

# Bringing Export Performance Metrics into Annual Reports: The APEV Scale and the PERFEX Scorecard

*Annual company reports rarely distinguish between domestic and export market performance and even more rarely provide information about annual indicators of a specific export venture's performance. In this study, the authors develop and test a new measure for assessing the annual performance of an export venture (the APEV scale). The new measure comprises five dimensions: (1) annual export venture financial performance, (2) annual export venture strategic performance, (3) annual export venture achievement, (4) contribution of the export venture to annual exporting operations, and (5) satisfaction with annual export venture overall performance. The authors use the APEV scale to generate a scorecard of performance in exporting (the PERFEX scorecard) to assess export performance at the corporate level while comparatively evaluating all export ventures of the firm. Both the scale and the scorecard could help disclose export venture performance and could be useful instruments for annual planning, management, monitoring, and improvement of exporting programs.*

Even though [managers] found it "impossible" to compare performance across ventures, they had to do so because they had to make decisions concerning resource commitment and so on for each venture.... Managerial judgment of the performance of individual export ventures is extremely important.

—Madsen (1998, pp. 84, 91)

It is imperative that firms use their annual reports to ... provide measures of marketing performance.... It is this so-called "soft-side" that increasingly differentiates a successful company from one that is not. The natural question, therefore, is how to resolve this dilemma.

—Herremans and Ryans (1995, p. 58)

Organizations have a wide range of metrics at their disposal for assessing annual performance. This process, which was first explored in the 1920s by Alfred Sloan and Donaldson Brown at General Motors, has become a crucial topic not only in the managerial literature (e.g., Kerr 2003; Smith 2000) but also across the different fields of management research (e.g., Ittner and Larcker 1998; Neely 1999). In the marketing field, performance metrics is one of the most

## ABSTRACT

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important contemporary topics. It was the core theme of a 2004 special issue of *Journal of Marketing*, which contained a group of challenging articles (see Lehmann 2004; Rust et al. 2004). Likewise, in 2004, the Marketing Science Institute organized a conference on the topic (Does Marketing Measure Up?) and again announced that performance metrics would remain a top tier priority for 2004–2006 (Marketing Science Institute 2004).

Equally, in the international marketing field, 40 years after Tookey's (1964) pioneering work, research on the performance of export ventures is more alive than ever (see, e.g., Diamantopoulos 2004; Lages and Lages 2004; Lages, Lages, and Lages 2005; Morgan, Kaleka, and Katsikeas 2004). Although the current intensive interest on export performance metrics is recognized, the conceptual development of this topic is relatively recent (Madsen 1987), and empirical efforts to explore this area are even less developed (for a major contribution to this field, see the 1998 special issue of *Journal of International Marketing*). Different approaches to export performance have been used, namely when analyzing its antecedents (for reviews, see Aaby and Slater 1989; Leonidou, Katsikeas, and Samiee 2002; Zou and Stan 1998) and, more recently, its outcomes (see Lages 2000, 2004; Lages and Jap 2003; Lages, Lages, and Lages 2003; Lages and Montgomery 2004). The diverse use of export performance measures questions the comparability of existing findings; researchers question whether existing results are a consequence either of the variables related to export performance or of its operationalization (Zou, Taylor, and Osland 1998). It would be useful for researchers to build on existing scales to develop universally accepted measures.

As previous research notes, although academics might contribute to managers' understanding and application of metrics, the "topic of metrics as discussed by managers differs from the topic of measurement as typically discussed by academics" (Melnyk, Stewart, and Swink 2004, p. 210). Practitioners typically work with different time scales and have different outcome expectations from those of academics (Likierman 2004). Only a limited number of academic research studies develop and analyze metrics to be included in annual reports (for an exception, see Abdeen 1991). At a time when marketing researchers are arguing that for "making marketing matter" it is necessary to link subjective marketing metrics to financial performance (Bolton 2004; Lehmann 2004), one further step could be the inclusion of subjective international marketing metrics in annual financial reports. As Abdeen (1991, p. 24) suggests, "the individual or collective action of the readers of annual reports can influence corporate policies and decisions." Thus, when considering the international marketing field, we strongly

believe that if more subjective export measures were included in annual reports, international marketing executives' and export managers' contributions would have more impact on the different stakeholders.

In this article, we justify the need to bring export venture performance into annual reports. We then present a brief review of the export performance literature. We extend the EXPERF scale (Zou, Taylor, and Osland 1998) to develop the APEV scale, a new five-dimensional measure for assessing the annual performance of an export venture. We build on the APEV scale and present a tool to assess performance in exporting (i.e., the PERFEX scorecard) at the corporate level. We present the results and discuss their implications for theory, managerial practice, and public policymaking. We conclude with research limitations and directions for further research.

Six major reasons justify a fundamental need for the disclosure of export performance metrics in annual reports. The first reason is to communicate the firm's situation in the global arena thoroughly. Exporting activity is instrumental in the determination of enterprises' value and national economic performance, and changes in the international context are constant and demand immediate responses; thus, most stakeholders (e.g., shareholders, investors, executives, government) require export information in annual reports. These stakeholders expect to have access to export data that enables them to evaluate the success (or lack thereof) of each export operation. Firms may benefit from responding to such requests because the credibility and importance of the export operations will be enhanced from the shareholders' viewpoint. The second reason is to help establish annual priorities. Despite managers knowing intuitively in which ventures to invest their efforts, it may become difficult to assign priorities and gauge the resulting annual benefits of each venture because there is no established measure to assess annual performance for individual export ventures. Thus, the definition of a clear metric and the attribution of different weights to different performance measures and to different ventures might play a major role in defining where the focus should be.

