# Firm-Level Export Performance Assessment: Review, Evaluation, and Development

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*Export performance is one of the most widely researched but least understood and most contentious areas of international marketing. To some extent, this problem can be ascribed to difficulties in conceptualizing, operationalizing, and measuring the export performance construct, often leading to inconsistent and conflicting results. This study reviews and evaluates more than 100 articles of pertinent empirical studies to assess and critique export performance measurements. Based on gaps identified in this evaluation, guidelines for export performance measure development are advanced, suggesting, however, a contingency approach in their application. Several conclusions and implications for export strategy and future research are derived from this analysis.*

Export (and international) marketing research has often been ascribed tangential status within marketing science (Axinn 1994; Farley and Wind 1980; Wind 1979) for a variety of reasons, including operational difficulties conducting and coordinating export research (Cavusgil and Nevin 1981; Douglas and Craig 1983); confusion over the exact role, nature, and purpose of exporting (Kamath, Rosson, Patton, and Brooks 1987);[1] and a research bias that ignores or underestimates the relevancy of business and marketing research to exporting (Johanson and Vahlne 1990). The extant literature is therefore fragmented and atheoretic, hindering scholarship and practical advancement in the field (Albaum and Peterson 1984; Zou and Stan 1998).

This is particularly true for the widely researched topic of export performance and the factors related to firms' export success (Cavusgil and Zou 1994). Superior export performance is of vital interest to three major groups: *public policy makers*, who view exporting as a way to accumulate foreign exchange reserves, increase employment levels, improve productivity, and enhance societal prosperity (Czinkota 1994); *business managers*, who see exporting as a tool to boost corporate growth, increase capacity utilization, improve financial performance, strengthen competitive edge, and even ensure company survival in a highly globalized marketplace (Kumcu, Harcar, and Kumcu 1995; Samiee and Walters 1990); and *marketing researchers*, who consider exporting a challenging but promising area for theory building in international marketing (Zou and Stan 1998).

Interest in achieving superior performance is not confined to the export marketing field; it is also one of the most exciting, yet contentious, issues in the marketing discipline. For instance, two decades ago an assessment of the

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contributions of marketing science to the strategic management literature concluded that a definitive set of factors leading to superior business performance was still lacking (Biggadike 1981). Although considerable progress has since been made, research remains underdeveloped. Defining and understanding performance is problematic (Grunert and Ellegaard 1993), especially in terms of identifying uniform, reliable, and valid performance measures (Matthyssens and Pauwels 1996).

The literature on export performance is similar: despite widespread research, it has remained one of the least understood areas of international marketing. To some extent, this can be explained by problems conceptualizing, operationalizing, and measuring the export performance construct, often leading to inconsistent and even conflicting results (Axinn 1994; Walters and Samiee 1990). Ultimately, it is almost impossible to ascertain whether variations in research findings are due to the independent variables or the great number of different export performance measures employed (Zou, Taylor, and Osland 1998).

Earlier assessments of the empirical research have focused primarily on synthesizing, classifying, and assessing the impact of independent factors on export performance (see, for example, reviews by Aaby and Slater 1989; Chetty and Hamilton 1993; Madsen 1987; and Zou and Stan 1998). However, the evaluation of conceptual and methodological underpinnings of export performance measures employed as dependent variables in empirical research has largely been ignored. The only exception is the work of Matthyssens and Pauwels (1996), which, although insightful, focused on only a few performance measurement aspects and reviewed a limited number of export marketing studies.

In addressing this void, this article contributes to the field by providing a critical review, evaluation, and development of the various export performance measures used in the literature. Such an endeavor is vitally important in furnishing export managers with valuable insights into the formulation and implementation of effective export marketing strategies (Kirpalani and Balcome 1987; Madsen 1998). The present study is organized into seven sections as follows: (a) the methodology used in the literature search is outlined, (b) current research on export performance and its determinants is summarized, (c) export performance measures employed in the literature are reviewed, (d) export performance measures are evaluated according to theoretically anchored criteria, (e) specific gaps are identified and guidelines for export performance measure development suggested, (f) export strategy implications are discussed, and (g) directions for future research are recommended.

## LITERATURE SEARCH METHOD

Our investigation targeted studies examining variables related to export performance. Moreover, to be eligible for inclusion, studies had to meet the following criteria: (a) examine firms engaged in exporting as opposed to more advanced foreign market entry modes, such as licensing, contract manufacturing, joint ventures, or direct investment; (b) adopt a microbusiness (e.g., product, venture, or firm) rather than macroeconomic (e.g., industry, country, or region) perspective of analysis; (c) evaluate manufacturing firms, as manufactured exports account for the bulk of total world export trade (World Bank 1998); (d) focus on firms with production operations in single national locations, as the vast number of exporting firms fall into this category (Grosse and Kujawa 1995); and (e) be empirical in nature in that analysis is based on primary and/or secondary data.

The bibliographic search covered all studies published from the inception of this stream of research up to the present. These were identified in 103 articles published in 33 literature sources in the fields of marketing (16), general management (7), international business (5), and economics (5). Articles on export performance followed a geometric progression, with the 1990s comprising 70 percent of the total publication output. Articles were examined to identify and eliminate study duplication (use of same data set). Ten articles[2] were excluded on this basis, leaving 93 studies fulfilling all eligibility criteria.

A well-defined, theoretically sound framework was designed to evaluate export performance. This framework was based on a comprehensive review of the organizational effectiveness (e.g., Cameron and Whetten 1983; Lewin and Minton 1986; Quinn and Cameron 1983), management (e.g., Hofer 1983; Kaplan and Norton 1993; Venkatraman and Ramanujam 1987), international business (e.g., Hitt, Hoskisson, and Ireland 1994; Hitt, Hoskisson, and Kim 1997), marketing (e.g., Bhargava, Dubelaar, and Ramaswami 1994; Day and Wensley 1988), and strategy (e.g., Chakravarthy 1986; Dess and Robinson 1984) literatures, where business performance assessment has received focal research attention. Table 1 presents the major evaluation categories and specific criteria, as well as the literature sources from which these were extracted.

