence, they are under continuing pressure to select very carefully the firms to which they will allocate their resources. Although one could expect that managers lacking international experience may need more support from export assistance programs, it is well known that export assistance expenditures to experienced exporters are more likely to result in more exports per dollar spent. By selecting a priori firms that already have some experience in exporting, public policy makers know that the probability of obtaining better results in a shorter period will increase. Consequently, they will be more willing to allocate resources to these firms. Furthermore, managers tend to acquire more international business experience if they look for new opportunities, expand to geographically distant markets, use more sophisticated exporting operations and commit more resources to the export activity (Johansson and Vahlne, 1977). Indeed, by becoming more familiar with exporting complexity, they will also become more familiar with the different support programs and will be more capable of understanding which type of assistance is required for their specific needs. Consequently, they will be in a much better position to obtain funds than the less experienced exporters. This leads us to the first hypothesis:

H1. Management international experience is positively associated with export assistance.

From the point of view of the firm, it is expected that firms will have the need for supplementary assistance when operating in more competitive markets. From the point of view of public policy makers, it is expected that public policy makers are most willing to provide export assistance to firms operating in the most competitive markets than to the ones exporting to less competitive environments (Demick and O'Reilly, 2000). Although the less competitive markets might seem to be more attractive from the exporter’s point of view, the typical political instability and lack of confidence in many of these markets might deter public policy makers from providing funds to firms wishing to work with them. Thus, the following hypothesis will be tested in this study:

H2. The degree of export market competition is positively associated with export assistance.
Determinants of pricing strategy adaptation

At the exporting level, existing research shows that managers’ international experience clearly influences export decisions (Cavusgil and Zou, 1994; Johansson and Vahlne, 1977). Any manager will bring his/her own set of “givens” and expertise into the decision-making process (March and Simon, 1958). These managerial inputs might be adjusted to the reality of a specific organization and environment through managerial training (e.g., formal courses and export seminars). Naturally, the training process will provide the appropriate tools to help managers develop a stronger customer focus and to become more sensitive to strategy adaptation to the foreign market.

Experiential learning is particularly useful in overcoming cultural barriers. That is why the most experienced managers are also more likely to have the required expertise to make the proper adjustments to the environment (Lant and Hurley, 1999). While the understanding of key strategy issues is normally seen to be complex by less experienced managers (Cavusgil and Zou, 1994), more experienced managers tend to have a better understanding of the characteristics of the foreign markets, and are therefore in a better position to better adapt the strategy to the requirements of local markets (Douglas and Craig, 1989; Johansson and Vahlne, 1977). Hence, the following hypothesis will be tested in this paper:

**H3.** Management international experience is positively associated with pricing strategy adaptation.

Recent empirical studies (Lages, 2000a; Lages and Lages, 2003) reveal the existence of a positive relationship between export assistance and current pricing strategy adaptation in different European countries. Based on these findings, as well as on the insights provided by Weaver et al.’s work (1998), we will empirically test the relationship between export assistance and pricing strategy adaptation.

Pricing strategies may be difficult to adapt due to the need for extra financial and human resources associated with pricing strategy adaptation. Naturally, firms receiving export assistance are expected to allocate more human and financial resources to the export market venture. With this external support, managers will be in a better position to search for information and to develop a much more elaborate analysis of the environment that will help to exploit the existing opportunities in the foreign market. The support will help companies to improve the depth of planning procedures (e.g., in terms of market research and market analysis), which will allow managers to implement a pricing strategy more closely adapted to the needs of different markets (Cavusgil and Zou, 1994). This leads to the fourth hypothesis:

**H4.** Export assistance is positively associated with pricing strategy adaptation.

Competition is probably the most important external factor in a firm’s export pricing decision (Myers and Cavusgil, 1996). As emphasized by Weitz (1985), managers have to pay a great deal of attention to the impact of competition on strategy decisions. For example, managers need to identify key competitors (Clark and Montgomery, 1999) and to analyze the price strategies of these competitors in the foreign market (Cavusgil and Zou, 1994) in order to perform well. A direct comparison with other competitors allows managers to assess their firm’s competitive advantage (Day and Wensley, 1988) and to have a reference for developing a competitive pricing strategy for the different export markets. If a company opts for a standardized pricing strategy, there will
always be some competitors willing to offer what the consumer wants (Kotler, 1996). Consequently, the more intense the competition in foreign markets, the more a company will tend to adapt its pricing strategy (Buzzell, 1968; Jain, 1989; Samiee and Roth, 1992). Hence, the following hypothesis will be tested in this study:

\( H5. \) Export market competition is positively associated with pricing strategy adaptation.

Determination of export performance
Most empirical investigations have revealed a positive relationship between management international experience and export performance (e.g. Fenwick and Amine, 1979; Gray, 1997; Madsen, 1989). It is widely recognized that managers influence organizational performance (Astley and Van de Ven, 1983). The literature on organizational learning supports the view that strategy definition results from a learning process in which managerial practices are constantly updated according to past experience (Cyert and March, 1963). The more experienced managers will be in a more advanced stage of this learning process, and consequently will be in a better position to lead the firm to higher performance levels.

Research has suggested that firms employing staff with no training in international business tend to exhibit a lower performance because these managers are less aware of environmental opportunities and threats, and make frequent, costly mistakes (Nakos et al., 1998). On the other hand, managers with greater experience and expertise in international business are expected to perform better because of their international networks and better understanding of foreign markets (Axinn, 1988). Similarly, there is considerable evidence that the expertise acquired through training will help managers to improve organizational performance (e.g. Delaney and Huselid, 1996; Knoke and Kalleberg, 1994; Russell et al., 1985). By applying this rationale to our study, we propose the following:

\( H6. \) Management experience is positively associated with annual export performance improvement.