The third reason for the disclosure of export performance metrics in annual reports is to help firms plan and monitor. There is a need for a supporting tool in export decision making that enables a firm to control the way resources are annually administered and allocated to the different export ventures. Annual export performance metrics could help export managers and a firm's employees clearly define yearly objectives for particular products in specific markets, which in turn would enable them to control the cause of each export

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## **THE FUNDAMENTAL NEED TO BRING EXPORT PERFORMANCE METRICS INTO ANNUAL REPORTS**

venture's success (or lack thereof) more effectively. Metrics could also be used as a key monitoring and decision-making tool in a variety of situations, such as exporting a new product and exploring a new export market, or when major changes occur, such as when a firm restructures or downsizes across divisions. Fourth, disclosing export performance metrics in annual reports can be a motivational tool for export staff members. By relying on comprehensive data publicly presented in annual reports, people can be rewarded (e.g., bonus, promotion) when they achieve annual exporting goals. Moreover, when export performance is positive, all the firm's stakeholders are more likely to react positively, and thus export managers are in a better position to request more human and financial export support (Lages and Montgomery 2004). The fifth reason is to support benchmarking and improvement. Both companies and executives are under pressure to apply systems that improve export activity. Annual disclosure of export ventures' performance could provide both with a benchmark to track the progress of export operations over time. Moreover, this benchmark could be the basis for sharing information among export ventures' managers within and across firms to identify which exporting ventures perform better, thus enabling benchmarking of the best practices to the poorly performing ventures.

Sixth, the inclusion of export performance metrics into annual reports could enable the matching of research with the frame of reference that managers use. Because export planning is typically done on an annual basis and because a significant share of export managers' time is spent assessing annual performance of individual export ventures (Lages and Lages 2004), by developing annual export venture performance appraisals, researchers could provide powerful managerial tools. Moreover, annual export performance is related directly to managers' personal interests because a positive/negative performance could have an immediate effect on them (e.g., having a salary bonus versus being fired) (Lages and Montgomery 2004). Based on these arguments, a credible disclosure of export performance information is an important requirement in annual reports.

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## **EXPORT PERFORMANCE MEASUREMENT**

### **The Importance of Using Multiple Export Performance Metrics**

The export marketing literature suggests that a set of multiple items and dimensions to assess annual export venture performance is required (see Diamantopoulos 1998). Several underlying reasons justify this. Throughout the history of performance reporting, there has been a consistent dilemma. Although a single performance measure is not sufficient to determine whether a firm is in good shape, it is enough to determine whether a firm is ill. As Ambler (2001, p. 17) states, "there are no measures of corporate health, only of ill health." Thus, if a group of 14 export performance metrics finds nothing wrong, the export operations are "probably

doing well.” Conversely, a single indicator is sufficient to determine exportation sickness. The greater the number of measures, the greater is the likelihood of assessing the real situation of the firm. Another major obstacle for performance measurement is that firms have difficulties in finding the appropriate balance between the short and long term. When some dimensions of export performance measurement increase, others might not follow (e.g., short-term financial performance versus long-term strategic performance). Thus, both short- and long-term measures should be included to assess performance.

Different firms from different sectors tend to emphasize different measures of export performance because of internal (e.g., mission, goals, resources, strategies) and external (e.g., politico-legal, economic, sociocultural, technological) reasons. Because companies understand export performance in a variety of ways, results are often not comparable across export ventures within a firm and across companies. These issues justify the need for a set of multiple items and dimensions to assess annual export venture performance.

The annual report should account for management’s view of performance (Cumby and Conrod 2001). The clear limitations of financial metrics in assessing performance demand the inclusion of subjective measures in annual reports. This explains why investment analysts increasingly rely on subjective measures to make major investment decisions. Indeed, a recent survey developed by the Institute of Management Accountants reveals that a vast majority of financial professionals indicate that nonfinancial measures should be used more extensively within their companies (see Frigo 2002).

Similarly, in an international marketing context, there are several factors that support the use of a subjective approach for exporting firms. First, obtaining accurate data on financial export performance is difficult because export managers might be unwilling to respond openly and effectively to absolute values (Katsikeas, Piercy, and Ionnidis 1996). As we previously discussed, in many cases, company reports and financial statements do not provide specific information on different export ventures (Madsen 1998).

Second, export performance is a complex construct in the view of the firm. Financial success for one company may constitute failure for another because performance assessment is often idiosyncratic to the type of firm and its setting (Greve 1998). For example, differences in terms of the market and technology intensity could lead to a comparison of financial measures that do not have the same meaning across the various firms (Katsikeas, Piercy, and Ionnidis 1996).

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### **The Relevance of Subjective Metrics to Assess Export Performance in Annual Reports**

Moreover, financial export performance measures do not indicate whether a firm has adequately exploited existing export opportunities (Cavusgil 1984). This largely explains why managers tend to use their own perceptions of performance rather than objective values to formulate their decisions (Bourgeois 1980).

Finally, although objective assessments of actual performance may be regarded as more trustworthy, this type of approach raises different measurement problems. Both stakeholders and managers may have different opinions about which operational measures to use when setting targets, and thus it becomes difficult to agree on which financial measures to use to assess export performance and how to use them (Madsen 1998). In addition, some measures (e.g., profitability, return on investment [ROI], cash flow) could raise comparability problems as a result of different accounting practices across firms.