A coding protocol reflecting the criteria outlined in the framework of analysis was developed in a three-stage process. First, to ensure that classifications were theoretically anchored, a draft protocol comprising the broad evaluative criteria was drawn up. Second, 20 studies were randomly selected and evaluated using the draft protocol, and these classifications were subsequently refined to enable meaningful codification. Finally, using the improved protocol, an independent expert judge (a senior professor with

**TABLE 1**
**Export Performance Assessment Evaluative Framework**

| *Evaluation Category* | *Evaluative Criterion* | *Literature Source* |
|---|---|---|
| Dimensions of performance | Effectiveness | Mahoney (1988) |
| | Efficiency | Walker and Ruekert (1987) |
| | Adaptiveness | |
| Frame of reference | Domestic market performance | Tsui (1990) |
| | Temporal | Ford and Schellenberg (1982) |
| | Industry | Cameron (1986) |
| | Firm's own goals | Lewin and Minton (1986) |
| Stakeholder perspective | Internally oriented | Day and Wensley (1988) |
| | Competitor centered | Day and Nedungadi (1994) |
| | Customer focused | |
| Time horizon | Historical | Lubatkin and Shrieves (1986) |
| | Current | Day and Wensley (1988) |
| | Future | Chakravarthy (1986) |
| Unit of analysis | Corporate level | Jacobson (1987) |
| | Export venture | Hofer (1983) |
| | Product/product line | Cavusgil and Zou (1994) |
| Scope of analysis | All firm's export markets | Cameron and Whetten (1983) |
| | Geographic region | Szymanski, Bharadwaj, and Varadarajan (1993) |
| | Single country | |
| Source of data | Primary | Dess and Robinson (1984) |
| | Secondary | Huber and Power (1985) |
| Mode of assessment | Objective | Venkatraman and Ramanujam (1986, 1987) |
| | Subjective | |

significant international business research experience) evaluated another 15 randomly selected articles, resulting in further refinements to the coding protocol. The classification system developed for the evaluation of export performance has three major strengths: (a) it is theoretically anchored, as it draws from other disciplines better developed in terms of business performance conceptualization and operationalization; (b) it is developed systematically to ensure both clarity and comprehensiveness, enabling an unambiguous taxonomy of the various export performance measures used in empirical study; and (c) it is universally applicable to company export performance assessments, irrespective of export setting idiosyncrasies (cf. Leonidou, Katsikeas, and Piercy 1998).

All studies were then evaluated and coded independently by two researchers (graduate assistants). Comparison of these evaluations revealed that, overall, the interrater classification of individual studies on the coding protocol was the same; differences did not appear to be systematic or concentrated on particular areas of the coding instrument. Where disagreements arose, the independent expert judge together with the two researchers determined a final coding. Fifteen additional studies were randomly selected and coded by the expert judge, and in all cases the coding matched that of the two primary raters, indicating that the evaluation procedure yielded reliable results.

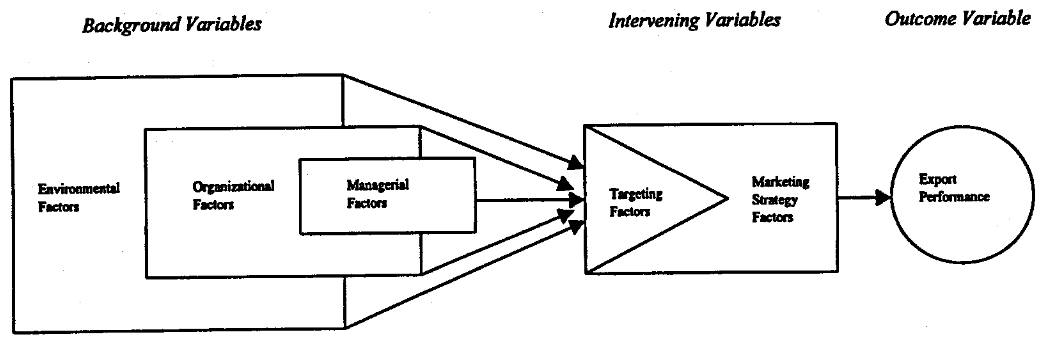
## PAST RESEARCH ON EXPORT PERFORMANCE

Research on the firm's export performance dates back to the early 1960s with the pioneering work of Tookey (1964), who first attempted to identify the factors associated with success in exporting. Since then, numerous empirical studies have examined the interrelationships among export performance determinants and their outcomes, indicative of an ever-increasing interest in export operations worldwide. Attempts to conceptualize the dynamics of these interrelationships suggest a simple model consisting of three groups of variables (see Figure 1) (Axinn 1994; Cavusgil and Zou 1994; Da Rocha and Christensen 1994; Holzmüller and Kasper 1991): background, that is, managerial, organizational, and environmental forces that indirectly affect export performance; intervening, that is, variables that directly affect export performance, comprising mainly targeting and marketing strategy elements; and outcome, that is, the firm's export performance.

### Background Variables

*Managerial factors* are all those demographic, experiential, attitudinal, behavioral, and other characteristics of the decision maker within the firm who is potentially, or

**FIGURE 1**
**A Simplified Export Performance Model**




actually, involved in the export marketing process (Leonidou et al. 1998). The way in which managers select, enter, and expand in foreign countries, design export marketing strategies, and monitor business with overseas customers will inevitably affect the firm's export performance. In this respect, some researchers suggest that certain managerial profiles are conducive to export success (e.g., Evangelista 1994; Gomez-Mejia 1988). However, with the exception of a few factors that exhibited a systematically strong effect on export performance, such as personal commitment (McConnel 1979; Simmonds and Smith 1968), professional experience (Da Rocha, Christensen, and Da Cunha 1990; Dichtl, Köglmayr, and Müller 1990), and language proficiency (Czinkota and Ursic 1991; Holzmüller and Kasper 1990), empirical findings on this association have not been so clear.

*Organizational factors* comprise demographic aspects, operating elements, resource characteristics, and goals and objectives of the exporting firm (Leonidou 1998). Certain organizational features were hypothesized to lead to superior export performance, and confirmed by empirical findings. This was particularly evident in the case of company size—whether measured in terms of number of employees, sales turnover, or total assets—and resource availability, where it was found that larger firms (Christensen, Da Rocha, and Gertner 1987; Culpan 1989) and those with adequate human and R&D resources (Beamish, Craig, and McLellan 1993; Gomez-Mejia 1988) perform better in overseas markets. Nevertheless, certain other organizational factors, such as product characteristics and corporate objectives, had no significant effect on export performance (Beamish et al. 1993; Cooper and Kleinschmidt 1985; Gomez-Mejia 1988).

*Environmental factors* are forces shaping both the domestic and overseas task environment and macroenvironment within which exporters operate, and are essentially external factors beyond the control of the exporting organization (Aaby and Slater 1989). Although the potential role of these factors in influencing export performance has been repeatedly stressed in the export marketing literature, little empirical research has been undertaken to confirm this, probably due to the complexity of the international business environment (e.g., Rao 1990; Rao and Naidu 1992; Reid 1987). Instead, these factors have been examined mainly within the context of stimuli and/or barriers to exporting, and several (e.g., economic conditions, trade barriers, and competitive pressures) were revealed as influential (Leonidou 1995).

## Intervening Variables

*Targeting factors* relate to the critical processes of identifying, selecting, and segmenting international markets (Kotabe and Helsen 1998). Although these factors received scant empirical attention and were confined to only two major issues, export expansion strategy and foreign market segmentation, interestingly, significant relationships between targeting variables and export performance were often reported (e.g., Amine and Cavusgil 1986; Donthu and Kim 1993; Evangelista 1994; Lee and Yang 1990).

*Marketing strategy factors* refer essentially to the company's export product, pricing, distribution, and promotion strategy (Albaum, Strandskov, and Duerr 1998) and are key to superior export performance. A sizeable number of studies examined the link between export performance and marketing strategy and, with few exceptions, found a positive relationship. Specifically, strong associations were found for product quality (Dominguez and Sequeira 1993; Louter, Ouwerkerk, and Bakker 1991; Ryans 1988), pricing strategy (Namiki 1994; Samiee and Anckar 1998; Styles and Ambler 1994), dealer support (Beamish et al.