A very recent meta-analysis (Leonidou et al., 2002) revealed that there is a strong link between pricing strategy adaptation and export performance \( (p < 0.001) \). Some empirical studies (e.g. Fenwick and Amine, 1979; Madsen, 1989) have contended that to perform well firms must have a competitive exporting price. Other research has shown that export performance is positively correlated with price levels. For example, Koh’s (1991) study of US firms points out that the price level positively influences export performance (perceived relative profitability). Bilkey’s (1987) investigation of US firms indicates that export profitability increases for industrial, consumer and intermediate firms, as their products’ prices are adjusted to the foreign market. This relationship is also confirmed by Das (1994), who found that Indian firms with higher export performance (ratio of export sales to total sales) were more likely to have adapted their prices for their products in foreign markets. There is, however, evidence for the opposite effect. Two empirical studies (Lages and Melewar, 2001; Zou et al., 1997) found that pricing strategy standardization improves performance when the domestic prices are lower than average foreign market prices. Nevertheless, overall research suggests that pricing strategies need to be tailored to the foreign market because of the
pricing practices of competitors, differences in exporting costs, price controls, market structures and purchasing power, financial trade barriers, the costs of product, promotion and transportation, and margins of distribution channels (Leonidou et al., 2002). Based on this rationale, the following hypothesis is proposed:

**H7.** Pricing strategy adaptation is positively associated with annual export performance improvement.

While in some countries the lack or non-existence of governmental agencies supporting firms’ export activity has harmed that activity (Colaiacovo, 1982), in other countries the use of government export assistance has led to the rapid expansion of exports across different sectors (Brezzo and Perkal, 1983).

Recent exploratory research in the context of British exporters (Lages and Lages, 2003) found a positive relationship between export assistance and short-term export performance (both financial and strategic performance levels). Export assistance is particularly important for export performance improvement, as extra resources are required for foreign market entry and expansion (Demick and O’Reilly, 2000; Denis and Depleteau, 1985; Reid, 1984). With these extra resources firms might create or develop existing international networks or hire human resources with international expertise. Furthermore, firms may use these resources to develop plans that build upon a much more sophisticated analysis of the foreign environment. This will likely lead to fewer mistakes and improved performance.

Hence, the following hypothesis will be tested in this research:

**H8.** Export assistance is positively associated with annual export performance improvement.

The strategic imperative of a firm should be to create and sustain superior performance through a competitive advantage in the market place (Porter, 1985). Thus, from the perspective of individual firms, the most desirable and easy way to achieve competitive advantage would be to operate in a less competitive market environment. This explains why previous empirical research has found that firms operating in the less competitive markets tend to perform better. For example, Sriram and Manu (1995) found that American firms that export to developing countries have better performance than firms that export to developed countries, because of the lack of competition in less developed countries. This is in line with another study of American exporters (Bilkey, 1982) finding that the degree of competition in the industry is negatively correlated with export performance. Similarly, Beamish et al.’s (1993) investigation found that for Canadian exporters there was a negative relationship between the degree of competitiveness and export sales growth. This leads us to propose the following hypothesis:

**H9.** Export market competition is negatively associated with annual export performance improvement.

**Method**

**The research setting**

In line with previous research, the unit of analysis is a single export venture (e.g. Cavusgil and Zou, 1994; Morgan et al., 2004). We focus on the main export venture of
the firm, involving the most important product exported to the most important foreign market. This is done primarily because our exploratory interviews indicated that firms typically use the export assistance received to develop specific strategies for their main export venture. Furthermore, many secondary ventures do not benefit directly from the export assistance received and do not have defined strategies, or their strategies are defined as a consequence of the main venture. Additionally, this approach of a single product or product line exported to a single foreign market allows us to associate export assistance and pricing strategy adaptation more precisely with its antecedents and outcomes.

The research setting is the country of Portugal, a member of the European Union (EU). The EU is the world’s largest exporter of goods, maintaining a stable share of approximately one fifth of total world exports (intra-EU trade excluded) since 1990 (European Commission, 2000). As with many countries in the EU, Portugal’s economic growth depends heavily on the exporting success of its firms. Since entering the EU in 1986, the country’s export growth has boomed. From 1986 to 1991, the country’s exports increased by 9.5 percent per annum. The most recent data show that since 1993, Portuguese exports have increased by 60 percent. Collectively, these characteristics provide an ideal context for considering how export assistance relates to a firm’s export performance.

Survey instrument development
A questionnaire was developed that incorporates a variety of multi-item measures and indicators of the conceptual framework. The questionnaire was initially developed in English and then translated into Portuguese. The content and face validity of the items was assessed by four Portuguese judges (university lecturers). Each judge was asked to assess how representative each item was of the final construct. The survey was revised according to their comments. It was then given to a pre-test sample of 15 managers involved in export operations. The pre-test results were used to further refine the questionnaire. In order to avoid translation errors, the questionnaire was translated into English by a different researcher. A full listing of the final items (in English) can be found in the Appendix. The internal reliability (Cronbach, 1951) for all the scales is well over the minimum level of 0.70.

Data collection procedure
A sample of 2,500 firms was randomly generated from the government agency database of Icep-Portugal (1997). This database of 4,765 Portuguese exporters is the most comprehensive and up-to-date database available in the Portuguese market.