All these reasons can explain why subjective measures have proved to be valid in measuring export performance and in determining the way that performance is associated with managerial decisions (Katsikeas, Leonidou, and Morgan 2000). Nevertheless, in terms of mode of performance assessment, research should combine objective and subjective indicators (Venkatraman and Ramanujam 1986). Therefore, although the APEV measure we develop in this article is subjective, the PERFEX scorecard attempts to incorporate both types of measures.

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## DEVELOPMENT OF THE APEV SCALE

We argue that a possible way to develop the export marketing field further is to build multidimensional scales that rely on previous literature while taking into consideration the time frame (e.g., performance in a single year or multiple years) and the unit of analysis (e.g., performance at the corporate level or at the export venture level). This would help diminish the confusion in the export marketing literature by improving the quality and scope of export performance measurement. Moreover, the possibility of clarifying and establishing priorities in specific export performance domains is also more likely.

Although many researchers would agree with Churchill (1979) that developing a valid scale involves refinement and improvement of existing scales, few export performance studies have done so (for a notable exception, see Styles 1998). In the current study, we respond to Zou, Taylor, and Osland's (1998) call by reexamining the EXPERF scale, a widely accepted multidimensional export performance scale. Although we use the measurement domain of export performance to build the new APEV scale, we focus on a specific time frame (i.e., the annual performance) and unit of

analysis (i.e., an individual export venture). Because our focus is on a specific export venture in a specific year, responding executives have provided detailed (and subjective) knowledge of performance. In this section, we begin by reexamining the EXPERF scale and then justify each dimension of the APEV scale.

According to a recent meta-analysis (Katsikeas, Leonidou, and Morgan 2000), the majority of studies assessing export performance do so at the corporate level, and a mere 12% assess export performance at the export venture level. Despite the notable efforts in recent years to operationalize export performance as a construct using a specific unit of analysis, these efforts are often not explicit in the constructs' designations. A typical example is the EXPERF scale. Zou, Taylor, and Osland's (1998) study presents a multi-item scale with three dimensions: financial export performance, strategic export performance, and satisfaction with the export venture. Although all the nine items that comprise the EXPERF scale were collected specifically at the export venture level, the scale was named broadly as an "export performance" measure, implying that all the questions were at the corporate level. When analyzing in detail the three dimensions that constitute the EXPERF scale (see Zou, Taylor, and Osland 1998, p. 48), we find that these authors use the expression "export performance" for two of the dimensions; for the third dimension, the authors use the expression "export venture."

Because all the data were collected at the export venture level, we suggest that all three constructs should be named accordingly. The financial export performance dimension could have been named "export venture's financial performance," the strategic export performance dimension could have been named "export venture's strategic performance," and the satisfaction with the export venture dimension could have been named "export venture's achievement." The established literature typically analyzes export satisfaction by questioning managers about their satisfaction or dissatisfaction with specific indicators (see, e.g., Evangelista 1994; Seifert and Ford 1989). Moreover, we believe that the three items that constitute this dimension capture a broader concept than satisfaction because they capture the extent to which the export venture has been satisfactory, has been successful, and has met expectations. This dimension captures the extent to which performance has matched the firm manager's aspiration level, which may be used as a reference point to assess the degree of the export venture's achievement. High achievement is realized if the perception of the export venture's performance is greater than or equal to expected performance; if it is less, it has failed.

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## The EXPERF Scale

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## The APEV Scale

The APEV scale is a new measurement scale for assessing an individual export venture's performance in a year-long period. We named each of its five constructs, taking into consideration two issues: the new time frame (i.e., annual export venture performance) and the common unit of analysis (i.e., an individual export venture). The preliminary interviews and export performance literature (see Katsikeas, Leonidou, and Morgan, 2000) influenced us to consider the breadth of an export venture's performance domain. We captured this breadth in the APEV operationalization in two ways. First, we reconsidered the EXPERF dimensions within the new context and renamed them as follows: (1) annual export venture financial performance (AFP), (2) annual export venture strategic performance (AST), and (3) annual export venture achievement (AA). Second, we proposed two new dimensions to account for the variance that is not captured by any of the three initial theoretical dimensions: (1) export venture's contribution to annual exporting operations (ACE) and (2) satisfaction with annual export venture overall performance (ASP). Subsequently, we discuss each of the five dimensions included in our survey instrument (see Table 1).

We begin by discussing the two dimensions that are more short term: AFP and ACE. First, AFP measures the financial results of a specific export venture during a one-year period. Financial performance is the most common means of accessing export performance. The exporting literature provides financial indicators such as profitability (e.g., Bilkey 1982; Cavusgil and Zou 1994; Madsen 1989), sales volume (e.g., Cooper and Kleinschmidt 1985; Madsen 1989; Samiee and Roth 1992), and export growth (e.g., Cavusgil and Zou 1994; Samiee and Roth 1992; Shoham 1996). In this study, we asked exporters to assess their level of agreement with the statement that in Year Y, a specific export venture has "been very profitable," "has generated a high volume of sales," and "has achieved rapid growth."