1993; Cavusgil and Zou 1994; Madsen 1989), and advertising (Amine and Cavusgil 1986; Fraser and Hite 1990; Styles and Ambler 1994).

### Outcome Variables

Export performance is the dependent variable in the simplified model and is defined as the outcome of a firm's activities in export markets (Shoham 1996). There are two principal ways of measuring export performance: economic (financial measures such as sales, profits, and market share)[3] and noneconomic (nonfinancial measures relating to product, market, experience elements, etc.) (Cavusgil and Zou 1994; Matthyssens and Pauwels 1996). Most background and intervening variables were associated with economic measures of performance, particularly export sales intensity (export-to-total sales ratio), export sales growth, and export profitability.

Review of the export performance literature reveals certain shortcomings. First, because logical empiricism is the dominant methodology, most studies merely examined determinants of export performance in relation to their outcomes, without linking the results to a wider theory (Kamath et al. 1987). However, the current emphasis is to gradually build a theory of export performance based on the collection of enough facts associating independent with dependent variables, rather than to develop the theoretical platform first and subsequently test it under real conditions.

Second, export performance and its determinants were examined in isolation from developments in domestic marketing. For instance, the effect of domestic macroenvironmental factors on export performance has received only marginal attention, as has the potentially important role of task environmental forces. Most important, interrelationships among the constituent elements of domestic and export marketing strategies, as well as their concurrent impact on both domestic and export business performance, have not been researched at all (Dalli 1994; Evangelista 1994).

Third, factors affecting export performance were not examined in relation to other strategic options, for instance, the allocation of organizational resources (domestic versus export businesses) (Reid 1983). Strategic alternatives such as new product development or efficient distribution systems can often be comparatively better growth venues than exporting (Crick 1995). Furthermore, existing research neglects the fact that a company's overall competitive strategy will affect its export targeting and marketing strategy, the core variables affecting export performance (Namiki 1989).

Fourth, research is often shortsighted in that it focuses on various marketing aspects in relation to export performance and ignores the influence of strategic, tactical, and operational activities in other functions such as production, finance, purchasing, and R&D (Matthyssens and Pauwels 1996). For instance, flexible manufacturing, cash-flow management, just-in-time purchasing, and technology acquisition can crucially enhance export performance. Export performance considered from an explicit marketing frame of reference can result in restrictive and potentially misleading findings, as this assumes a ceteris paribus status to the remaining activities of the firm.

Finally, the direction of associations between the various sets of variables is problematic on three major grounds: (a) it assumes a unidirectional causal relationship (background → intervening → outcome), when the reverse may also be true, as export performance feedback can sometimes reshape intervening and background variables (cf. Hrebiniak and Joyce 1985); (b) it ignores intra- and interrelationships among variable sets, ignoring hidden facilitating and/or inhibiting multiplier effects on export performance; and (c) it views factors' effects on export performance as static rather than evolutionary, without considering the importance of time in influencing relationships among variables (cf. Kaplan and Norton 1993).

## REVIEW OF EXPORT PERFORMANCE MEASURES

Our literature review revealed 42 different performance indicators, of which 23 were economic, 14 noneconomic, and the remaining 5 generic in nature (see Table 2). Despite the large number of export performance measures, only a few were frequently utilized, namely, export sales intensity (57 studies), export sales growth (41 studies), export profitability (20 studies), export sales volume (20 studies), and export sales intensity growth (12 studies). The remainder were each examined in only a few studies (in most cases, 1 or 2), indicating a fragmented and uncoordinated effort to conceptualize and operationalize export performance (Zou et al. 1998). Economic measures were most commonly used, while noneconomic and generic measures were employed less frequently. These categories are discussed subsequently.

### Economic Measures

*Sales-related* measures were most often used to assess export performance, examined by two in every three studies. Fourteen different indicators were found to measure the volume, intensity, or growth of export sales, at either the corporate or product level. The most common measure

**TABLE 2**
**Classification and Frequency of Appearance of Export Performance Measures**

| *Performance Measure* | *Frequency of Use (percentage)* |
|---|---|
| Economic measures | |
| Sales-related | |
| Export sales ratio | 57 (61) |
| Export sales growth | 41 (44) |
| Export sales volume | 20 (22) |
| Export sales ratio growth | 12 (14) |
| Export sales transaction size | 2 (2) |
| Export sales intensity of product | 1 (1) |
| Export sales per employee | 1 (1) |
| Export sales per export manager | 1 (1) |
| Contribution of exporting to sales stability | 1 (1) |
| Export sales volume of new products | 1 (1) |
| Export sales growth of new products | 1 (1) |
| Export sales return on assets | 1 (1) |
| Export sales return on investment | 1 (1) |
| Growth of export sales return on assets | 1 (1) |
| Growth of export sales return on investment | 1 (1) |
| Profit-related | |
| Export profitability | 20 (22) |
| Export profitability growth | 8 (9) |
| Export profit ratio | 5 (5) |
| Export profit margin | 4 (4) |
| Contribution of exporting to profits | 2 (2) |
| Growth of export profit margin | 1 (1) |
| Market share–related | |
| Export market share | 5 (5) |
| Export market share growth | 2 (2) |
| Noneconomic measures | |
| Product-related | |
| New products exported | 2 (2) |
| Proportion of product groups exported | 1 (1) |
| Contribution of exporting to product development | 1 (1) |
| Market-related | |
| Export country/market number | 5 (5) |
| Export market penetration | 2 (2) |
| New market(s) exports | 2 (2) |
| Contribution of exporting to market development | 1 (1) |
| Markets in which exporting was ceased (%) | 1 (1) |
| Miscellaneous | |
| Began exporting | 1 (1) |
| Contribution of exporting to scale economies | 1 (1) |
| Contribution of exporting to company reputation | 1 (1) |
| Years of exporting | 1 (1) |
| Projection of export involvement | 1 (1) |
| Number of export transactions | 1 (1) |
| Generic measures | |
| Perceived export success | 8 (9) |
| Achievement of export objectives | 5 (5) |
| Satisfaction with export performance (specified indicators) | 3 (3) |
| Satisfaction with overall export performance | 2 (2) |
| Strategic export performance | 1 (1) |

in this category (as well as among all other categories) is export sales intensity, which, however, has been heavily criticized on the grounds that it can be affected by factors other than better exporting operations and does not reflect the competitive dimensions of export success (Kirpalani and Balcome 1987). Another widely used and practically useful indicator is export sales growth, which may overstate performance because of price escalation and market growth, or understate performance because of experience curve effects and deteriorating demand (Kirpalani and Balcome 1987).

