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Effects of Export Assistance on Pricing Strategy Adaptation and Export Performance

Luis Filipe Lages and David B. Montgomery

International trade is a high priority for policy makers, yet few researchers have examined the effectiveness of export assistance in improving firm performance. This study addresses that gap in a survey of 519 Portuguese exporters.

Report Summary

The increasing amount of export assistance provided to firms of rich and poor countries shows the high priority national and international policy makers give to the encouragement of international trade. Despite this, relatively few international marketing researchers have discussed the effectiveness of export assistance.

Lages and Montgomery address this gap in the research. Their study of 519 Portuguese exporters provides an empirical foundation for analyzing how export assistance affects two outcomes: first, the decision either to adapt or standardize the domestic pricing strategy for the foreign market, and second, improvement in a firm's short-term export performance.

They propose that a firm's export performance is directly affected by the amount of export assistance received and by the degree to which the firm adapts its pricing strategy to the foreign market, as well as by two contingent

forces: management's international experience and competition in the export market. Additionally, they propose that export assistance is indirectly affected by these variables through their influence on pricing adaptation.

The results include two surprising findings. First, the total effects of export assistance on short-term export performance turn out to be nonsignificant, because although export assistance had a direct positive impact on performance, it had a negative indirect impact on performance through its encouragement of pricing strategy adaptation. Second, contrary to expectations, performance improves when there are higher, not lower, levels of competition in the export market.

These and other results have important implications both for public-policy and management decision making, and they suggest several potentially fruitful avenues for further research. ■

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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), “Going Too Far in Support of Trade” (Dec. 16), p. 88.

Most national governments view exporting extremely favorably 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). Those benefits encourage public-policy makers to implement export promotion programs with the objective of helping firms to improve their competitive advantage and ultimately to enhance their performance in the international arena. Nevertheless, the literature has been presenting conflicting evidence concerning how effective export assistance is at improving performance. While some studies indicate that export assistance has contributed to the development of successful export strategies (e.g., Denis and Depelteau 1985; Reid 1984), others have reported that this support has been inadequately targeted and that it has no effect in terms of performance (Gray 1997; Seringhaus and Rosson 1990). Hence, the great challenge for researchers, public-policy makers, and managers is to discover how best to allocate the export assistance in order to obtain encouraging results.

This research addresses that question. We expect with this study to improve understanding of export assistance effectiveness in the short term (i.e., a one-year period). We choose to focus on specific pricing actions in the short term rather than the long term because many firms are dependent on short-term performance for survival. This is particularly true of firms that lack financial resources and those operating in markets with low margins. 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 consider it a potential threat to the whole organization and demand that performance improve.

One might also argue that sometimes export assistance is designed to help firms in the long term. Even when that is the case, however, those setting policy still have to worry about how their actions are being evaluated by their various publics. If they want to remain active (for example, if they want to remain in office), they need to be concerned about short-term economic health. Particularly in times of recession, some countries turn to export activity for 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 successful in the short term, it will be extremely difficult for managers and public-policy makers to focus on the future. And 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.

There is an increasing need to develop more policy-oriented international marketing research and, specifically, research that analyzes the interface between export assistance, pricing strategy, and performance. With this study we seek to help public-policy makers and managers to improve their allocation of export assistance and to understand the effectiveness of firms’ exporting pricing decisions better.

Unfortunately, most research on export assistance tends to be of little relevance to managers and public-policy makers because it tends to focus on interesting indicators of export support (e.g., awareness, knowledge) that are of only limited use. Eighteen years ago, Seringhaus

(1986) identified this 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” (p. 61).

Despite this recommendation, very little research has since been undertaken to address this important gap in the literature. Today, the key question remains the same as it did 18 years 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).

The current paper aims to address this gap in the literature and to provide an analysis of the characteristics of successful export ventures that will be of interest both to public-policy makers and managers. Given our relatively large sample (over 500 cases), we were able to use structural equation modeling (SEM) with Weighted Least Squares (WLS) (Curran, West, and Finch 1996). WLS is an asymptotically distribution-free (ADF) method of estimation that, to our knowledge, has not previously been used in international marketing research, mainly because of sample size constraints.

In the first part of this paper, we develop a conceptual framework that incorporates export assistance, adaptation of pricing strategy to the foreign market, and annual performance improvement. We test the framework via a survey of 519 exporting managers, present the results, and discuss their implications for theory, public-policy making, and managerial practice. Last, we consider the limitations of the research and fruitful directions for future research.

Conceptual Framework

This paper is based on contingency theory. This theory has its early roots in general systems theory (Bertalanffy 1951; Boulding 1956) 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. Depending on the situation, a given change in one’s process may be more or less successful at improving performance (Zeithaml, Varadarajan, and Zeithaml 1988). Based on contingency theory, we suggest that pricing strategy varies along a continuum from pure standardization to pure adaptation. We argue that companies should focus their energies on deciding the degree of adaptation or standardization to adopt—taking into consideration key contingent forces that might influence that decision—rather than debating *whether* they should adapt or standardize their strategies (Samiee and Roth 1992).