Our second dimension assesses the contribution of ACE. A recent meta-analysis (Katsikeas, Leonidou, and Morgan 2000) indicates that export intensity is the most common measure in the export marketing literature. However, the export marketing literature typically examines the importance of export operations at the firm level. Traditionally, the literature examines export intensity in terms of percentage of export sales to total sales volume (e.g., Axinn, Noordewier, and Sinkula 1996), export sales to total sales value (e.g., Beamish, Craig, and McLellan 1993), and export profits to total profits (e.g., Axinn, Noordewier, and Sinkula 1996). In this study, because our unit of analysis is an export venture, we analyze an export venture's specific contribution to export operations, so that we can accurately evaluate its contribution to overall export performance. To the best of our

To define the exporting venture that will be the focus of this questionnaire, please select:

- (a) an exported product or group of exported products \_\_\_\_\_ (please indicate just one product or group of products)  
 (b) an importer in a foreign market for the export mentioned above (e.g., Firm A/Finland) \_\_\_\_\_ (please indicate just one firm in one country)  
 IMPORTANT: You have just defined the exporting venture of your company (which this questionnaire is about).

When considering the selected exporting venture in Year Y, what is your opinion about the following:

		The APEV Scale	
	Dimensions and Items of:	$\alpha/\rho_{vct(n)}/\rho$	Standardized Item Loading t-Value
AFP	<b>Annual Export Venture Financial Performance</b> (1 = "strongly disagree" and 5 = "strongly agree") In Year Y, • This export venture has been very profitable. • This export venture has generated a high volume of sales. • This export venture has achieved rapid growth.	.79/.57/.80	.62 7.04 .86 10.85 .77 9.31
ACE	<b>Contribution of the Export Venture to Annual Exporting Operations</b> (0%–9%, 10%–29%, 30%–59%, 60%–84%, 85%–100%) In Year Y, what was the contribution of the export venture to • Export sales volume? • Export sales value? • Export profit?	.97/.92/.97	.97 13.94 .96 13.56 .95 13.38

Table 1.  
Confirmatory Factor Analysis  
Results

Table 1.  
Continued

		The APEV Scale		
	Dimensions and Items of:	$\alpha/\rho_{vc(n)}/\rho$	Standardized Item Loading	t-Value
AST	<b>Annual Export Venture Strategic Performance</b> (1 = "strongly disagree" and 5 = "strongly agree") In Year Y, •This export venture has improved our global competitiveness. •This export venture has strengthened our strategic position. •This export venture has significantly increased our global market share.	.90/.75/.90		
AST1			.87	11.13
AST2			.89	11.58
AST3			.83	10.38
AA	<b>Annual Export Venture Achievement</b> (1 = "strongly disagree" and 5 = "strongly agree") In Year Y, •The performance of this export venture has been very satisfactory. •This export venture has been very successful. •This export venture has fully met our expectations.	.91/.77/.91		
AA1			.92	12.38
AA2			.90	11.89
AA3			.81	10.11
ASP	<b>Satisfaction with Annual Export Venture Overall Performance</b> (1 = "not satisfied at all" and 5 = "extremely satisfied") In Year Y, how satisfied are you with the results of the export venture when considering •Market share in the selected importing market of the export venture? •Overall export performance?	.77/.63/.77		
ASP1			.81	9.40
ASP2			.77	8.86

Notes: Year Y = 2000.  $\alpha$  = internal reliability (Cronbach 1951),  $\rho_{vc(n)}$  = variance extracted (Fornell and Larcker 1981), and  $\rho$  = composite reliability (Bagozzi 1980).

knowledge, annual export venture weight in relation to annual exporting operations has never been addressed. Thus, with this new dimension, we build on previous export intensity studies and propose to assess managers' perceptions of the export venture's contribution to the total exporting activity in terms of sales volume, sales value, and profitability during a one-year period.

We now discuss the other three long-term dimensions (i.e., AST, AA, and ASP). First, AST measures the strategic results of a specific export venture during a one-year period. Managers consider not only financial objectives but also strategic objectives of exporting (Cavusgil and Zou 1994). Strategic objectives include competitiveness, market share, and strategic position (Cavusgil and Zou 1994), which we included in our survey instrument through questions that referred to the contribution of a specific export venture in Year Y to global competitiveness, strategic position, and global market share.

Second, AA is a subjective measure that reflects an affective evaluation of the export venture. Firms establish a set of exporting objectives that may or may not be fully achieved at the end of the year. If expected goals were achieved, managers would perceive the export venture's performance as satisfactory and successful, and their expectations would be fulfilled. Conversely, if expected goals were not accomplished, an export manager might consider the export venture's achievement unsatisfactory and unsuccessful. Export achievement is a widely used means of assessing the performance of an export venture (e.g., Cavusgil and Zou 1994; Katsikeas, Piercy, and Ionnidis 1996). Annual export venture achievement assesses performance in terms of satisfaction, positive feelings about success, and the degree to which expectations have been met (Cavusgil and Zou 1994; Christensen, Da Rocha, and Gertner 1987).

Finally, ASP assesses satisfaction with the export venture in terms of its market share and overall performance. Satisfaction is one of the most-studied outcome variables in the marketing literature (for a review, see Geyskens, Steenkamp, and Kumar 1999), and it is also well established in the export marketing field (e.g., Lages and Lages 2004; Shoham 1998). Similar to previous export marketing studies (Evangelista 1994; Seifert and Ford 1989), we asked managers how satisfied they are with objective measures of export performance, such as market share and overall performance.