Also important are *profit-related* measures, with export profitability and growth most researched and often cited as the export firm's ultimate goal (Aaby and Slater 1989). Export profit contribution (percentage of company profits due to exports) received some empirical attention, although this measure suffers from shortcomings similar to those of export sales intensity, while export profit margin and growth were rarely examined due to measuring difficulties. Broadly, this set of measures is open to criticism in that export-related profits may not be known with certainty, especially when firms utilize marginal cost pricing (Samiee and Anckar 1998).

*Market share–related* measures (export market share and growth)[4] were rarely researched. Although these measures can indicate the firm's competitive prowess rather than increased export business due to a growing market (Kirpalani and Balcome 1987), they have been criticized on the ground that actual market share is often difficult to measure, especially among small companies operating in niche markets.

### Noneconomic Measures

Among noneconomic measures of export performance, *market-related* measures were widely examined, although overall they are seldom researched. Five performance measures were identified here, with the number of export countries/markets most widely studied. However, there is persisting debate on export market expansion, suggesting that the number of foreign markets is not an end in itself but is contingent on the specific company, product, market, and marketing factors (Piercy 1982).

*Product-related* measures refer to the number of new products exported, the proportion of product groups exported, and the contribution of exports to product development. Although rarely employed, these measures are justified on the grounds that the product and its performance are key to any export marketing strategy.

Finally, several *miscellaneous* noneconomic measures were also used, each reported in a single study. These measures include the contribution of exporting to economies of scale and company reputation (Raven, McCullough, and Tansuhaj 1994), the number of export transactions (Culpan 1989), and the projection of export involvement (Diamantopoulos and Schlegelmilch 1994).

### Generic Measures

Some researchers chose more collective approaches to export performance measurement. One common measure is based on export managers' degree of satisfaction with overall export performance to determine the net outcome of their respective companies' export activities. Other generic measures are perceived export success and the degree to which export objectives have been fulfilled. Obviously, these are crude measures of export performance, as they cannot adequately capture the construct's domain.

Analysis of export performance indicators yields two sets of studies: those using a single indicator (33 studies) and those employing multiple measures of performance (60 studies), sometimes used for developing a composite index of the construct. Use of multiple measures was more popular, as different measures of export performance capture different facets of the strategic and operational phenomena that underlie it (Thach and Axinn 1994; Walters and Samiee 1990). Moreover, increasingly more export marketing academics and practitioners now believe that performance indicators are more complementary than mutually exclusive (Shoham 1998).

**TABLE 3**
**Export Performance Measurement Approaches: Summary of Studies**

| *Organizing Category* | *Classifier Variable* | *Frequency of Use (percentage)* |
|---|---|---|
| Operationalization | Dimensions of performance | |
| | Effectiveness | 88 (95) |
| | Efficiency | 39 (42) |
| | Adaptiveness | 3 (3) |
| | Frame of reference | |
| | Domestic market performance | 67 (72) |
| | Temporal | 51 (55) |
| | Industry | 11 (12) |
| | Firm's own goals | 11 (12) |
| | Stakeholder perspective | |
| | Internally oriented | 93 (100) |
| | Competitor-centered | 7 (8) |
| | Customer-focused | 0 (0) |
| | Time horizon | |
| | Historical performance | 52 (56) |
| | Current performance | 76 (82) |
| | Anticipated future performance | 2 (2) |
| Sampling | Unit of analysis | |
| | Corporate | 78 (84) |
| | Export venture | 11 (12) |
| | Product/product line | 4 (4) |
| | Scope of analysis | |
| | All firm's export markets | 77 (83) |
| | Geographic region | 1 (1) |
| | Single country | 16 (17) |
| Data collection | Source of data | |
| | Primary data | 89 (96) |
| | Secondary data | 5 (5) |
| | Mode of assessment | |
| | Objective | 74 (80) |
| | Subjective | 47 (51) |

## EVALUATION OF EXPORT PERFORMANCE MEASURES

Export performance measurement for individual studies was evaluated using the analytical framework described earlier.[5] The results of this evaluation are summarized in Table 3. Our literature search revealed eight sets of evaluative criteria, which, based on leading research methodology texts (e.g., Emerson 1983; Kidder, Wrightsman, and Cook 1981; Nunnally and Bernstein 1994), were then organized into (a) operationalization, that is, dimensions of performance, frame of reference, stakeholder perspective, and time horizon; (b) sampling, that is, unit of analysis and scope of analysis; and (c) data collection, that is, source of data and mode of assessment.

### Operationalization

The pertinent literature points to three *dimensions of performance*: *effectiveness*, the extent to which organizational goals and objectives are achieved; *efficiency*, the ratio of performance outcomes to the inputs required to achieve them; and *adaptiveness*, the organization's ability to respond to environmental changes (Kohli and Jaworski 1993; Mahoney 1988). Most studies emphasized effectiveness and, to a lesser extent, efficiency. Surprisingly, despite fundamental differences in domestic and foreign markets and complexity of the international business environment (Czinkota and Ronkainen 1998; Jain 1993), only three studies focused on adaptiveness. This dimension is nevertheless very important insofar as it pertains to exploiting foreign market opportunities, responding to competition, and capitalizing on new products (Styles 1998). Notably, most studies took a unidimensional approach in the conceptualization and measurement of export performance; only one third of the studies looked at more than one dimension.

The *frame of reference* consists of implicit or explicit standards against which performance is assessed, and can be classified as domestic, industry, goal, and temporal (Cameron and Whetten 1983; Fiegenbaum, Hart, and Schendel 1996). Use of a referent in relation to an indicator of performance has been found to significantly affect the performance level (Cameron 1986; Lewin and Minton 1986). *Domestic market* performance was the most common referent, probably due to the widespread use of export sales ratio as a performance indicator; however, domestic market-oriented referents can be problematic in their focus on export performance relative to domestic performance. The second most popular referent is *temporal* and concerns past export performance; this can also be problematic as meaningful interfirm comparisons are difficult to make. Although strategically important, *industry-related* frames, where the firm's export performance is evaluated against that of its direct competitors (domestic or foreign), have been used less extensively. Finally, while *goal-centered* measurement is theoretically sound (Cameron 1986; Lewin and Minton 1986), relatively few studies assessed export performance in reference to the firm's goals.

*Stakeholder perspective* refers to the viewpoint from which the performance measure is used (Cameron and Whetten 1983) and consists of three indicators: *internally oriented*, such as profitability and ROI; *competitor-centered*, including relative sales growth and relative market share; and *customer-focused*, for instance, customer satisfaction and customer retention (Day and Nedungadi 1994; Day and Wensley 1988). All studies under review adopted an internal orientation, while a few considered both internal and competitor-centered measures. Surprisingly, no study used customer-focused performance measures, such as export customer satisfaction, loyalty, and retention. These results are inconsistent with the considerable evidence concerning managers' own performance measurement orientations, where internally oriented representations of competitive advantage are followed closely by both customer-focused and competitor-centered evaluations (Day and Nedungadi 1994).