Most studies in the marketing area tend to examine only the direct effects among variables. However, studies that allow the analysis and testing of the complex interrelationships among the different forces, strategy, and performance may yield additional insights (Lages 2000a; Leonidou, Katsikeas, and Samiee 2002). The study of export performance in particular would benefit from models that take into consideration indirect effects between variables (e.g., models that analyze how contingent forces might indirectly affect performance through their influence on pricing strategy) (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 received, the degree to which pricing strategy is adapted to the foreign market, and by two contingent forces: management’s international experience and competition in the export market. Additionally, we propose that export performance is indirectly affected by the contingent forces and by export assistance through the influence exercised by these variables on pricing adaptation.

Export assistance

Export assistance is defined in this paper as the amount of support received from three sources (the company's national government, the European Union, and trade associations) that may enhance the company's exporting activity. As mentioned above, the most recent literature on export assistance suggests that there is a strong need to develop models that examine intervening and indirect influences that contribute to export assistance's effect on export performance (Gençtürk and Kotabe 2001). Indeed, a recent study (Weaver, Berkowitz, and Davies 1998) suggests that when public-policy makers allocate export assistance to firms that are willing to adapt their pricing strategies, the assistance is well allocated because pricing adaptation leads to better performance. However, this indirect effect has not been empirically tested. These studies raise an interesting question that we hope to answer: Does export assistance indirectly affect performance through its influence on export pricing strategy adaptation? If yes, how?

Pricing strategy adaptation

The existing literature on pricing can be divided into four research streams: (1) microeconomic literature on pricing, (2) buyers' perceptions and reactions to pricing, (3) intracorporate pricing, and (4) international pricing and its impact on performance (see Myers and Cavusgil 1996 for a review of literature in this fourth stream). This paper is positioned in the fourth research stream.

The work of Cavusgil and his 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: degree of price competitiveness (e.g., Cavusgil and Zou 1994) and degree of pricing adaptation or standardization (e.g., Shoham 1999). In our research, we take a contingent approach to pricing adaptation or standardization and investigate the extent to which pricing strategies that have been developed for the domestic market can be used in a target export market. Until now, the few studies that actually analyze pricing adaptation in an exporting context tend to compare the strategies used by firms across various exporting markets. However, we believe that one may obtain a much richer understanding of the pricing phenomenon 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 domestic- and export-market pricing strategy (including such elements as credit concessions, price discount policy, and margins) for a product differ. This scale was influenced by Shoham's (1999) work.

We will look at the degree to which the exporting firm adapts its pricing strategy to the foreign market, contingent upon internal and external forces acting on the firm. In this study we focus on pricing strategy adaptation as opposed to some other form of adaptation because pricing strategy is visible and can be relatively easily and quickly adapted to the foreign market. Consequently, it is easier to analyze its interface with export assistance and to identify its effects on performance over the short term.

Annual export performance improvement

In line with what has been suggested in recent studies (e.g., Diamantopoulos and Winklhofer 2001; Katsikeas, Leonidou, and Morgan 2000) we aggregate various performance measures into a single measure of export performance. This variable, annual export performance improvement, assesses managers' perceived achievement of sales targets (both revenue and volume) and profitability from one year to the

next. This scale was adapted from the work of Katsikeas, Piercy, and Ionnidis (1996).

In the export performance literature there is no established definition of performance. This may be because managers tend to use their own perceptions of performance, rather than objective benchmarks, in assessments and in making decisions (Bourgeois 1980). What might rate as a tremendous success for one company might indicate failure for another; similarly, 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 we will have the boundary line between perceived success and failure as a reference point and, consequently, we will be able to capture the starting point in decision making (Greve 1998). Furthermore, because we will be asking managers about annual performance improvement, they will be able to report on their perception of change from one year to the next while taking into consideration factors that they consider relevant, such as their firm's size, industry, degree 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: management's international experience and competition in the export market.

Management's international experience refers to experience in other countries, which managers gain by having lived or worked abroad, as well as to the accumulated skills and abilities that support the achievement of the organization's exporting objectives and goals (Cavusgil, Zou, and Naidu 1993; Das 1994). We have

selected this force because international experience is very important in the literature on the relation between export assistance and performance (Czinkota 1994; Gençtürk and Kotabe 2001; Singer and Czinkota 1994), and it is a critical resource for implementing adaptation strategies (Cavusgil and Zou 1994; Cavusgil, Zou, and Naidu 1993; Douglas and Craig 1989).

Competition in the export market is defined in this paper as the extent to which businesses must strive to outdo one another to gain the economic rents of that market. Competition may vary along multiple dimensions, including number of competitors, price competitiveness, and service and delivery. We have included this force because it is a key determinant of pricing strategy adaptation (Douglas and Craig 1989; Jain 1989) and export performance (Beamish, Craig, and McLellan 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 how export assistance, pricing strategy, and performance interrelate, 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 eliminate programs that have little or negative impact on businesses.