We adopted Churchill's (1979) traditional approach to scale development. The APEV scale evolved from a combination of exploratory qualitative in-depth interviews, a review of the export marketing literature, and a survey pretest. On the basis of the literature review and findings from the inter-

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## METHOD

### Survey Instrument Development

views, we specified the domain of the construct to include two additional categories, ACE and ASP, that are relevant to the assessment of annual export venture performance. With this in mind, we developed a set of items designed to measure each of the two dimensions. We generated these items primarily to capture a wider range of an export venture's performance elements that were neither covered nor captured by the three EXPERF dimensions.

Taking into consideration the time frame and unit of analysis, academic judges and managers involved in export operations for content evaluation assessed the combined set of 14 items for the new APEV scale. Substantive considerations were given to such aspects as the breadth of theoretical content coverage of the item, consistency of the contents tapped by individual items under a single factor, and clarity of the meaning and comprehensibility of the item (Matsuno, Mentzer, and Rentz 2000). After incorporating the suggestions, we proceeded to the final survey. A listing of the final items and their scale reliabilities appear in Table 1. The average internal reliability (Cronbach's  $\alpha$ ) was .87.

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### **Research Setting and Data Collection Procedure**

Our research setting is in the United Kingdom. A sample of 1564 British enterprises was randomly generated from a database of the British Chamber of Commerce (Reed Business Information 2000). In the cover letter, as an incentive, we stated that in return for a completed questionnaire, the findings would be available after the completion of the study. We also ensured confidentiality. We sent a cover letter, questionnaire, and postage-paid business reply envelope to the person who was responsible for exporting in each of the British firms. Unfortunately, because of a lack of financial resources, it was not possible to send a reminder mailing. We conducted the data collection in 2002. Of the 1564 questionnaires, we received 111 replies, which represents a raw response rate of 7%. To identify the problems associated with this low raw response rate, we used Menon and colleagues' (1999) procedure; we contacted 100 randomly chosen respondents to determine undeliverable and noncompliance rates, and then we assessed final response rates. We estimated that 34% of the mailings were undeliverable because of incorrect address, an additional 40% did not reach the person who was responsible for the export operations in the firm, and 4% of the respondents reported a corporate policy of not responding to academic surveys. In line with Menon and colleagues' (1999) procedure, the 111 usable returned questionnaires represents a 32% effective response rate.

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### **Assessment of Nonresponse Bias and Data Profile**

We tested for nonresponse bias by assessing the differences between the early and the late respondents with regard to the

means of all the variables for both samples (Armstrong and Overton 1977). We defined early respondents as the first 75% of the returned questionnaires and late respondents as the last 25%. These proportions approximate the actual way the questionnaires were returned. We found no significant differences between the early and the late respondents, suggesting that response bias was not a significant problem in the study. The survey was primarily directed toward people who were responsible for export operations and activities. The job title of these people included president, marketing director, managing director, and exporting director. We asked respondents to indicate their degree of experience in exporting on a scale from 1 (“none”) to 5 (“substantial”). The mean response was 3.8 (standard deviation = .93, range 1 to 5). This indicates that though the title of the positions may be wide ranging, the respondents appear to have considerable knowledge in the specific exporting activities of the firm and are experienced with exporting in general. A wide range of firm sizes are also represented in the sample. The British exporting industry is primarily composed of small and medium-sized enterprises. Of the exporting firms represented in the sample, 6% have more than 500 employees, and their average annual export sales ranges from US\$470,000 to US\$1.6 million.

We used confirmatory factor analysis (CFA) to assess the measurement properties of the existing scales, using full-information maximum likelihood estimation procedures in LISREL 8.3 (Jöreskog and Sörbom 1993). In this model, each item is restricted to load on its prespecified factor, with the five factors allowed to correlate freely. The chi-square for this model is not significant ( $\chi^2 = 86.78$ , 67 degrees of freedom,  $p = .052$ ). Because the chi-square statistic is sensitive to sample size, we also assess additional fit indexes: the comparative fit index (CFI), the incremental fit index (IFI), the Tucker–Lewis index (TLI), the goodness-of-fit index (GFI), and the standardized root mean square residual (SRMR). The CFI, IFI, TLI, GFI, and SRMR of this model are .99, .99, .98, .90, and .051, respectively. Because fit indexes can be improved by allowing more terms to be estimated freely, we also assess the root mean square error of approximation (RMSEA). The RMSEA of this measurement model is .052. Thus, the fit indexes reveal that the final measurement model is good.<sup>1</sup> As Table 1 shows, convergent validity is evidenced by the large and significant standardized loadings of each item on its intended construct (average loading size was .85). Table 1 also shows that all constructs present the desirable levels of composite reliability (Bagozzi 1980). We assess discriminant validity among the constructs using Fornell and Larcker’s (1981) test. The index of variance extracted was greater than the recommended level of .50 for all of the five constructs.

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## DATA ANALYSIS

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## THE PERFEX SCORECARD

Modern corporate executives need an increasing quantity and higher quality of information in annual reports about nonfinancial measures that enable them to manage corporate affairs and convey a powerful message to chief executive officers and chief financial officers (Reibstein 2004). Among the widely diverse approaches and measures, Kaplan and Norton's (1992, 1996, 2001) balanced scorecard has been extremely popular. Indeed, their scorecard framework inspired the development of other balanced scorecards that firms use to outperform competitors (Frigo 2002). Many *Fortune* 500 companies have found balanced scorecards "to be an innovative performance-improvement strategy that gets results" (Abernathy 1997, p. 58).