Using appropriate *time horizons* in performance measurement is vital, as it can maximize the theoretical causal links between independent variables and performance dependants and minimize the influence of "unobservables" (Jacobson 1990). Three distinct time orientations have been identified: *historical*, *current*, and *future* (Chakravarthy 1986; Steers 1975). Most studies assessed current export performance (which necessarily reflects the outcome of past actions), and to some extent this is due to the heavy use of static economic measures to grasp the dynamic changes of the firm and its environment (Madsen 1998). This problem is more evident in the case of accounting-based measures, since they reflect the financial outcomes of past strategy (Day and Wensley 1988). Many studies used historical time orientations to balance short-term export performance fluctuations; notably, while there is little consensus over the number of years to trace, performance is generally measured for the previous 2, 3, or 5 years. Only two studies (Diamantopoulos and Schlegelmilch 1994; Styles and Ambler 1994) used measures of anticipated future export performance. This was somewhat unexpected, given the typical cross-sectional nature of extant studies. Relationships between current measures of independent variables and anticipated future performance measures may allow causality inferences that would be impossible with cross-sectional data.

## Sampling

The *unit of analysis*, that is, the organizational level under investigation (Steers 1975), was widely considered since it affects the form and availability of performance data (Jacobson 1987). For instance, the corporate and SBU foci of most strategic management studies largely explain the use of profitability-based measures of performance (Hofer 1983), while marketing studies' emphasis on the product as the unit of analysis led to the adoption of market-based measures of performance (Bhargava et al. 1994). In the export marketing literature, the overwhelming majority of studies adopted the corporate unit of analysis to assess export performance, focusing on a corporation's total exports. This can be attributed to (a) academics' emphasis on the firm level in contrast to practitioners' focus on the success/failure of individual projects; (b) more secondary data on corporate level performance; and (c) the greater willingness of key informants to disclose information at this broad level (Matthyssens and Pauwels 1996). Very few studies adopted the product as the unit of analysis (individual product or line of products), while more used the export venture (a single product or product line exported to a specific overseas market).

The *scope of analysis* refers to the product-market(s) under evaluation. The specific research scope will affect the choice of performance measures (Cameron and Whetten 1983), particularly in exporting research; for example, defining scope in terms of single, multiple, or all export markets will substantially influence both the absolute and relative market shares of individual firms. The vast majority of studies measured export performance in terms of *total export market* activities, which represents the corporate unit of analysis. Despite increasing integration of world markets, only one study (Becker and Lenberg 1990) concentrated on a particular *geographic region* as the firm's export destination. A small group of studies focused on export performance evaluation in a *single export market*, either specified a priori by the researcher or based on an ad hoc selection made by the respondent.

## Data Collection

The source of data includes primary data generated directly from the firms studied and secondary data obtained from a third party. There has been concern in the performance literature that these data sources may vary in measurement reliability and validity (Dess and Davis 1984; Huber and Power 1985). Primary data are by far the most widely employed, usually collected via mail questionnaires and to a lesser extent through in-depth personal interviews, and most often acquired from a single key informant, usually the manager directly responsible for export activities. Collecting data from these individuals is a relatively cumbersome task, with potential negative implications on response rates, since the role of the export marketing manager is characterized by frequent international travel, often at short notice, and by discontinuous and fragmented work patterns. Notably, no studies provided information from external evaluators (e.g., industry experts) and only few studies used secondary data sources due primarily to the scarcity of reliable sources. Only one study (Schlegelmilch and Ross 1987) evaluated export performance on the basis of both primary and secondary data.

Finally, studies varied in their *mode of assessment*, which refers to the use of *objective* and *subjective* indicators (Dess and Robinson 1984; Venkatraman and Ramanujam 1986). While objective indicators measure performance in a direct and predetermined way, subjective indicators allow the respondent to use a reference point (controllable or otherwise). Approximately three quarters of the studies used objective indicators, while half employed subjective measures. Only one fifth of the studies used both modes of assessment, probably based on evidence that the two are highly correlated (Dess and Robinson 1984; Pearce, Robbins, and Robinson 1987; Venkatraman and Ramanujam 1987). No studies examined the relationship between objective and subjective export performance measures.

## GUIDELINES FOR EXPORT PERFORMANCE MEASURE DEVELOPMENT

This section details guidelines for improving export performance measures and discusses the major implications therein. The framework described earlier, which distinguishes operationalization, sampling, and data collection criteria, will be employed. Table 4 summarizes the proposed guidelines.

### Operationalization

#### Dimensions of Performance

Export performance is a complex phenomenon involving organizational inputs and outputs (Chakravarthy 1986; Lewin and Minton 1986), which are variously viewed and assessed. Thus, by default, performance is a multidimensional construct (Bhargava et al. 1994; Bonoma and Clark 1988). However, our review indicates that while many studies used multiple measures of export performance, few developed multidimensional measures and none explored trade-off interactions among different export performance dimensions, probably because such an analysis fell outside their research scope. Furthermore, few studies explored the adaptiveness dimension of export performance, in contrast to theoretical and empirical developments in the business performance literature. Adaptiveness is theoretically consistent with the resource acquisition perspective of organizational effectiveness (Lewin and Minton 1986) and conceptualizations of strategy in the management literature (Bourgeois 1980) and thus may be viewed as a precursor to effectiveness and efficiency outcomes. As such, a relationship is likely to exist between adaptiveness and other dimensions of performance (Walker and Ruekert 1987). Although increasing the level of methodological complexity, to advance knowledge in the export marketing field, future research efforts must utilize multidimensional conceptualizations and operationalizations of export performance and investigate interrelationships among the various dimensions.

#### Frame of Reference

Our review has revealed a heterogeneity of referents against which export performance is measured. Obviously, this is the result of different research design decisions (Cameron 1986; Ford and Schellenberg 1982) and the subsequent stakeholder perspective adopted (Chakravarthy 1986; Tsui 1990), which can account for variations in reported performance levels (Lewin and Minton 1986). Subject to information availability, this problem can be alleviated using multiple referents simultaneously to compare export performance from several angles. Domestic performance referents can evaluate exporting as an alternative means of strategic growth (Thach and Axinn 1994), while industry-related referents can assess market response to the company's competitive advantage (Chetty and Hamilton 1993). Temporal referents are important in setting internal benchmarks for improvement, and goal-related referents are crucial for evaluating performance from the standpoint of an "internal user," rather than an "external expert" (Lewin and Minton 1986; Miles 1980). In fact, the concurrent use of multiple referents is essential in providing input at different levels of decision: while some referents (e.g., goal-centered) are valuable for monitoring performance in the short-term, others (e.g., industry-related) are critical to the appraisal of the long-term existence of the firm.