Research Hypotheses

Our eight research hypotheses are discussed below and summarized in Figure 1 (page 76).

Determinants of export assistance

Most research tends to focus exclusively on the outcomes of export support. Although that approach raises interesting issues for practitioners, public-policy makers, and theorists, it leaves a clear research gap when it comes to

identifying which forces influence export assistance (Czinkota 1994). Demick and O'Reilly's (2000) 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. 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 that they have exporting experience and that they 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 public-policy makers face 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 it would seem that managers lacking international experience would be the ones in need of greater 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 firms that already have some experience in exporting, public-policy makers know they are increasing the probability that their investment will pay off more quickly. For their part, managers who already have experience in exporting are more familiar with its complexity and with the different support programs that are available to them. They are more capable of understanding which type of assistance is best suited for their specific needs. Consequently, they are in a much better position to obtain funds than the less experienced exporters. This leads us to the first hypothesis:

H1: Management's international experience is positively associated with export assistance.

We can expect firms to have a greater need for supplementary assistance when they are oper-

ating in more competitive markets, and we can expect public-policy makers to be most willing to provide export assistance precisely to those firms that are operating in the most competitive markets, rather than to those exporting to less competitive environments, such as developing countries (Demick and O'Reilly 2000). Although one might think that the less competitive markets would be more attractive from the exporter's point of view, the typical political instability and lack of confidence in many of these markets tends to deter public-policy makers from providing funds to firms wishing to work in these markets. Thus, we hypothesize:

H2: The degree of export market competition is positively associated with export assistance.

Determinants of pricing strategy adaptation

Existing research shows that managers' international experience clearly influences export decisions (Cavusgil and Zou 1994; Johanson and Vahlne 1977). Any manager will bring his or her own set of "givens" and expertise into the decision-making process (March and Simon 1958). These managerial inputs can be adjusted to the reality of a specific organization and environment through managerial training (e.g., through formal courses and export seminars). A good training process will provide the appropriate tools to help managers develop a stronger customer focus and to become more sensitive to how to adapt prices 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 expertise necessary for making the proper adjustments to the environment (Lant and Hurley 1999). While less experienced managers tend to find it daunting to contemplate the key strategy issues (Cavusgil and Zou 1994), more experienced managers tend to have a better understanding of the characteristics of foreign markets and are therefore in a better position to adapt their strategy to the requirements of those markets successfully (Douglas

and Craig 1989; Johanson and Vahlne 1977). Hence, we hypothesize:

H3: Management's international experience is positively associated with pricing adaptation.

Based on an indication provided in a recent work (Weaver, Berkowitz, and Davies 1998), we will empirically test the relationship between export assistance and adaptation of pricing strategy. It can be difficult to adapt pricing strategies because doing so requires extra financial and human resources. Naturally, firms receiving export assistance can be expected to allocate more human and financial resources to the export market venture. With this external support, managers are in a better position to search for information and to develop a much more elaborate analysis of the environment that will help them exploit the existing opportunities in the foreign market. By giving companies the resources to improve the depth of their planning (in terms of market research and market analysis), export assistance allows managers to implement pricing strategies that are 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 adaptation.

Competition is probably the most important external factor in the firm's export pricing decision (Myers and Cavusgil 1996). As emphasized by Weitz (1985), managers have to pay a great deal of attention to competition when making 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 competitors allows managers to assess their firm's competitive advantage (Day and Wensley 1988) and gives managers a reference for developing a competitive pricing strategy for the different export markets. If a company opts for a stan-

dardized pricing strategy, they will be vulnerable to those competitors who are 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). We therefore hypothesize:

H5: Export market competition is positively associated with pricing adaptation.

Determinants of export performance

Most empirical investigations have revealed a positive relationship between management's 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). Managers with more experience will be at a more advanced stage in 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; they therefore make frequent, costly mistakes (Nakos, Brouthers, and Brouthers 1998). 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, Terborg, and Powers 1985). By applying this rationale to our study, we propose the following:

H6: Management's international experience is positively associated with annual export performance improvement.

A recent meta-analysis (Leonidou, Katsikeas, and Samiee 2002) revealed that there is a strong link between pricing adaptation and export performance ($p < .001$). While 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 study (1991) of U.S. firms points out that the price level positively influences export performance (perceived relative profitability). Bilkey's (1987) investigation of U.S. 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 products' prices for the foreign markets.