In an exporting context, the underlying idea that supports development of a balanced scorecard to be included in annual reports is to provide a tool that compares annual performance across export ventures by using a set of metrics. The company's export plan should be translated into a set of specific requirements (i.e., the metrics in the scorecard) that can be regularly reviewed. To balance the metrics, we recommend that the scorecard include both objective and subjective metrics that reflect the overall business strategy (Kaplan and Norton 1996). However, previous research (Katsikeas, Leonidou, and Morgan 2000; Madsen 1998) indicates that in most cases, export managers do not have objective metrics on particular export ventures (e.g., export ventures' ROI, export ventures' profit). Because of this lack of objective values, managers find it "impossible" to compare performance across ventures. Nevertheless, they must do so to make major decisions such as allocating scarce resources (Madsen 1998, p. 84). Thus, we propose a tool that combines subjective and, whenever possible, objective metrics to assess a company's overall export performance when comparing different export ventures. Figure 1 presents an attempt to build the PERFEX scorecard. With this tool, managers can always rely on subjective perceptions using the APEV scale as a basis, and they can use objective (financial) measures if they are available.

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### How to Use the PERFEX Scorecard

The first step in using the PERFEX scorecard is to identify the number of export ventures within a firm (see Figure 1). For each of the export ventures, existing objective metrics must be identified whenever possible (see Figure 1), and the 14 items in the APEV scale must be assessed on a five-point scale (see Table 1). Then, the average score for each of the five APEV dimensions must be calculated, and the results must be multiplied by its respective weight. The sum of the five weighted dimensions is the final  $APEV_{Score}$ .

All the weightings should be done and agreed on by a specific group of stakeholders so that there is a general acceptance of the weight of each dimension and venture before its

Subjective Metrics														
Export Venture Description	Product/Market	Objective Metrics		Short-Term Dimensions		Long-Term Dimensions				Export Venture Performance				
		Metric <sup>a</sup>	EV Ranking <sup>a</sup>	ACE <sub>Score</sub> : Three-Item Average		AST <sub>Score</sub> : Three-Item Average		AA <sub>Score</sub> : Three-Item Average		ASP <sub>Score</sub> : Two-Item Average		APEV <sub>Score</sub> ×	EV Weight to Overall Export Performance (%)	= EV <sub>WeightedScore</sub>
				Weight (%)	Weight (%)	Weight (%)	Weight (%)	Weight (%)	Weight (%)	Year Y - 1 Base(s) <sup>b</sup>	Year Y + 1 Priority <sup>b</sup>			
EV1	/	—	—	×	—	×	—	×	—	×	—	×	—	—
EV2	/	—	—	×	—	×	—	×	—	×	—	×	—	—
EV3	/	—	—	×	—	×	—	×	—	×	—	×	—	—
EVn	...	...	...	...	...	...	...	...	...	...	...	...	...	...
												Sum =	PERFEX <sub>Score</sub>	

<sup>a</sup>The number of columns is equal to the number of export ventures' objective performance metrics (e.g., sales volume, profit, ROI, market share). If more than one objective metric is available, a summary column with a final export ventures' ranking should be created while taking into consideration the different weights for each metric.

<sup>b</sup>These fields should take into consideration the EV<sub>WeightedScore</sub> and, if possible, existing objective metric(s).  
 Notes: PERFEX<sub>Score</sub> = EV1<sub>WeightedScore</sub> + EV2<sub>WeightedScore</sub> + EV3<sub>WeightedScore</sub> + EV4<sub>WeightedScore</sub> + EVn<sub>WeightedScore</sub>; APEV<sub>Score</sub> = AFP<sub>Score</sub> + ACE<sub>Score</sub> + AST<sub>Score</sub> + AA<sub>Score</sub> + ASP<sub>Score</sub>; EV = export venture.

Figure 1.  
The PERFEX Scorecard

implementation and future assessment. We also recommend that a review of the weights for each of the APEV dimensions should consider the percentage assigned to short- versus long-term metrics. In the APEV scale, some metrics are more short term (AFP and ACE), and other metrics are more long term (AST, AA, and ASP). A disproportionate weighting may not be in the best interest of the organization, because in principle, the short and long terms are equally important to the firm.

The  $EV_{\text{WeightedScore}}$  is the product of multiplying the final  $APEV_{\text{Score}}$  by each export venture weight to overall export performance. Each  $EV_{\text{WeightedScore}}$  must take into consideration the firm's mission and objectives and the different insights from the firm's stakeholders. A final  $PERFEX_{\text{Score}}$  results from the sum of all  $EV_{\text{WeightedScores}}$ .

It is important to note that managers are often judged not only by the performance of the export ventures but also by the priorities they place on them. Thus, we propose that each current year (Y) weighted score be compared with the score from the previous year (Y – 1) because problems are typically flagged by the size of the gap between the current year's metrics and the base score from the previous year. This annual feedback can enable executives to make corrections and can help them assign goals and priorities for the following year. To define each export venture goal and degree of priority, firms might also consider existing objective metrics, international objectives, stakeholders requirements, and industry benchmarks. Another possibility is to set subgoal intervals to use the PERFEX scorecard (e.g., on a monthly or quarterly basis). The major advantage of doing this is that monthly or quarterly feedback would enable management to review the export venture's performance trends and to make corrections more frequently as a response to the changing environment (see Abernathy 1997). In this way, periodic scheduled reviews with the PERFEX scorecard might be extremely relevant in monitoring and improving export strategy.