#### Stakeholder Perspective

Stakeholder perspective significantly influences the choice of performance indicators in empirical research (e.g., Cameron 1986; Hitt 1988). However, overemphasis on internally oriented indicators leads to serious reliability and validity problems. For instance, in primary data collection, exclusive use of internally oriented export performance measures may attract a disproportionate response from managers in companies employing measurement systems. This may be problematic, as internally oriented managerial representation and measurement are asso-

**TABLE 4**
**Guidelines for Export Performance Measure Development**

| *Major Research Design Issue* | *Major Decision Option* | *Particularly Appropriate For* | *Issue of Concern* |
|---|---|---|---|
| Dimensions of performance | Effectiveness | Goal-centered approaches to performance assessment. | Operationalizing generalizable dimensions of effectiveness. |
| | Efficiency | Examining financial performance outcomes. Studies where objective performance data sources are available. | Ensuring measurement comparability for interfirm comparisons where an objective mode of assessment is used. |
| | Adaptiveness | Examining performance in its environmental context. Indicating future performance on the effectiveness dimension. | Developing valid and generalizable export performance measures on the adaptiveness dimension. |
| | Single versus multiple dimensions | Unidimensional measures: testing specific hypotheses concerning only one dimension of performance. Multidimensional measures: most cases, allowing greater control and testing for interactive effects. | Unidimensional measures: identifying research settings allowing control for other export performance dimensions. Multidimensional measures: developing parsimonious operationalizations that reflect multiple performance dimensions. |
| Frame of reference | Absolute versus relative to competitors (industry) | Absolute measures: using secondary and objective data and when it is difficult to specify a generalizable referent. Relative to competitors: studies where more generalizable referents are available. | Absolute measures may not be interpreted as such by respondents in subjective primary data collection studies; implicit referents may be used by respondents, limiting generalizability. |
| | Absolute versus firm's goals | Absolute measures: research designs where it is difficult to specify a generalizable referent. Firm's goals: studies examining the relationship between decision-making independent variables and export performance. | Absolute measures: in subjective primary data collection, actual interpretation may be based on implicit referents by respondents, limiting generalizability. Firm's goals: firm specificity of export goals may reduce generalizability. |
| | Temporal | Current performance: cross-sectional studies. Past performance: studies where extraneous factors (affecting both past and current performance) can be adequately controlled for, to allow meaningful generalization. | Difficulty in controlling for multiple potentially confounding effects. |
| | Export versus domestic performance | Export performance: single export market studies. Domestic performance: single country-of-origin studies. | Controlling for potentially confounding effects. |
| | Single versus multiple referents | Single referent: studies very specific in nature and/or those where measurement parsimony is required. Multiple referents: more general studies where measurement parsimony is less important. | Single referent: limiting measure comprehensiveness. Multiple referents: measurement parsimony. |
| Stakeholder perspective | Customer-focused | Studies where market performance is the focal stage of the export performance process. | Reliability and validity of subjective assessments regarding customer perceptions. Ensuring consistency in definition of "market" to allow meaningful interfirm comparisons and measure reliability. |
| | Competitor-centered | Maintaining some degree of control for market-based extraneous effects. | Selection of appropriate competitor-based referents, to allow reliable and valid measure development and generalizability. |
| | Internally oriented | Studies where the efficiency dimension of performance is the focus of attention. | Controlling for potentially confounding effects. |

| | | | |
|---|---|---|---|
| Time horizon | Historical performance | Studies where export performance is an independent variable in the research model. | Informant knowledge may be limited in subjective primary data collection. |
| | Current performance | Cross-sectional studies. | Simultaneous collection of data on independent and dependent variables limits understanding of causal relationships. |
| | Anticipated future performance | Cross-sectional research designs aiming to gain insight into the temporal dynamics of the performance process. | Reliability and validity of subjective future-oriented performance assessments. |
| | Single versus multiple time horizons | Single time horizon: static models of export performance<br>Multiple time horizons: dynamic models of export performance. | Single time horizon: limiting insight into the export performance process.<br>Multiple time horizons: measurement parsimony. |
| Unit of analysis | Corporate | Studies where greater sampling availability is instrumental. | Controlling for extraneous factors, particularly in multicountry (export origin and/or export destination) studies. |
| | Product | Testing specific relationships in single-industry samples. | Availability and accessibility of such export performance data. |
| | Export venture | Maintaining greater control over extraneous factors (internal and external). | Developing appropriate selection criteria consistently understood by respondents. |
| Scope of analysis | Single country | Studies where extraneous external factors may be important and difficult to control for. | Potential for reduced sample size, limiting generalizability. |
| | Geographic region | Research designs where extraneous external factors play a limited role. | Lack of market harmonization, limiting control over extraneous factors. |
| | All firm's export markets | Single country-of-origin studies. | Difficulties in adequately controlling for potentially confounding effects. |
| | Researcher specified versus respondent selected export market scope | Researcher specified: studies aiming to enhance control over possible confounding effects.<br>Respondent selected: studies requiring large sample sizes and enhanced response rates. | Researcher specified: limited sample size, response rate, and generalizability.<br>Respondent selected: low level of control over extraneous factors. |
| Source of data | Primary | Developing and using new measures of performance. | Reliability and validity of data, particularly with the use of single key informants. |
| | Secondary | Testing hypotheses relating to existing and well-recognized indicators of performance that may be available from secondary sources. | Availability and accessibility of such data. |
| | Both | Comparison between primary and secondary sources, enhancing confidence in reliability and validity of performance measures. | Logistical and time costs involved in additional data collection. |
| Mode of assessment | Objective | Studies with access to rigorous performance data of this type. | Data availability and accessibility.<br>Generalizability across industries and countries. |
| | Subjective | Research designs where objective data are not available, accessible, or generalizable. | Reliance on manager's perceptions and knowledge of performance. |
| | Both | Comparison of both assessment modes to enhance confidence in reliability and validity of performance measures. | Measurement parsimony.<br>Ease of primary data collection. |

ciated with lower levels of economic performance (Day and Nedungadi 1994). Moreover, this can result in response bias and therefore skew financial performance data, a problem unlikely to be detected by traditional tests of nonresponse bias. Consequently, to offset overreliance on internally oriented indicators, indicators related to competition and customers must be used. Although it is understood that some firms, particularly those of smaller size, do not keep information to support the analysis of all three approaches (company—market—competition), their balanced utilization would provide rounded coverage of the firm's performance requirements in export marketing situation analysis.

#### Time Horizon

One serious shortcoming of the vast majority of export performance studies is the heavy reliance on historical time orientations to evaluate current export marketing actions. Attempts to relate current measures of independent variables to dependent past export performance measures often yield little insight into the direction, significance, and magnitude of causal relationships, especially when the research design is cross-sectional. Similar problems arise with indicators measuring current export performance, which may reflect past company actions and not specifically current export behavior. According to Brown and Laverick (1994), what we need are performance indicators that will measure current actions benefiting tomorrow's performance. This stresses the crucial role of future orientations in export performance measurement, particularly in terms of the company's long-term export goals (e.g., gaining a foothold in difficult foreign markets). Moreover, a dynamic assessment of performance indicators may unmask any trade-offs existing between short- and long-term goals (e.g., the long time a firm needs to obtain high profitability if a high market share strategy is pursued) (Madsen 1998). One way to grasp these dynamics is through the use of longitudinal research, which, however, requires years of organized, sustained, and persistent effort, especially when this is undertaken by a lone researcher (Cavusgil and Nevin 1981). Although costly and time-consuming, longitudinal studies capture the temporal character of and explore cause-effect relationships involved in export performance frameworks.