There is, however, also evidence for the opposite effect. Two empirical studies (Lages and Melewar 2001; Zou, Andrus, and Norvell 1997) found that price standardization improves performance when the domestic prices are lower than the 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, Katsikeas, and Samiee 2002). We therefore hypothesize:

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

In some countries there is no governmental support for export activity, and exporting firms

have suffered from that lack of support (Colaiacono 1982), but in other countries governmental export assistance has led to the rapid expansion of exports across different sectors (Brezzo and Perkal 1983). With the extra resources made available through export assistance, firms can create or develop existing international networks or hire people with international expertise. Firms may also use export assistance to develop plans that build upon a much more sophisticated analysis of the foreign environment, which in turn will cut down on mistakes and will improve performance. We therefore hypothesize:

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 marketplace (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 U.S. firms that export to developing countries have better performance than firms that export to developed countries and concluded that this was because of the lack of competition in less developed countries. This is in line with another study of U.S. exporters (Bilkey 1982), which found that the degree of competition in the industry is negatively correlated with export performance. Similarly, Beamish, Craig, and McLellan'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

Research setting

We took the main export venture of the firm—that is, the most important product exported to the most important foreign market—as our unit of analysis. This was done primarily because our exploratory interviews indicated that firms typically use the export assistance they receive to develop specific strategies for their main export venture. Many secondary ventures do not benefit directly from the export assistance; firms do not develop particular strategies for them, or if they do, those strategies are determined by the strategies defined for the main venture. Additionally, focusing on 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 (Eurostat 2000). As is true for many countries in the EU, Portugal's economic growth depends heavily on the exporting success of its firms. Collectively, these characteristics provide an ideal context for considering how export assistance relates to a firm's export performance.

Survey instrument development

We developed a questionnaire that incorporated a variety of multi-item measures and indicators of the conceptual framework. The questionnaire was initially developed in English and was then translated into Portuguese. The content and face validity of the items were assessed by four Portuguese judges (university lecturers); we asked each judge to assess how representative each item was of the final construct. We then revised the survey according to their comments. Next we had a pretest sample of fifteen managers involved in export operations answer the questionnaire. The pretest results were used to

refine the questionnaire further. A full listing of the questionnaire items (in English) can be found in Appendix A. The internal reliability (Cronbach 1951) for all the scales is well over the minimum level of .70. Appendix B provides an overview of the means, standard deviations, and the correlation matrix among the final items.

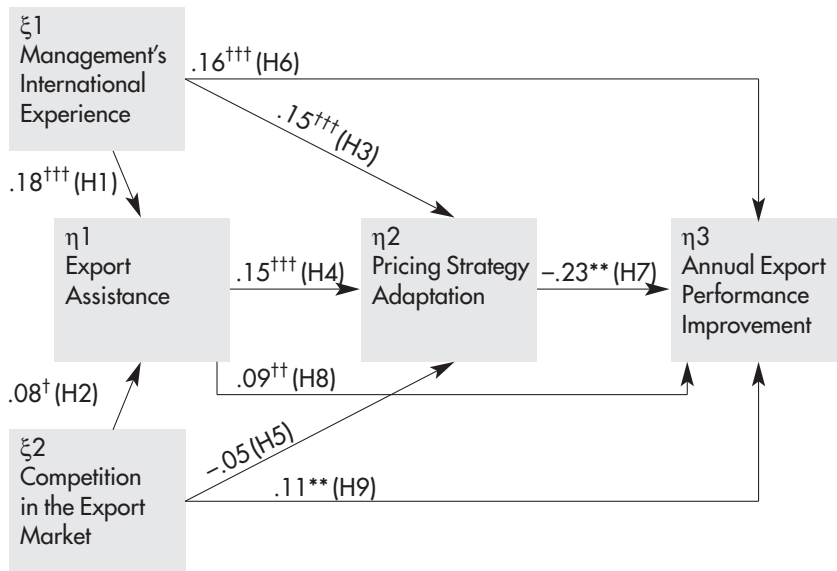
Data collection procedure

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 pretest 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. 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 were 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% response rate. This result is satisfactory, considering that the average upper-management domestic survey response rate is between 15 and 20% (Menon et al. 1999). Nonresponse bias was tested by assessing the differences between the early and late respondents in terms of the means of all the variables (Armstrong and Overton 1977). Early respondents were defined as the first 75% of the returned questionnaires; the last 25% were

Figure 1
Direct Effects of Exogenous and Prior Endogenous Constructs



Values are completely standardized estimates.
† $p < .05$, †† $p < .01$, ††† $p < .005$ (one-tailed test) / ** $p < .01$ (two-tailed test)

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 Portuguese exporting industry is primarily composed of small to mid-sized enterprises. Exporters from all the Portuguese regions participated in the survey. The average annual sales of these firms ranged from US\$1.4 million to US\$4.6 million (or €1.5 million - €5 million), with 8% of the companies having annual sales over US\$32.2 million (€35 million). Over 75% of the respondents reported on ventures with other European countries, while the remainder occurred with the United States and other non-European countries. The average sales revenue of the main export venture ranged from US\$370,000 to US\$1.4 million (€400,000 - €1.5 million).

The survey was directed to individuals who had primary responsibility for exporting operations

and activities. The job titles of these individuals varied and included president, marketing director, managing director, or exporting director. Of the respondents, 39.3% indicated that they had been responsible for the exporting operations of their firm for 8 to 15 years, while 81.5% of the respondents fell in the 3- to 30-year range. Respondents were also asked to indicate their degree of experience in exporting on a 5-point scale for which 1 = none and 5 = substantial. The mean response was 3.6 (sd = .84, range 1-5). Collectively, this indicates that although the respondents held various titles, they all appear to have had significant knowledge of the specific exporting activities of the firm and were all experienced with exporting in general.