The PERFEX scorecard we develop herein should ensure that export managers and different stakeholders pay attention to both short- and long-term metrics, to subjective and existing objective metrics, to each export venture, and to overall export performance. The inclusion of PERFEX scorecards in annual reports would make them more transparent and would improve the reliability of investment decisions on specific export ventures.

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## MANAGERIAL IMPLICATIONS

In today's global world, export performance has become a key strategic issue in justifying the viability of a firm, which increasingly depends on how well the firm is capable of

responding to foreign demands. To make export success concrete to everyone, we believe that export managers are expected to make international intentions tangible by translating a set of goals into a set of performance measures to be assessed annually. To help with this task, we develop two tools to assess export performance: the APEV scale (at the export venture level) and the PERFEX scorecard (at the export venture and firm levels).<sup>2</sup>

Chief executive officers and chief financial officers are particularly interested in indicators that enable them to assess the performance of the export operations. There is also a need for managers to assess export performance by venture (i.e., a single product or product line exported to a single foreign market) because this may assist them in clarifying the actual processes that underlie performance assessments and in defining specific planning directions. Indeed, as Madsen (1998, p. 91) notes, “further international development of the firm is highly dependent on sound judgments of export performance” because this enables a better “allocation of resources to the right export ventures.”

The APEV measure can be used to make meaningful comparisons among export ventures within a firm. For example, by tracking a set of an export venture’s performance indicators, executives will be in a better position to identify which ventures require more resources and support to achieve long-term development and which ones have a stronger impact on current export performance. The APEV scale might be helpful in monitoring vital export events and monitoring progress in a venture’s development on a longitudinal basis. This tool also provides the organization with a benchmark to track the progress of each export operation over time and to develop an exchange of ideas among export ventures’ managers within and across firms. Indeed, the PERFEX scorecard could be a useful tool to managers, chief executive officers, chief financial officers, and other stakeholders in a firm. First, managers can use the PERFEX scorecard as an export improvement system that presents targets for performance improvement, promotes changes in the organization on a continual basis, and provides guidelines to reduce costs. Second, the implementation of this tool could make export managers more publicly accountable by helping them justify decisions on export ventures to the different stakeholders. Third, firms can use the scorecard as a learning tool to communicate and inform stakeholders (see Kaplan and Norton 1996). In this way, the PERFEX scorecard can be used to promote the participation of all employees in the firm’s decisions by informing them of critical issues that drive export performance. Finally, this tool can be used to establish and enhance the relevance of the export operations within a firm

by increasing stakeholders' trust in the export operations and raising the profile of the exporting activity at the board level.

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## PUBLIC POLICY IMPLICATIONS

In addition to implications at the firm level, research interest in the export performance topic is also a natural consequence of its macro importance (Katsikeas, Leonidou, and Morgan 2000). At the macro level, there is a need for a sound evaluation of both annual export venture performance and the firm's export performance. National firms' export performance is associated with the extent to which governments accumulate annual foreign exchange reserves, improve national productivity, and create new jobs (Czinkota 1994). At the public policy level, both the APEV scale and the PERFEX scorecard can be used to make meaningful comparisons across export ventures within an exporting country in a specific year and over time. Moreover, Lages and Montgomery (2001) argue that for export ventures to be effective, assistance should be provided and monitored at the export venture level rather than at the firm level. These tools enable public policymakers to make comparisons across different export ventures within a firm. Because public policymakers often provide export assistance to export ventures and exporting firms that perform well (Lages and Montgomery 2001), both tools are beneficial; they would enable better allocation of limited resources to specific ventures and better monitoring of the effectiveness of such export assistance. In this way, valuable resources would be saved, which in turn could be used for generating reserves or allocating to other activities. Furthermore, both firms and governments should have a common definition and operationalization of export venture performance. Incorporation of the APEV and PERFEX tools in annual reports could provide a first step toward a shared meaning. In summary, the use of both tools could help public policymakers make more knowledgeable export assistance decisions, which in turn could help organizations and their respective countries pursue their goals.

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## RESEARCH LIMITATIONS

Regarding the implementation of the PERFEX scorecard, though there are many benefits to be gained in any prioritizing process, there are also limitations. We argue that personal assessments that managers use to evaluate priorities are subject to individual biases and influences from the internal and external environment. Thus, "if the inputs into the prioritization process are flawed, then the outcome is unlikely to provide any value" (Reisinger, Cravens, and Tell 2003, p. 436).

Another limitation associated with the implementation of the PERFEX scorecard is the possible lack of a balanced approach. Although many firms have realized the importance of combining short- and long-term dimensions and objective and subjective measures, some have failed to

understand them in the perspective of balanced frameworks. Such an inequality could lead to an unclear picture of the organization (see Gunasekaran, Patel, and Tirtiroglu 2001). In the exporting context, obtaining the right balance becomes an even greater challenge because in most cases, there are no financial measures to be applied at the export venture level. Nevertheless, even if financial measures are lacking, it is important to acknowledge that management research has empirically demonstrated that subjective performance measures are typically associated with financial performance (e.g., Anderson, Fornell, and Lehmann 1994; Said, Hassab-Elnaby, and Wier 2003). Similar findings are also reported in the export marketing field (Lages, Lages, and Lages 2005).