The data collection was conducted in the first quarter of 1999. The pre-test results indicated a strong need for an incentive to motivate the respondents to participate. One manager’s suggestion was incorporated into the data collection: respondents would be provided with a list of potential overseas importers or clients in return for a completed survey[1]. This incentive was stated in the cover letter. In the first mailing, a cover letter, a questionnaire, and an international postage-paid business reply envelope was sent to the person responsible for exporting in each of the 2,500 Portuguese firms. This missive was followed by a second mailing that included a reminder letter and a reply envelope.
Of the sample of 2,500 managers, 29 stated that they no longer exported and 119 questionnaires were returned by the mailing service. These firms had either closed down or had moved without leaving a forwarding address. Thus, the sample size was reduced to 2,352. Of these, 519 questionnaires were returned, a 22 percent response rate. This result is satisfactory, considering that the average upper management domestic survey response rate is between 15 and 20 percent (Menon et al., 1999; Lages et al., 2005). Non-response bias was tested by assessing the differences between the early and late respondents with regard to the means of all the variables (Armstrong and Overton, 1977). Early respondents were defined as the first 75 percent of the returned questionnaires, and the last 25 percent were considered to be late respondents. These proportions approximate the actual way the questionnaires were returned. No significant differences among the early and late respondents were found, suggesting that response bias was not a significant problem in the study.

**Data profile**

The whole size range of Portuguese companies is represented in the sample. However, just 7.5 percent of the companies have a sales value of over €35m, and 4.8 percent have more than 500 employees. This reflects the characteristics of Portuguese industry, which is mostly composed of SMEs, including small and medium exporters.

Exporters from all the Portuguese regions participated in the survey. The region having the greatest response is the north of Portugal (47.3 per cent), which is where the majority of Portuguese industry is situated. The average annual sales of these firms ranged in the millions from €1.5m to €5m, with 8 percent of the companies having annual sales over €35m, and 5 percent having more than 500 employees.

Over 75 percent of the respondents reported on ventures with other European countries. The USA is the first importing country outside Europe and the fifth country overall (5.6 percent). Non-European countries significantly represented in the sample are Brazil, Japan and some of the PALOP (Portuguese-speaking African) countries (Angola, Cape Verde and Mozambique). The average sales revenue of the main export venture ranged from €400,000 to €1.5m.

With respect to the MEP (main exported product), just 10 percent of the respondents reported that their MEP is sold in a single foreign market, while 70 percent sell in two to nine markets, and 20 percent sell in more than ten markets. The MEPs are exported to one or more of the following regions: European Union (90.4 percent) and other European countries (32.8 percent), Central/North America (24.5 percent), PALOP (24.1 percent) and other African countries (14.5 percent), Brazil (12.3 percent) and other South American countries (8.7 percent), Asia (15.8 percent), and Australia/Oceania (8.3 percent). When analyzing the proximity of an export market to Portugal (computed as the difference in kilometers between Lisbon, the Portuguese capital, and the capital of the exporting country), we found that on average the distance from Lisbon is 2,608 km, with the closest market being Spain (502 km) and the most distant being China/Taiwan (11,286 km).

The survey was directed to individuals who were primarily responsible for exporting operations and activities. The job title of these individuals ranged from president to marketing director, managing director, or exporting director. Of the respondents, 39.3 percent indicated that they had been responsible for the exporting operations of their firm for eight to 15 years, while 81.5 percent of the respondents...
ranged from three to 30 years of responsibility for the operations. Respondents were also asked to indicate their degree of experience in exporting on a scale where 1 = none and 5 = substantial. The mean response was 3.6 (SD = 0.84, range 1-5). Collectively, this indicates that although the title of the respondents' positions may be wide-ranging, the individuals appear to have significant knowledge in the specific exporting activities of the firm and are experienced with exporting in general.

Measurement estimation
In order to assess the validity of the measures, the items were subjected to a confirmatory factor analysis (CFA) using LISREL 8.3 (Jöreskog and Sörbom, 1993). Given the ordinal nature of the scales we have used weighted least squares (WLS)[2]. In the CFA model each item is restricted to load on its pre-specified factor. The chi-square for this model is significant ($\chi^2 = 503.34$, df = 115, $p < 0.00$). Since the chi-square statistic is sensitive to sample size, we also assess additional fit indices: the comparative fit index (CFI = 0.99), the incremental fit index (IFI = 0.99), and the Tucker-Lewis fit index (TLI = 0.99). We also assess the root mean square error of approximation (RMSEA), because high fit indices can give the false impression that the model explains much, when in reality it is the result of freeing parameters to be estimated from the data (Jap, 1999, 2001). The RMSEA measure assesses fit and incorporates a penalty for lack of parsimony, i.e. accounts for potential artificial inflation due to the estimation of many parameters. Models with an RMSEA of 0.08 or below present a satisfactory fit, while values over 0.10 should be rejected (Steiger, 1980). The RMSEA of this measurement model is 0.081.

As one can observe in the Appendix, all of the five constructs present the desirable levels of composite reliability (Bagozzi 1980). The Appendix also shows that all possible pairs of constructs passed Fornell and Larcker’s (1981) test of discriminant validity. Convergent validity was evidenced by the large and significant standardized loadings of each item on its intended construct (average loading size was 0.83).

Structural model estimation
The conceptual framework of Figure 1 is simultaneously estimated in a structural equation model using WLS estimation procedures in LISREL 8.3. Specifically, the structural model contains five constructs, 17 observable indicators, measurement and latent variable errors, and inter-correlations between the latent constructs. Despite the significant chi-square ($\chi^2 = 420.54$, df = 109, $p < 0.00$), the fit indices (CFI = 0.99, IFI = 0.99, TLI = 0.99, RMSEA = 0.074) reveal that the final structural model is fairly good in the sense of reproducing the population covariance structure, and that there is an acceptable discrepancy between the observed and predicted covariance matrices. Table I contains the WLS parameter estimates (direct, indirect and total effects) for the structural form of this model.