Model fit criteria

The conceptual framework shown in Figure 1 was simultaneously estimated in a structural equation model in LISREL 8.3 (Jöreskog and Sörbom 1993). Given the ordinal nature of the scales, we tested the proposed hypotheses using Weighted Least Squares (WLS).¹ The final structural model revealed discriminant, convergent, and nomological validity.

Specifically, the structural model contains 5 constructs, 17 observable indicators, measurement, and latent variable errors, and intercorrelations between the latent constructs. As one can observe in Appendix A, all 5 constructs had satisfactory levels of composite reliability (Bagozzi 1980). Appendix A 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 .83). Nomological validity refers to the validity of the entire model. The final model has a chi-square of 420.54 (df = 109, $p < .00$). Since the chi-square statistic is sensitive to sample size, we also assessed additional fit indices: the Comparative Fit Index (CFI), the Incremental Fit Index (IFI), and the Tucker-Lewis Fit Index (TLI). The CFI, IFI, and TLI of this model were .99, .99, and .99, respectively. This reveals that the final model was fairly good at repro-

Table 1
Direct, Indirect, and Total Effects of Exogenous and Prior Endogenous Constructs

Effect of/on	η1 Export Assistance			η2 Pricing Strategy Adaptation			η3 Annual Export Performance Improvement		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
ξ1 Management's International Experience	.18 ⁺⁺⁺ 4.84 (H1)		.18 ⁺⁺⁺ 4.84	.15 ⁺⁺⁺ 3.32 (H3)	.03 ⁺⁺⁺ 3.39	.18 ⁺⁺⁺ 3.96	.16 ⁺⁺⁺ 4.31 (H6)	-.02 -1.71	.14 ⁺⁺⁺ 3.84
ξ2 Export Market Competition	.08 [†] 1.84 (H2)		.08 [†] 1.84	-.05 -1.10 (H5)	.01 [†] 1.65	-.04 -.85	.11 ^{**} 2.73 (H9)	.01 1.43	.12 ^{**} 3.15
η1 Export Assistance				.15 ⁺⁺⁺ 3.96 (H4)		.15 ⁺⁺⁺ 3.96	.09 ^{††} 2.45 (H8)	-.03 ^{**} -3.22	.06 1.52
η2 Pricing Strategy Adaptation							-.23 ^{**} -5.79 (H7)		-.23 ^{**} -5.79

Values in upper rows are completely standardized estimates. Values in lower rows are *t*-values.

[†] $p < .05$, ^{††} $p < .01$, ⁺⁺⁺ $p < .005$ (one-tailed test) / * $p < .05$, ** $p < .01$ (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.

ducing the population covariance structure and that there was an acceptable discrepancy between the observed and predicted covariance matrices.

Structural model parameter estimates

Table 1 provides the WLS estimates for all the direct, indirect, and total effects.

Consistent with H1, the results indicate that management's international experience has a highly significant positive direct impact on export assistance ($\gamma = .18, p < .005$). Similarly, as predicted by H2, the degree of competition has a significant positive impact on export assistance ($\gamma = .08, p < .05$). Both H3 and H4 are also confirmed. A highly significant direct impact was found for the effects of management's international experience ($\gamma = .15, p < .005$) and export assistance ($\beta = .15, p < .005$) on pricing adaptation. Surprisingly, the direct effect of

export market competition on pricing adaptation (H5) were found to be not statistically significant. As expected, both H6 and H8, relating to the positive direct impact of management's international experience ($\gamma = .16, p < .005$) and export assistance ($\beta = .09, p < .01$), respectively, on export performance, are confirmed. Contrary to H7, we found pricing adaptation ($\beta = -.23, p < .01$) 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 ($\gamma = .11, p < .01$). 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 .005 level (H1, H3, H4, H6), three relationships are highly significant at the .01 level (H7, H8, H9), and one is significant at the .05 level

Table 2

Summary Assessment of the Effects of Exogenous and Prior Endogenous Constructs

Determinants of η_1, η_2, η_3	Hypothesis	Expected Sign*	Assessment
Direct Relationships			
Export assistance (η_1)			
■ Management's international experience (ξ_1)	H1	+	S
■ Export market competition (ξ_2)	H2	+	S
Pricing strategy adaptation (η_2)			
■ Management's international experience (ξ_1)	H3	+	S
■ Export assistance (η_1)	H4	+	S
■ Export market competition (ξ_2)	H5	+	NS
Annual export performance improvement (η_3)			
■ Management's international experience (ξ_1)	H6	+	S
■ Pricing strategy adaptation (η_2)	H7	+	R
■ Export assistance (η_1)	H8	+	S
■ Export market competition (ξ_2)	H9	-	R
Indirect Relationships			
Pricing strategy adaptation (η_2)			
■ Management's international experience (ξ_1)		+	S
■ Export market competition (ξ_2)		+	S
Annual export performance improvement (η_3)			
■ Management's international experience (ξ_1)		+	NS
■ Export assistance (η_1)		+	R
■ Export market competition (ξ_2)		+	NS
Total Relationships			
Export assistance (η_1)			
■ Management's international experience (ξ_1)		+	S
■ Export market competition (ξ_2)		+	S
Pricing strategy adaptation (η_2)			
■ Management's international experience (ξ_1)		+	S
■ Export assistance (η_1)		+	S
■ Export market competition (ξ_2)		+	NS
Annual export performance improvement (η_3)			
■ Management's international experience (ξ_1)		+	S
■ Pricing strategy adaptation (η_2)		+	R
■ Export assistance (η_1)		+	NS
■ Export market competition (ξ_2)		-	R

Notations: 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 can also be 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.