### Sampling

#### Unit of Analysis

Most studies analyzed export performance at the corporate level. While justifiable in terms of internalization theory (Cavusgil and Zou 1994), this approach is problematic in assessing associations between independent variables and export performance as a dependant variable, since (a) potential intervening influences (internal and external) are likely to affect observed relationships involving export performance and (b) it discounts the variability of performance, that is, some export ventures are successful and others unsuccessful. Analysis at the export venture or product level is likewise less than optimum, as these provide little, if any, insight into the overall, long-term export performance of the company. Experiential knowledge gained from the performance of individual export ventures can enhance the firm's export learning process and ultimately improve corporate export performance (Matthyssens and Pauwels 1996). Shortcomings here may be mitigated through analysis of export venture portfolios,[6] which, apart from measuring individual venture performance, can provide an estimate of the firm's overall export performance (Madsen 1998). To compensate the impracticality of such an approach (especially for large exporters with numerous ventures in foreign markets), analysis of a sample, constituting a specific percentage of the total number of the company's export ventures, is suggested. To ensure maximum representability, major export ventures should be purposively chosen, while a random selection procedure should be applied to the remainder.

#### Scope of Analysis

The prevailing tendency to measure performance of the firm's total export operations is problematic in that it ignores differences among individual markets regarding (a) uncontrollable external environmental forces, such as sociocultural, politico-economic, and technological; (b) market complexity and variations in competition, suppliers, and marketing intermediaries; (c) mode of entry (whether direct or indirect) and targeting methods; and (d) the specific marketing strategy, as well as implementation and control efforts. But even for single export markets, leaving the choice to individual respondents may, first, result in bias owing to the natural tendency to select high-performing export markets, and second, reduce interfirm comparability due to the likely selection of varied export markets (Hofer 1983). While the alternative approach, in which the researcher a priori specifies the export destination, could solve these problems, the external validity of the findings may be limited. Such difficulties can be minimized by adopting the sampling method explained earlier, whereby a representative sample of export markets will be produced (purposively selected major and randomly selected minor) for analysis.[7]

### Data Collection

#### Source of Data

The heavy reliance on primary sources may be prone to method bias and disfavor easy replication, particularly if limited to a single key informant (Huber and Power 1985; Phillips 1981). Bias can be eliminated by (a) determining background differences between responding and nonresponding firms using published data (e.g., geographic location, industry group, and company size); (b) contrasting assessments by different managers in the same organization, a necessity when the responsibility for different export ventures lies with different individuals in a particular company; and (c) comparing firm executives performance evaluations to those of industry experts and whenever possible to direct competitors in export markets. Although secondary sources such as COMPUSTAT permit replication studies, a considerable number of errors have been identified, raising concerns over the quality of these data (Rosenberg and Houghlet 1974; San Miguel 1977). Future research may reveal primary and secondary data as equally valid sources in export performance measurement, provided their inherent limitations are fully understood and minimized (Dess and Robinson 1984; Venkatraman and Ramanujam 1986). Although primary and secondary sources may exhibit dissimilar reliability characteristics for different performance dimensions (Venkatraman and Ramanujam 1987), their complementary use may ultimately provide a more complete measurement of export performance. However, this may not always be feasible, as secondary sources (a) incorporate only a limited number of firms, particularly those of larger size; (b) usually cover only certain performance aspects; and (c) contain data that are not updated.

### Mode of Assessment

Objective assessments are considered reliable in measuring actual performance but can pose measurement problems in export performance evaluations in three ways: (a) company financial statements and reports—the major source of objective data—often neither distinguish between domestic and export business operations nor provide venture information; (b) intrinsic characteristics of certain objective measures may raise comparability concerns (e.g., profitability is affected by such internal accounting practices as depreciation and overhead allocation); and (c) the cut-off point for successful/unsuccessful firms is arbitrarily set by the researcher, usually based on the average of a sample extracted from a heterogeneous population of exporting firms (Styles 1998). Subjective assessments also pose certain problems: (a) the reference point against which actual performance is evaluated is not controllable, and (b) measurement information cannot be restricted to secondary sources alone (Matthyssens and Pauwels 1996). Nevertheless, these have proven more valid in measuring the long-term aspects of export performance (Huber and Power 1985; Venkatraman and Ramanujam 1987) and in determining the mode of performance most likely to influence strategic managerial decision making and actions (Child 1972; Day and Nedungadi 1994). Ideally, export performance research would benefit from some studies using both objective and subjective measures to assess the relationship of one mode with indicators of the other. Such an approach, although desirable, might be hindered by the fact that objective evaluations are not always feasible due to the above-mentioned limited availability of company data.

## CONCLUSION

Our review and analysis of export performance measures confirms earlier assertions that measurement of this construct suffers from serious conceptual, methodological, and practical limitations, hindering theory advancement in the field (Aaby and Slater 1989; Madsen 1987). In most cases, measurement selection is arbitrary rather than scientifically based, and there is a tendency to employ measures used by other researchers regardless of their applicability to the specific research design. This fact, together with problems conceptualizing the background and intervening parameters affecting export performance, raises serious questions about the validity of existing knowledge concerning the drivers of firm-level performance in export markets.

Just as research in the broad exporting literature is typically fragmented and incohesive, the study of export performance measures has been isolated from a wider body of theory. Most efforts to conceptualize and measure the export performance construct are problem driven, resulting in a variety of definitions that reflect the nature of various problems (Shoham 1998). Furthermore, despite theoretical advancements on performance conceptualization and measurement in the business discipline generally and the marketing field in particular, no serious attempt has yet been made to transfer and apply these developments to the study of export performance.

The present study reveals that the choice of export performance measurement approach depends on contextual factors: research method–specific, concerning the ability of the research design to overcome measurement problems; export business–specific, such as the idiosyncrasies of the exporting organization and the environmental factors surrounding the export activity; and target audience–specific, involving the focus of the investigation, along with the different parties interested in export performance assessments (e.g., top management, stockholders, and government agencies). This implies the need for the adoption of a contingency approach in the selection of individual export performance measures to address the idiosyncrasies of the situation at hand, rather than taking a dogmatic view (Kamath et al. 1987).

Export performance indicators seem to be highly interactive both within and between economic and noneconomic measures; in fact, Shoham's (1998) correlation matrix for a set of export performance items revealed a number to be positively or negatively associated. These findings lead us to the conclusions that export performance is a multifaceted phenomenon and that individual measures of performance exhibit unique conceptualization and operationalization characteristics—none of which are inherently superior. The use of multiple measures of export performance is necessary to fully realize the strengths of each indicator, and also minimizes the impact of their shortcomings (Evangelista 1994). The study has also revealed several interrelationships both among export performance measurement criteria (e.g., source of data and unit of analysis) and among certain items within these criteria (e.g., the links among effectiveness, efficiency, and adaptiveness indicators). This highlights the diverse, dynamic, and complex interactions involved in export performance measurement.