Consistent with $H1$, the results indicate that management international experience has a highly significant positive direct impact on export assistance ($\gamma = 0.18$, $p < 0.005$). Similarly, as predicted by $H2$, the degree of competition has a significant positive impact on export assistance ($\gamma = 0.08$, $p < 0.05$). Both $H3$ and $H4$ are also confirmed. A highly significant direct impact was found regarding the effects of management international experience ($\gamma = 0.15$, $p < 0.005$) and export assistance ($\gamma = 0.15$, $p < 0.005$) on pricing strategy adaptation. Surprisingly, the results relating
Table I. Effects of exogenous and prior endogenous constructs

<table>
<thead>
<tr>
<th>Effect of/ on</th>
<th>( \eta_1 ), Export assistance</th>
<th>( \eta_2 ), Pricing strategy adaptation</th>
<th>( \eta_3 ), Annual export performance improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \xi_1 ), Management international experience</td>
<td>( 0.18^{++} ) ( 4.84 )</td>
<td>( 0.15^{++} ) ( 3.32 )</td>
<td>( 0.18^{++} ) ( 4.84 )</td>
</tr>
<tr>
<td>( \xi_2 ), Export market competition</td>
<td>( 0.08^{+} ) ( 1.84 )</td>
<td>( -0.05 ) ( -1.10 )</td>
<td>( -0.04 ) ( -0.85 )</td>
</tr>
<tr>
<td>( \eta_1 ), Export assistance</td>
<td>( 0.15^{++} ) ( 3.96 )</td>
<td>( 0.15^{++} ) ( 3.96 )</td>
<td>( 0.09^{++} ) ( 2.45 )</td>
</tr>
<tr>
<td>( \eta_2 ), Pricing strategy adaptation</td>
<td>( -0.23^{*} ) ( 5.79 )</td>
<td>( -0.23^{*} ) ( 5.79 \</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** Values in upper rows are completely standardized estimates; values in lower rows are \( t \)-values.; \( ^{+} p < 0.05; ^{++} p < 0.01, ^{+++} p < 0.005 \) (one-tailed test); \( ^{*} p < 0.05, ^{**} p < 0.01 \) (two-tailed test); the standardized coefficients indicate how a typical variation in the independent variable leads to, or is associated with, a typical change or variation in the dependent variable (Goldberger, 1964): they give an indication of relative importance to the dependent variable.
to the direct effect of export market competition on pricing strategy adaptation \((H5)\) were found to be not statistically significant. As expected, both \(H6\) and \(H8\), relating to the positive direct impact of management’s experience \((\gamma = 0.16, p < 0.005)\) and export assistance \((\gamma = 0.09, p < 0.01)\) on export performance, are confirmed. Contrary to our original hypothesis \(H7\), we found pricing strategy adaptation \((\gamma = -0.23, p < 0.01)\) to be highly significantly inversely related to export performance. Also surprising were the findings related to \(H9\). We found that export market competition has a highly significant positive direct impact on export performance \((\gamma = 0.11, p < 0.01)\). In sum, the findings show that eight out of the nine predicted direct relationships are significant. Of these, four relationships are highly significant at the 0.005 level \((H1, H3, H4, H6)\), three relationships are highly significant at the 0.01 level \((H7, H8, H9)\), and one is significant at the 0.05 level \((H2)\). Two relationships have signs significantly contrary to those predicted \((H7, H9)\).

One of the key advantages of using a path model is the possibility of estimating not only the direct effects, but also the indirect and total effects among latent variables \(\text{(Bollen, 1989)}\). Table I shows that three out of the five possible indirect effects are statistically significant. Both the direct \((\gamma = 0.15, p < 0.005)\) and indirect \((0.03, p < 0.005)\) impact of management international experience on pricing strategy adaptation are found to be highly positively statistically significant. Consequently, the indirect relationship strengthens the total effect \((0.18, p < 0.005)\). More surprising is the fact that the total effect of public support on export performance is found to be not significant. This situation occurs because while the direct effect is highly and positively significant \((\gamma = 0.09, p < 0.01)\), the indirect effect is highly and negatively significant \((-0.03, p < 0.01)\). Finally, although the direct impact of competition on pricing strategy adaptation is not significant, the indirect impact is found to be significant \((0.01, p < 0.05)\), but the total effect is not significant.

**Discussion**

In sum, eight out of the nine predicted direct relationships are statistically significant. Two of the significant relationships have signs contrary to those that were predicted. Additionally, three out of the five possible indirect effects are significant (one sign is significantly contrary to the predicted one), and seven out of the nine possible total effects are significant (two signs are significantly contrary to those predicted). Of particular interest for our discussion are the surprising relationships and the relationships that have important implications for practice and public policy making. This leads to the analysis of:

- **(1)** determinants of export assistance;
- **(2)** determinants of pricing strategy adaptation; and
- **(3)** determinants of annual export performance improvement (see Table II).

**Determinants of export assistance**

The most important indicator of export assistance is management international experience, which is twice as important as export market competition. In other words, when allocating export support, the European Union, national government and trade associations will give greater emphasis to managerial experience than to the level of export market competition. This finding supports the work of some strategy theorists.
Determinants of \( \eta_1, \eta_2, \eta_3 \)