(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 (Bollen 1989). Table 1 shows that three out of the five possible indirect effects are statistically significant. Both the direct ($\gamma = .15, p < .005$) and indirect ($.03, p < .005$) impact that management's international experience has on pricing adaptation are found to be highly positively statistically significant. Consequently, the indirect relationship strengthens the total effect ($.18, p < .005$). More surprising is the fact that the total effect of public support on export performance is found to be not significant. This comes about because while the direct effect is highly and positively significant ($\gamma = .09, p < .01$), the indirect effect is highly and negatively significant ($-.03, p < .01$). Finally, although the direct impact of competition on pricing adaptation is not significant, the indirect impact is found to be significant ($.01, p < .05$), but the total effect is insignificant.

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 what was predicted), 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 2).

Determinants of export assistance

The most important indicator of export assistance is management's international experience, which is twice as important as export market competition. In other words, when allocating export support, the European Union, Portugal's national government, and trade associations placed greater emphasis on managerial experience than on the level of export market competition. This finding supports the work of some strategy theorists (e.g., McGahan and Porter 1997; Roquebert, Philips, and Westfall 1996; Rumelt 1991), who have stressed the importance of company factors over industry factors when it comes to boosting performance.

Determinants of pricing strategy adaptation

Management's international experience and export assistance are found to have a similar positive impact on pricing adaptation. Surprisingly, competition is found to have no direct influence on pricing adaptation. A possible explanation, based on Bilkey's (1984) work, is that, as with U.S. firms, some Portuguese firms' competitive advantage might lie 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 adaptation, there is an indirect positive impact on pricing adaptation. This indirect impact results from the fact that more export assistance is provided to firms operating in more competitive markets. A possible interpretation of this finding is that if managers receive export assistance, they will be tempted to use this support to overcome some of the costs associated with pricing strategy adaptation and to invest in human and financial resources in order to better adapt their strategies.

Determinants of annual export performance improvement

Our results show that pricing adaptation has the most important direct impact on export performance. Surprisingly, this is a strong negative effect. This unexpected relationship has also sur-

prised 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 in studies of Israeli (Shoham 1999) and Colombian exporters (Zou, Andrus, and Norvell 1997). The most feasible explanation for our findings, as with the findings of those studies, is that the home market of the exporters (in our case, Portugal) tends to have lower prices than most of the foreign markets receiving the exports. Thus, the use of a standardized price strategy—that is, a strategy with prices similar to those in the domestic market—might help exporters to penetrate the foreign market and improve export performance (Zou, Andrus, and Norvell 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 U.S. dollars in countries outside the euro zone. The benefits associated with the relative strength of the U.S. dollar take some of the pressure off Portuguese exporters to increase foreign prices. Thus, the weakness of the escudo/euro in comparison with the U.S. dollar helps Portuguese exporters maintain their prices in a foreign market after penetrating it with price levels similar to those in the domestic market.

A third explanation for this unexpected relationship is that price is normally associated with a product’s image across markets (Buzzell 1968). It is possible that for most products in the sample, adapting 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 they cost less to implement than individualized strategies.

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. This negative indirect effect suggests that the firms receiving more export assistance make more effort to adapt their prices, 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 human resources that most Portuguese firms are willing to dedicate to exporting activity.

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 economic instability (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, whereas in the most difficult markets, companies need to react more quickly and be more committed. Companies that are more committed tend to perform better (Beamish, Craig, and McLellan 1993; Bilkey 1982; Cavusgil and Zou 1994; Tookey 1964), and therefore companies selling in the more competitive markets present better results.

Implications for practice and public-policy making

In addition to providing useful insights into the international marketing literature, this research can help managers improve 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: These managers will have established networks and a better understanding of foreign markets.

A vital issue for managers is whether to standardize the domestic pricing strategy across markets or to adapt it to the foreign market. Price can be altered quickly and relatively easily; consequently, it is relatively easy to identify its effects on short-term performance. Our findings indicate that price adaptation has a negative impact on performance. In our study of Portuguese exporters, adaptation of price generally meant charging higher prices in the foreign market than in the domestic market. Our findings suggest that price standardization is particularly recommended when the domestic market price is lower than competitive prices in the foreign market and when firms might be able to use a currency advantage to maintain domestic market prices in the foreign market.