At the methodological level, a limitation is that our research instrument (i.e., the questionnaire) may have created common method variance. This could be particularly threatening if the respondents were aware of the conceptual framework of interest. However, we did not inform them of the specific purpose of the study, and we separated and mixed all of the construct items. Furthermore, we guaranteed confidentiality to all survey participants, which also helps reduce the possibility of bias in performance reports for self-presentation reasons. In addition, if common method bias exists, a CFA containing all constructs should produce a single-method factor (Podsakoff and Organ 1986). The goodness-of-fit indexes (CFI = .68, IFI = .68, TLI = .62, GFI = .55, SRMR = .18, and RMSEA = .258) indicate a poor fit, which suggests that common method variance bias is unlikely.

Finally, because the research context involved a relatively small sample of exporters from a single country, this may limit the generalizability of the results. Our effort to develop the APEV scale should be considered part of a larger effort in trying to build on the extant literature and help researchers capture annual export venture performance and overall export performance in future studies.

Some decades ago, the importance of the export activity was significantly less. However, with the increasing importance of the export operations for both firms and governments, the significance of developing adequate export performance measures is critical. Unfortunately, the majority of annual performance measures do not work for exporting organizations. In addition, the measures previously developed in the export marketing field are difficult to incorporate in companies' annual reports. Therefore, there is a great need for further research to develop specialized measures to help export managers assess and achieve their international objectives. A major question for further research is how to build on the APEV scale and the PERFEX scorecard to help organizations

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## **DIRECTIONS FOR FURTHER RESEARCH**

measure their export ventures and their overall export performance.

Further research should help organizations develop meaningful export performance measures that will enable them to meet their annual goals and yearly objectives and determine how their export ventures are performing. Nevertheless, to be effective, it is crucial that both tools are viewed from a dynamic perspective. When applying these tools, managerial and shareholder feedback should always be taken into account. This feedback will be useful from a learning perspective and for the future review and development of these frameworks.

The APEV scale could also help managers who consider annual performance a reference point when planning future actions and when allocating resources to specific export ventures. Recent empirical results indicate that the high/low annual performance of the main export venture has an immediate impact on strategic exporting decisions (Lages and Jap 2003) and on export management commitment (Lages and Montgomery 2004). It is essential that international marketing researchers make an effort to understand this reactive behavior to prior performance, at both the firm and the export level. Most international marketing research tends to ignore the reactive behavior of export managers even though it may play an equal, if not greater, role than proactive behavior in the determination of current export strategy. Thus, we encourage future studies to use export venture annual performance as an independent variable.

Finally, from a scale development and refinement perspective, we recommend the replication of this study across various industries and particularly across different countries. Further research should be particularly concerned with exploring the annual export venture context that managers and public policymakers frequently use to assess performance (Lages and Lages 2004; Madsen 1998). Researchers should be concerned with the use of a clearly defined conceptual domain (i.e., time frame and unit of analysis) so that export performance metrics are as precise and complete as possible. We encourage researchers to develop a scale that uses other time frames and units of analysis to assess export performance. Despite the complexity of the task, we strongly encourage the refinement of the PERFEX scorecard to assess export performance at the corporate level because this is another controversial area that requires a valid and reliable tool (Katsikeas, Leonidou, and Morgan 2000).

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## CONCLUSION

Research has not kept pace with new managerial demands (Melnyk, Stewart, and Swink 2004). As Likierman (2004) recently emphasized at a conference on performance meas-

urement, it is essential to translate scholastic theories into practice. Despite recent major developments in export performance assessment (e.g., Lages and Lages 2004; Styles 1998; Zou, Taylor, and Osland 1998), the existing models still present limitations in meeting the needs of their users. In particular, the existing exporting literature has been unable to provide a solution to meet the demands for an increased accountability of annual exporting operations. Thus far, no study has tried to develop a sound evaluation of annual export venture performance to be included in annual reports.

Nevertheless, the increased costs and returns in relation to the exporting activity might help change the tone and direction at the research and organizational levels. In recent years, an increasing number of firms have realized the potential of the exporting activity. However, they often lack the (academic) methodological knowledge to develop effective export performance metrics that demonstrate the viability of their export venture strategies. Without these measures, it is difficult to establish a clear direction for the improvement and achievement of export goals. Executives in charge of exporting operations should consider collecting and disclosing nonfinancial information in annual reports. Such disclosure would increase the credibility of the export information, create a transparency in the elaboration of export decisions, demonstrate the firm's commitment to the exporting activity, and broaden the audience of the export message. A disclosure of export performance metrics in annual reports would help strengthen stakeholders' trust in the export operations and in the organization. Export performance metrics are essential in providing information to various internal and external stakeholders and decision makers. Thus, we propose that an appropriate step for organizations that want to monitor, plan, and improve exporting programs is to incorporate the PERFEX scorecard in annual reports. Similarly, export managers could use the APEV scale as a tool for managing specific export ventures and creating accountability in export operations.

1. The fit for the measurement model with the three adapted EXPERF dimensions (i.e., AFP, AST, and ASP), though acceptable, is slightly worse: CFI = .94, IFI = .95, TLI = .92, GFI = .90, SRMR = .080, and RMSEA = .113. We thank an anonymous reviewer for this insight.
2. An information technology solution based on the APEV scale and the PERFEX scorecard is also being developed. For further information, please contact the first author.

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## NOTES

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