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Expected sign</th>
<th>Assessment</th>
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<tbody>
<tr>
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<td>( H1 )</td>
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<td>Export market competition (( \xi_2 ))</td>
<td>( H2 )</td>
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<td>Pricing strategy adaptation (( \eta_2 ))</td>
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</tr>
<tr>
<td>Management international experience (( \xi_1 ))</td>
<td>( H3 )</td>
<td>+</td>
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<tr>
<td>Export assistance (( \eta_1 ))</td>
<td>( H4 )</td>
<td>+</td>
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<tr>
<td>Export market competition (( \xi_2 ))</td>
<td>( H5 )</td>
<td>+</td>
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<tr>
<td>Annual export performance improvement (( \eta_3 ))</td>
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<tr>
<td>Management international experience (( \xi_1 ))</td>
<td>( H6 )</td>
<td>+</td>
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<tr>
<td>Pricing strategy adaptation (( \eta_2 ))</td>
<td>( H7 )</td>
<td>+</td>
</tr>
<tr>
<td>Export assistance (( \eta_1 ))</td>
<td>( H8 )</td>
<td>+</td>
</tr>
<tr>
<td>Export market competition (( \xi_2 ))</td>
<td>( H9 )</td>
<td>-</td>
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<tr>
<td>Indirect relationships</td>
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<tr>
<td>Pricing strategy adaptation (( \eta_2 ))</td>
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<tr>
<td>Management international experience (( \xi_1 ))</td>
<td>+</td>
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<td>Export market competition (( \xi_2 ))</td>
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<td>Annual export performance improvement (( \eta_3 ))</td>
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<tr>
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<td>+</td>
<td>R</td>
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<tr>
<td>Export market competition (( \xi_2 ))</td>
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<td>NS</td>
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<td>Total relationships</td>
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<td>Annual export performance improvement (( \eta_3 ))</td>
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<td>Pricing strategy adaptation (( \eta_2 ))</td>
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<td>NS</td>
</tr>
<tr>
<td>Export market competition (( \xi_2 ))</td>
<td>-</td>
<td>R</td>
</tr>
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</table>

Table II.
Summary assessment of the effects of exogenous and prior endogenous constructs

Notes: S = supported; R = refuted; NS = not significant; the signs for the expected indirect and total effects were established by implication. We assume that if all the direct relationships involved in an indirect relationship are positive, the final indirect relationship is also expected to be positive. The same principle applies to the total effects. If both direct and indirect effects are expected to be positive, the sign for the total effect is also expected to be positive.

(e.g. McGahan and Porter, 1997; Roquebert et al., 1991; Rumelt, 1991), who have stressed the importance of firm factors versus industry factors to achieve the desired performance.

Determinants of pricing strategy adaptation
Management international experience and export assistance are found to have a similar positive impact on pricing strategy adaptation. Surprisingly, competition is found not to directly influence pricing strategy adaptation. A possible explanation,
based on Bilkey’s (1984) work, is that, as with American firms, the competitive advantage of some Portuguese firms might reside in exporting price-inelastic products or in following the firm’s price-supply function rather than foreign price-demand functions.

Although export market competition does not directly influence pricing strategy adaptation, there is an indirect positive impact on pricing strategy adaptation. This indirect impact results from the fact that more export assistance is provided to firms operating in more competitive markets, which in turn leads managers to do more to adapt the pricing strategy to the foreign market. A possible interpretation of this finding is that although managers tend to offer the lowest possible prices, they are aware of the importance of properly adapting their strategy to the foreign market. Consequently, if they receive export assistance they will be tempted to use this support to overcome some of the costs associated with this adaptation and to invest in human and financial resources in order to better adapt their strategies.

**Determinants of annual export performance improvement**

As suggested by Stottinger (2001) no other marketing strategy has such a powerful and immediate effect on a firm’s performance as pricing strategy. Indeed, our results show that pricing strategy adaptation has the most important direct impact on export performance. Surprisingly, this is a strong negative effect. This raises an interesting issue: is it possible that export pricing standardization effectiveness is associated with the fact that such a large portion of the export ventures are in the EU? We believe that although over 75 percent of the ventures are within Europe, these ventures are very well split across the different European clusters (cf. Guido, 1991).

The unexpected relationship between pricing standardization and export performance has also surprised some managers. For example, according to one managing director:

The positive effect of standardizing prices is quite surprising. The various markets have different levels of buying power. Although people speak about the EU as a single market, the reality is that each national market is still a different market.

Nevertheless, our findings are in line with recent findings on Israeli (Shoham, 1999) and Colombian exporters (Zou et al., 1997). Similar to the results of those studies, the most feasible explanation for our findings is that the Portuguese market tends to have lower prices than most of the foreign markets receiving the exports. Thus, the use of a standardized pricing strategy (i.e. a strategy with prices similar to those in the domestic market) might help to penetrate the export market and improve export performance (Zou et al., 1997). This explanation is also in line with previous research that has associated a low competitive price with better performance (e.g. Madsen, 1989; Piercy, 1981; Reid, 1983).

The general manager of a seed exporting firm provides a second explanation. He suggests that this situation might occur because Portuguese exporters usually trade in US dollars for countries outside the Euro Zone. The benefits associated with the relative strength of the US dollar take some of the pressure off Portuguese exporters to increase foreign prices. Thus, the weakness of the escudo/euro versus the US dollar helps Portuguese exporters to maintain their foreign prices after penetrating a market with price levels similar to those in the domestic market.
A third explanation for this unexpected relationship is that price is normally associated with the consistency of a product’s image across markets (Buzzell, 1968). It is possible that for most products in the sample, the adaptation of the pricing strategy would worsen the desired universal image of the product, and would consequently have a negative effect on its performance. A final explanation is provided by Cavusgil and Zou (1994), who suggest that standardized strategies might sometimes be more effective because of the associated costs. Moreover, in many cases a standardized strategy might be more effective than a “wrongly” adapted strategy because many exporters may continue to base their pricing approaches simply on costs, without committing the resources necessary to obtain useful market and competition related information that might allow them to properly adapt their strategies (Cavusgil and Zou, 1994; Myers, 1997).

Our findings also reveal that while the direct effect of export assistance on export performance is positively significant, the indirect effect is highly negatively significant. The indirect effect suggests that the firms receiving more export assistance make more effort to adapt their pricing strategy, which in turn leads to a worse performance. This situation leads to a non-significant total effect of export assistance on export performance. Based on the follow-up interviews, we might conjecture that the most feasible explanation for this relationship is related to the limited amount of human resources that most Portuguese firms are willing to dedicate to exporting activity. Furthermore, a large number of exporting firms still remain as pure family businesses. Hence, managers within these firms might have a false assessment of the external environment and be incapable of implementing pricing strategy adaptation (for example in terms of the timing of implementation), and this might lead to a poor performance (Cavusgil and Zou, 1994).