Our findings also indicate that firms exporting to more competitive markets tend to perform better. We suggest this is because managers exporting to those markets are more alert to market opportunities and competitors' threats and as a result perform better.

By better understanding how exporting firms operate, public-policy makers will be able to screen candidates and allocate export assistance more effectively. This study shows that a firm's export performance increases as its management's international experience increases and as the level of export market competition increases. Therefore, public-policy makers are justified in continuing to allocate export assistance to the most experienced firms and to firms that are able to operate in the most competitive markets.

Finally, our findings reveal that the total effects of export assistance on export performance are nonsignificant because although support has a direct positive impact on performance, it also has a negative indirect impact through pricing

strategy. Because export support is intended to benefit both governments and firms, it seems reasonable that public-policy makers and managers should discuss what export assistance is most appropriate and how this assistance can best be applied in order to maximize its effectiveness. By better understanding how export assistance, pricing strategy adaptation, and short-term performance interrelate, 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 discuss with managers how to break this pattern.

Limitations

This research analyzes the relationship among three main constructs: export assistance, price strategy adaptation, and 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 discussed as relevant for all three of the main constructs in the international marketing literature. Nevertheless, we are aware that, as with other nonholistic 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 views of the exporters and do not consider the views of public-policy makers. 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 in an effort to make it difficult to detect which items were affecting which factors. Hence, we

hope to have minimized the biasing possibilities of common-method variance.

Finally, our exclusive focus on exporting firms based in Portugal may limit the generalizability of the results to countries similar to Portugal. Portugal is particularly interesting to study, as it is an emergent EU economy that is strongly dependent on the exporting activity of its firms. The small size of the Portuguese domestic market leads both Portuguese managers and public-policy makers to adopt a strong export orientation. 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

As initially discussed, there is an urgent need to develop more policy-oriented international marketing research. In this research we have attempted to help fill this important gap in the literature. We have included export assistance in our research model in order to determine the extent to which it has an impact on pricing strategy adaptation and how this impact manifests itself in performance. Simultaneously, we have focused on understanding export pricing adaptation/standardization strategy, one of the less researched topics in international marketing.

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, evaluation of a firm's exporting potential, advice on export opportunities, facilitation of trade mission market visits, and support for domestic firms' participation 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 to select a number of them and try to capture some

of the issues not captured by our study. For example, future studies could try to identify which forms of assistance are available to which firms and how specific forms of assistance might relate to a firm's strategy and performance. In the United States, for example, public-policy makers sometimes 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 (in terms of number of different supports received from various sources) and depth (in terms of frequency of use of each support received) of assistance affects pricing strategy and performance.

Future research might also examine how assistance to firms that have never before exported can help them enter an export market, or it might examine how exporters use export assistance to enter previously unexplored markets. In sum, the relationship between export assistance and export performance remains a very rich research area with many issues to explore.

Pricing Strategy Adaptation. As previously discussed, the literature has neglected the study of international pricing strategies. This gap is especially surprising because pricing is considered to be a key issue from a managerial perspective. Based on the results presented herein, one might conclude that the manner in which firms are using export assistance to develop their pricing strategies—namely, by adapting their prices to the export market—has not resulted in improved annual export performance. However, we did not include the cost of implementing a pricing adaptation strategy. It could be that the cost of implementing pricing adaptations outweighs the advantages of having a more adapted price. Future research could clarify this issue. Further research might also

examine company pricing practice in the foreign market from 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, Compeau, and Grewal 1997).

Annual Performance Improvement. This paper argues that developing an in-depth understanding of short-term performance—or more precisely, annual performance improvement—is absolutely essential. Although neglected by previous research (Lages and Lages 2004 is an exception), short-term performance is a top-priority issue for both managers and public-policy makers.

First, when the results of export operations improve from one year to the following, 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 plans. Third, as suggested during an interview, it is common for managers to focus 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 may lead them to place more importance on short-term performance. Additionally, performance improvement at the end of the year often has an immediate effect in terms of their 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. Effective allocation of export assistance will allow public-policy makers to save resources, which can then be used to generate reserves or can be allocated to other activities.

For the reasons stated above, we believe that more research on short-term performance improvement and its determinants is important for theory development as well as managerial and public-policy interests.

Rethinking the relationship between export assistance and performance

With this research we hope to stimulate international marketing researchers to develop future studies that analyze both the antecedents and outcomes of export assistance. 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 (please compare the direct effects presented in Figure 1 with the indirect and total effects presented in Table 1). 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 not significant). Thus, a model using only direct effects might have supported the misleading conclusion that export assistance has a positive performance payoff. Likewise, although the direct impact of competition on pricing adaptation is not significant, the indirect impact is found to be positively significant (the total effect is not significant). The insights provided by a simultaneous analysis of the direct, indirect, and total effects may explain why previous research that has focused exclusively on the study of direct relationships has been inconclusive. Much more empirical research is needed to understand and analyze the indirect relationships.