Surprisingly, export market competition has a direct positive impact on export performance. A possible explanation is that the less competitive markets tend to be associated with the less developed countries (Sriram and Manu, 1995), and in these countries it is harder to achieve export success because of the economic instability in These markets (Austin, 1990). Another possible explanation, presented by a sales manager of a chocolate exporting firm, is that companies tend to relax in markets that are easier to operate in. On the other hand, in the most difficult markets companies need to react and be more committed; and, since companies that are more committed to export tend to perform better (Bilkey, 1982; Beamish et al., 1993; Cavusgil and Zou, 1994; Tookey, 1964), Portuguese companies selling to the more competitive markets present better results.

Conclusion

Implications for practice and public policy making

In addition to providing useful insights into the international marketing literature, this research can aid managers in improving their firm’s performance. Our results indicate that firms are more likely to improve their short-term performance if they have more experienced managers. Hence, companies may benefit by hiring managers with experience in international business because these managers will have established networks and a better understanding of the foreign markets.

A vital issue for managers is whether to adapt or standardize the domestic pricing strategy to the foreign market. Pricing strategy is relatively easy and faster to adapt than
the other strategies and, consequently, it is easier to identify its effects on short-term performance. Our findings indicate that pricing strategy adaptation has a negative impact on short-term performance improvement. One might argue that some managers develop pricing strategies striving for long-term effects. However, understanding pricing strategy in the short term is important because many firms are dependent on short-term performance for survival and pricing strategy has an immediate impact on performance. This is particularly true in firms that lack financial resources and those operating in markets with low margins (due to a high level of competition or market saturation).

When performance decreases from the previous year to the current year, both the internal (e.g. top management, employees, union representatives) and external (e.g. suppliers, investors, and credit institutions) publics will consider it a potential threat to the whole organization, and improvements in performance will be demanded.

In the case of Portuguese exporters, pricing strategy adaptation entails charging higher prices in the foreign market than in the domestic market. Overall, this suggests that pricing strategy standardization is particularly recommended in the short term when the domestic market price is lower than competitive prices in the foreign market, and when firms might benefit from a currency advantage to maintain the prices used for the domestic market to the foreign market.

With our findings we also expect to contribute to a better understanding of export assistance effectiveness in the short term (i.e. a one-year period). One might argue that sometimes export assistance is designed to help firms in the long term. However, as is the case with managers, public policy actions are constantly evaluated by several publics, and consequently have (dis)incentives accordingly (e.g. being or not being re-elected). If public policy makers want to remain active, they need to be concerned about short-term economic health. Particularly in times of recession, some countries look to export activity as a way to seek short-term solutions such as decreasing the nation’s budget deficit. Naturally, a decrease in a firm’s performance might put pressure on public policy makers to demand from managers a better allocation of the assistance received. The implication of all of this is that although long-term performance is crucial, if the exporting activities of the firm are not working properly in the short term, it will be extremely difficult for managers and public policy makers to focus on the future. If one considers that the long-term failures and successes of the firm are functions of its short-term actions, it is clear that understanding the impact of specific actions in the short term can yield valuable insights into improving the use of export assistance in the long term.

By better understanding how exporting firms operate, it will be easier for public policy makers to screen candidates in order to allocate short-term export assistance more effectively. This study shows that a firm’s export performance increases with both the degree of management’s international experience and the level of export market competition. Our findings also indicate that firms exporting to more competitive markets tend to perform better, suggesting that managers exporting to these markets are more alert to market opportunities and competitors’ threats, and as a result they will perform better. Hence, public policy makers know that the prospects for achieving better results in a shorter period, and consequently realizing a better allocation of their resources, will increase if they continue to allocate export assistance to the most experienced firms and to firms able to operate in the most competitive markets.
Finally, our findings reveal that the total effects of export assistance on export performance are non-significant, because although support has a direct positive impact on performance, it also has a negative indirect impact through pricing strategy. Hence, as the support provided to the export activity is aimed at bringing benefits to both governments and firms, it is reasoned that public policy makers and managers should discuss the most appropriate export assistance and how this assistance can best be applied in order to maximize its effectiveness. By better understanding the relationship among export assistance, pricing strategy adaptation and short-term performance, public policy makers can avoid being caught in a vicious cycle of successive unsatisfactory allocations of their resources. In particular, when a firm’s export performance is not satisfactory because of the strategy used for the foreign market, public policy makers should debate with managers how to break this pattern.

Limitations
This research analyzes the relationship among three main constructs:

1. export assistance;
2. pricing strategy adaptation; and
3. export performance.

Since it would be impossible to include in our model the numerous contingent forces that have been presented during the last five decades as influencing each one of the three main constructs, we selected two independent constructs – international experience and export competition – that have been debated in the international marketing literature. Nevertheless, we are aware that, as with other non-holistic studies, such an omission may lead to a degree of bias in the parameter estimates associated with the independent variables.

The second limitation is that the data incorporate only the view of the exporter (i.e. do not consider the views of public policy makers) and are not longitudinal. Although we attempt to capture the dynamics of the exporting phenomenon by focusing each question on specific time periods, thus building in a logical progression, the collected data are still cross-sectional. The third limitation is that the survey methodology may have created common method variance that could have inflated construct relationships. This could be particularly threatening if the respondents were aware of the conceptual framework of interest. However, they were not told the specific purpose of the study and some of the construct items were separated and mixed so that no respondent would be able to detect which items were affecting which factors (Lages and Jap, 2003). Hence, the biasing possibilities of common method variance should be minimized. Additionally, if common method bias exists, a CFA containing all constructs should produce a single method factor (Podsakoff and Organ, 1986; Skarmeas et al., 2002). The goodness-of-fit indices indicate a very poor fit for the single factor model, which suggests that biasing from common method variance is unlikely.

A final limitation is related to the exclusive focus on exporting firms based in Portugal. Although this may limit the generalizability of the results to some degree, countries similar to Portugal may also benefit from the findings. Portugal is particularly interesting to study, as it is an emergent EU economy that is strongly dependent on the exporting activity of its firms. Furthermore, the small size of the Portuguese domestic market leads to a strong export orientation of both Portuguese
managers and public policy makers. Nevertheless, generalizations to firms based in countries with characteristics similar to those of Portugal (e.g. emergent economies, export-oriented countries or small European countries) must be made with caution.

*Directions for further research*

This research contributes for a better understanding of export pricing strategy adaptation/standardization, one of the less researched topics in international marketing, while providing new insights into export assistance-performance relationships. We have included pricing strategy adaptation in our research model in order to determine the extent to which it mediates the relationship between export assistance and export performance.

**Pricing strategy adaptation.** As previously discussed, there is an important gap in the literature concerning the analysis of international pricing strategies. This gap is even more surprising since pricing strategy is considered to be a key issue from a managerial perspective. Based on the results presented herein, one could conjecture that annual export performance does not improve because of the manner in which firms are using the assistance to develop their pricing strategies. However, since the cost of implementing an adapted pricing strategy is not included in our model, we cannot rule out this possibility. It may be that the cost of implementing an adapted strategy outweighs the advantages of having a more adapted pricing strategy. Future research could expand on this particular issue.

Further research might also attempt to examine company pricing strategies in the foreign market following different perspectives: possibilities include exploring the antecedents and consequences of price competitiveness (see Cavusgil and Zou, 1994) and different price levels, such as the use of price premium, going-rate and discount pricing strategies (see Paun et al., 1997).

**Export assistance.** Export support may be provided in many different forms: for example, elimination of bureaucratic requirements, tax concessions, various fiscal and financial incentives, production support, assistance with technological innovation, export education and training, consular services, provision of market information and contacts abroad, the evaluation of a firm’s exporting potential, advice on export opportunities, the facilitation of trade mission market visits, support for participation of domestic firms in international trade fairs, among others. While it would be impossible to consider all the different forms of support in a single research study, it would be interesting for future research to select some of these forms of assistance and try to capture some of the issues not captured by this study. For example, future studies could try to identify how specific forms of assistance might relate to a firm’s strategy and performance, as well as which forms of assistance are available to which firms. For example, in some large countries/regions (as in the US) public policy makers may target specific industries with specific supports.

In this study, we define export assistance as the amount of support received from three different sources. This study has shown that overall export assistance received from these sources has a direct impact on both pricing strategy adaptation and export performance. Another interesting avenue for future research would be to identify how the breadth (number of different supports received from various sources) and depth of assistance (frequency of use of each support received) impacts on pricing strategy and performance.
It also seems reasonable that future research might examine the use of assistance for export market entry by new exporters, or how exporters use export assistance to enter previously unexplored markets. Finally, future research is encouraged to research whether the cost of investing in exporting has a return, namely if it outweighs the benefits achieved through firms’ export performance[3]. In sum, the export assistance-export performance topic is definitely a very rich field with immense issues to explore.

Annual export performance improvement. This paper argues that it is crucial to develop an in-depth understanding of short-term performance, more precisely of annual performance improvement. Although neglected by previous research (see Shoham, 1999; Lages and Lages, 2004 as exceptions), both managers and public policy makers consider short-term performance a top priority issue.

First, when the results of export operations improve from one year to the next, the internal and external publics are more likely to react satisfactorily, and export managers will be in a better position to request from top managers and public policy makers more resources for long-term investment in exporting. Second, if performance improves from a preceding year, firms will have more resources to develop extra actions, which will help to develop long-term results. Third, as suggested during an interview, there is a common practice of managers focusing on annual performance improvement because it is much easier to establish and quantify results annually than in the long term. Furthermore, managers consider short-term performance vital because it relates to their own personal interests. In recent years, there has been an increasing mobility of managers across firms, and top managers spend fewer years within the same organization. This might lead them to place more importance on short-term performance. Moreover, performance improvement at the end of the year might have an immediate effect in terms of personal income (e.g. salary bonus).

Finally, if one considers that long-term success in export allocation is also a result of short-term actions, public policy makers will favorably view a positive relationship between the export assistance offered and yearly performance improvements in firms receiving that support. A proper allocation of export assistance will allow public policy makers to save resources that can be used to generate reserves or can be allocated to other activities.

For the reasons stated above, we believe that much more research on short-term performance improvement and its determinants is important to theory development as well as managerial and public policy interests. Moreover, most export marketing research tends to ignore the firm’s reactive behavior, despite the fact that it may play an equal, if not greater, role as proactive behavior in the determination of current strategy (see, for example, Lages, 2000b; Lages and Jap, 2003; Lages and Montgomery, 2004) and public policy allocation of export subsidies. It is essential for international marketing researchers to start investigating the reactive behavior, and consequently using export performance as a variable on the right side of the equation (i.e. as an independent variable). It is believed this is a potentially fruitful avenue of research.

Summary
In conclusion, the increasing amount of export assistance provided to firms of rich and poor countries shows the high priority given by national and international policy makers to the encouragement of international trade. Despite this, relatively few
international marketing researchers have discussed the allocation and effectiveness of such export assistance.