Finally, in order to test the relationships presented in this research further, 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, level of internationalization, and size of the firms. Finally, our short-term results presented interesting and surprising features, which suggests the potential for further surprising results when a longer horizon is examined. ■

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Appendix A. Scale Items, Reliabilities, and Variance Extracted

Please select the main export venture* 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.

η1: Export assistance ($\alpha = .76$; $\rho = .89$; $\rho_{vc(n)} = .74$)

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

Scale: 1 = None; 5 = Substantial

- y1:** Support from European Union
- y2:** Support from government (excluding EU support)
- y3:** Support from trade associations

η2: Pricing strategy adaptation ($\alpha = .85$; $\rho = .90$; $\rho_{vc(n)} = .69$)

Question: Consider the main export venture* over the past year (1998). To what extent do the following aspects differ when comparing the main export market to the domestic market?

Scale: 1 = No Adaptation; 5 = Extensive Adaptation

- y4:** Determination of pricing strategy
- y5:** Concession of credit
- y6:** Price discount policy
- y7:** Margins

η3: Annual export performance improvement ($\alpha = .93$; $\rho = .97$; $\rho_{vc(n)} = .93$)

Question: How well did your company achieve the

following objectives for the main export venture* from 1997 to 1998?

Scale: 1 = Much Worse in 1998 than in 1997; 5 = Much Better in 1998 than in 1997

y8: Export sales revenue for the main export venture

y9: Export sales volume (unit sales) for the main export venture

y10: Export profitability for the main export venture

ξ1: Management's international experience ($\alpha = .75$; $\rho = .84$; $\rho_{vc(n)} = .57$)

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

Scale: 1=None; 5=Substantial

- x1:** Degree of professional exporting experience
- x2:** Degree of foreign experience - live/work abroad
- x3:** Degree of training in international business, e.g. attended formal courses and export seminars
- x4:** Ability to follow-up on trade leads in the main importing market

ξ2: Export market competition ($\alpha = .79$; $\rho = .85$; $\rho_{vc(n)} = .66$)

Question: Considering the main export venture* during 1998, how would you characterize the following aspects?

Scale: 1 = None; 5 = Substantial

- x5:** Price competition in the industry
- x6:** Competition in the accomplishment of delivery deadlines
- x7:** Competition in the industry

*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).

Appendix B. Means, Standard Deviations, and Correlations

	Means	S.D.	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6	y7	y8	y9	y10
x1	3.62	.84	1.00																
x2	2.45	1.21	.30**	1.00															
x3	2.56	1.00	.40**	.42**	1.00														
x4	3.23	.92	.49**	.43**	.54**	1.00													
x5	3.97	.85	.14**	.11*	.02	.11*	1.00												
x6	3.76	.92	.07	.07	.06	.15**	.46**	1.00											
x7	3.87	.86	.13**	.07	.07	.10*	.62**	.52**	1.00										
y1	1.87	.87	.09*	.01	.05	.01	.08	.05	.06	1.00									
y2	1.78	.90	.13**	.09*	.11*	.10*	.08	.03	.03	.52**	1.00								
y3	1.63	.81	.06	.00	.09*	.02	.03	.02	.00	.44**	.64**	1.00							
y4	2.95	1.14	.08	.07	.00	.04	.04	-.01	.03	-.05	.04	.05	1.00						
y5	2.82	1.19	.10*	.11*	.03	.09*	.02	.01	-.01	-.06	.08	.06	.46**	1.00					
y6	2.73	1.20	-.01	.06	.01	.02	-.03	-.04	-.07	-.03	.06	.08	.49**	.64**	1.00				
y7	2.92	1.17	.01	.07	-.04	.02	.00	.00	-.04	-.04	.03	.08	.62**	.57**	.67**	1.00			
y8	3.38	1.01	.04	.11**	.13**	.13**	.07	.12**	.08	.00	.06	.01	-.01	-.05	-.05	-.10*	1.00		
y9	3.37	1.01	.06	.13**	.13**	.14**	.06	.09*	.06	-.03	.05	.02	-.01	-.08	-.08	-.10*	.92**	1.00	
y10	3.19	.91	.04	.11*	.10*	.14**	.02	.03	.00	-.02	.05	.04	.02	-.05	-.06	-.08	.74**	.76**	1.00

* $p < .05$; ** $p < .01$ (two-tailed test)

Notes

1. WLS is an asymptotically distribution-free (ADF) method of estimation insensitive to the non-normality of the data. Despite being popular in 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 (e.g., Cui and Park 1999; Lages 2000b; Styles 1998) have recently started to recognize the advantages of ADF methods over non-ADF methods such as Maximum Likelihood Estimation (MLE). Nevertheless, the international busi-

ness literature tends to use non-ADF methods (e.g., Shoham 1999; Styles 1998) or recommend their use (e.g., Cavusgil and Zou 1994). This is in part understandable, as simulations carried out by Curran, West, and Finch (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 that tend to hamper international business research. The situation is even more difficult when data are collected in foreign markets because this type of research has very high costs that academics, with typically restricted budgets, have a hard time overcoming (Zou, Andrus, and Norvell 1997).

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