Our short-term results indicate interesting and surprising features, which might well be suggestive of the potential for further surprising results when a longer horizon is examined. Findings reveal that annual performance improvement is a function of the “fit” between preceding export assistance, pricing strategy adaptation and two contingent forces (management international experience and export market competition). Although the occurrence of this “fit” might be observed in the short term, it might be true that it takes longer than a single year to observe the full impact of export assistance on the decision of adapting pricing strategies and export performance, particularly if exporting firms see this as a long-term, multi-year effort. Future research is needed to examine this possibility further.

With this research we also hope to stimulate researchers to develop future studies that analyze both the antecedents and outcomes of export assistance while considering the mediating effects of strategy variables. Most studies tend to concentrate exclusively on the analysis of the direct relationships among the elements involved in the export-marketing phenomenon. Much more empirical research is needed to focus on the analysis and understanding of the indirect relationships (Zou and Stan, 1998). The use of an advanced multivariate technique, such as SEM, is recommended to model such complex relationships (Hair et al., 1998). Our findings strongly support the argument that in addition to the analysis of direct relationships, further insights are offered by the analysis of the indirect and total effects among variables. For example, our findings reveal that while the direct effect of export assistance on short-term export performance is positive, the indirect effect is negative (the total effect became non-significant). Thus, a model using only direct effects could have supported a misleading conclusion that export assistance has a positive performance payoff. Likewise, although the direct impact of competition on pricing strategy adaptation is not significant, the indirect impact is found to be positively significant (the total effect is not significant). Hence, the insights provided by a simultaneous analysis of the direct, indirect and total effects might explain why previous research that has focused exclusively on the study of direct relationships has been inconclusive. Much more empirical research is needed to focus on the analysis and understanding of the indirect relationships.

Finally, in order to further test the relationships presented in this research, this study should be replicated with firms based in different countries. Two interesting possibilities would be to compare firms based in developed and developing countries, or to undertake a similar survey across different European countries (inside and outside the Euro Zone). It would also be useful to test the hypotheses presented in this study when comparing industries and the level of internationalization and size of the firms.

Notes
1. This list is generated using online information, mainly information available on web sites of several Chambers of Commerce, where a list of importers is normally listed by sector.
2. WLS is an asymptotically distribution free (ADF) method of estimation insensitive to the non-normality of the data. Despite being popular among other disciplines (e.g. sociology and psychology) when analyzing ordinal data, to the best of our knowledge, WLS has never been
used in international business research. Some authors (see Cui and Park, 1999; Lages, 2000a; Styles, 1998) have recently started to recognize the advantages of ADF methods when compared with non-ADF methods, such as maximum likelihood estimation (MLE). Nevertheless, the international business literature tends to use non-ADF methods (e.g. Shoham, 1999; Styles, 1998) or recommends their use (e.g. Cavusgil and Zou, 1994). This is in part understandable, as simulations carried out by Curran et al. (1996) demonstrated that a sample of at least 500 is required to use WLS. Samples larger than 500 are very difficult to obtain due to the time constraints and lack of resources usually dedicated to international business research. This situation becomes even more complex when data are collected in foreign markets, because this type of research has very high costs that academics, with typically restricted budgets, must overcome (Zou et al., 1997).

3. We acknowledge an anonymous reviewer for this comment.

References


Appendix

Please select the Main Export Venture\textsuperscript{a} of your firm, which will be the focus of this questionnaire:

a) the main export of your firm (product or group of products) in terms of sales revenue \\
b) the main importing country of your firm’s main export in terms of sales revenue \\

IMPORTANT: You have just defined the Main Export Venture, which this questionnaire is about.

\( \eta_1 \): Export assistance \((\alpha = 0.76; \rho = 0.89; \rho_{\text{varex}} = 0.74)\)

**Question:** Considering the main export venture\textsuperscript{a} over the past year (1998), how do you classify the following items?

**Scale:** 1= None; 5= Substantial
- Support from European Union
- Support from government (excluding EU support)
- Support from trade associations

\( \eta_2 \): Pricing strategy adaptation \((\alpha = 0.85; \rho = 0.90; \rho_{\text{varex}} = 0.69)\)

**Question:** Consider the main export venture\textsuperscript{a} over the past year (1998). To what extent do the following aspects differ in comparing the main export market to the domestic market?

**Scale:** 1= No Adaptation; 5= Extensive Adaptation
- Determination of pricing strategy
- Concession of credit
- Price discounts policy
- Margins

\( \eta_3 \): Annual export performance improvement \((\alpha = 0.93; \rho = 0.97; \rho_{\text{varex}} = 0.93)\)

**Question:** How well did your company achieve the following objectives for the main export venture\textsuperscript{a} from 1997 to 1998?

**Scale:** 1= Much Worse in 1998 than in 1997; 5= Much Better in 1998 than in 1997
- Export sales revenue of the main export venture
- Export sales volume (unit sales) of the main export venture
- Export profitability of the main export venture

\( \xi_1 \): Management international experience \((\alpha = 0.75; \rho = 0.84; \rho_{\text{varex}} = 0.57)\)

**Question:** Consider the people involved in your main export venture\textsuperscript{a} during the past year (1998). How would you classify their:

**Scale:** 1= None; 5= Substantial
- Degree of professional exporting experience
- Degree of overseas experience – live/work abroad
- Degree of training in international business, e.g. attended formal courses and export seminars
- Ability to follow-up on trade leads in the main importing market

\( \xi_2 \): Export market competition \((\alpha = 0.79; \rho = 0.85; \rho_{\text{varex}} = 0.66)\)

**Question:** Considering the main export venture\textsuperscript{a} over the past year (1998), how would you characterize the following aspects of the export market?

**Scale:** 1= None; 5= Substantial
- Extent of price competition in the industry
- Competition in the accomplishment of delivery deadlines
- Competition in the industry

Note: \textsuperscript{a}Main Export Venture: The main product, or group of products, exported by your company to the most important foreign market (in terms of sales revenue)