Our study clearly indicates the need to improve export performance measurement, taking into consideration the practical difficulties associated with such an endeavor. From an operationalization perspective, the focus should be on using multidimensional conceptualizations and operationalizations of export performance and examining interrelationships among dimensions; adopting multiple frames of reference to reveal the impact of performance from different angles; and utilizing internally, competitor-, and customer-oriented indicators simultaneously. From a sampling standpoint, the emphasis should be on anticipating the impact of export behavior on future performance preferably via longitudinal research; measuring the performance of a sample of export ventures selected, both purposively and randomly, from the firm's export venture portfolio; and examining firms' performance in different export markets. From a data collection viewpoint, the locus should be on complementing primary sources of information with secondary data and combining objective with subjective export performance indicators.

Finally, the study has shown that it is essential to compare empirical findings across, within, and between different conceptualizations and operationalizations of export performance. The evaluative framework developed in this review and our analysis of the extant empirical literature are important first steps toward making such comparisons possible. Improving export performance assessment as suggested by our analysis will enhance commensurability among empirical studies and strengthen confidence in the validity and reliability of findings. These are essential preconditions to a credible international marketing theory that would provide invaluable insights for export policy makers.

## EXPORT STRATEGY IMPLICATIONS

The evaluative framework developed in this study may prove useful both to evaluate and improve company export performance mechanisms. This is important since performance assessment yields valuable information on the effectiveness of export marketing strategies (Chakravarthy 1986), through monitoring intended outcomes and providing diagnostic insights (cf. Kaplan and Norton 1993). Designing optimal export performance measurement systems based on our study recommendations can also enhance organizational learning, considered a significant source of competitive advantage in an increasingly globalized and complex business environment (Cravens 1999; Slater and Narver 1995). The selection of appropriate export performance measures may be key to facilitating organizational learning in foreign market operations (Menon and Varadarajan 1992), in that they provide reliable feedback on export marketing strategy vis-à-vis performance outcomes, enabling managers to take timely corrective actions.

The contingency element inherent in export performance measurement suggests that choice of measure depends on firm-specific conditions. Particular emphasis should be placed on the degree of the firm's involvement in export operations: for instance, sales-related measures may be more important for firms in early stages of export development, while profit-related measures may be more relevant for more export-experienced firms (Shoham 1998). An allied issue concerns the motives underlying the firm's export involvement, such as achieving internal corporate growth, developing a limited or saturated market, and gaining competitive advantage (Leonidou 1995). It would be wise to examine export performance measurement taking into account that these stimulating forces differ not only across firms but also for the same firm over time. For instance, the emphasis placed on the stakeholder perspective (company—market—competition) of export performance measurement will depend on the nature of factors driving a particular firm's export engagement. Furthermore, to gain a rounded perspective on export strategy outcomes, export performance should be measured using a portfolio of indicators, similar to the financial ratio analysis employed in financial accounting systems. Specifically, there is a need to systematically monitor multiple indicators on a regular basis and set standards for their improvement. It should be appreciated that export performance measures are interrelated, either positively or negatively, requiring a cautious approach in judging export performance.

## DIRECTIONS FOR FUTURE RESEARCH

Our study suggests several directions for future research on export performance conceptualization and measurement. First, the theoretically anchored evaluative framework developed for the purposes of this assessment could serve as a starting point for future empirical inquiry targeting firms' export behavior and success. Replication studies would prove useful, particularly if the same framework is applied across research settings controlling for extraneous factors.

Second, knowledge on export performance would be enhanced by transferring concepts developed in other business and marketing disciplines, especially the theory of competitive advantage and the resource-based view. Drawing on developments in these areas, export performance may be seen as a four-stage dynamic process: sources of export advantage, concerning the assessment and development of the resources and capabilities of the exporting firm; export positional advantages, representing the realized export strategy regarding the value delivered to foreign customers and the costs incurred by the exporting firm relative to its competitors; export market performance outcomes, that are customer and competitor responses to the firm's realized export positional advantages; and export financial outcomes, concerning the economic costs and benefits to the exporting firm of the achieved level of export market performance (cf. Day and Nedungadi 1994; Kerin, Mahajan, and Varadarajan 1990). Studies that classify both sources of export advantage and positional advantages achieved in realized export strategy would be particularly valuable in examining export performance dynamics (Piercy, Kaleka, and Katsikeas 1998).

Third, while there is a lack of longitudinal studies in most areas of organizational science, the effect of this phenomenon on export performance knowledge development is particularly damaging. The absence of longitudinal studies inhibits dynamic model building and limits efficacious measurement of performance. Future research providing well-designed longitudinal studies would contribute significantly to export marketing theory and practice by evaluating the long-term stability of the functional relationships between export performance and its determinants (Madsen 1987).

Fourth, because export performance is inherently cross-cultural, it is critical to refine and validate export performance measurements across cultural settings (Styles 1998). This would help build a universally accepted export marketing theory achieved through (a) developing a common set of export performance measures acceptable to a panel of researchers around the world, (b) conducting studies on export performance determinants and outcomes in different countries with the express purpose of comparing and contrasting findings, and (c) setting international standards for acceptable performance levels.

Fifth, the failure to control for potentially important unobservable variables is an issue of concern in the empirical study of export performance. To improve this situation, controlling for possible confounding effects should be an explicit criterion in future research designs. Specifying such design aspects as exporter county-of-origin, industry, export destination, sample selection, and unit of analysis may allow control for some extraneous influences, although additional control variables may be necessary—for example, competitive rivalry in the export market(s)—and their effect on independent and dependent variables should be examined. Furthermore, at the analysis stage of any empirical research project using export performance as a dependent variable, it may be useful to use econometric modeling approaches actually designed to control for the impact of "unobservables" (Jacobson 1990).

Finally, over the past two decades much of the fundamental conceptual development in marketing and competitive strategy has been stimulated by the PIMS database. A similar database specific to export marketing may prove equally incisive in driving research activity, enhancing theoretical development, and influencing management practice in the area. Given the heightened interest in export promotion by governments and trading blocs throughout the world, a suitable database may be a practical possibility under the auspices of an organization such as the World Bank, World Trade Organization, or Organization for Economic Cooperation and Development. Alternatively, it may be fruitful to investigate adding information from business units engaged in exporting to the PIMS database. A central base of information, with a large sample size, standardized measures, and multiple data collection points enabling time-series analyses, along with a secondary information database focusing on firm performance in export markets, would permit enormous improvement in our knowledge of the drivers of export performance.

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## NOTES

1. Within the domain of marketing, exporting has performed a number of roles: (a) a way of disposing the surplus of company products that cannot be sold in the home market (Cannon 1981; Tookey 1964); (b) a mode of entering international markets, the others being licensing, contract manufacturing, joint ventures, and direct investment (Czinkota and Ronkainen 1998; Kotabe and Helsen 1998); and (c) a strategic option for market expansion, by selling the same or new products to markets other than the domestic one (Kamath, Rosson, Patton, and Brooks 1987; Reid 1983).

2. The articles excluded are Axinn, Noorderwier, and Sinkula (1996); Axinn and Thach (1990); Beamish and Munro (1987); Bilkey (1987); Burton and Schlegelmilch (1987); Dominguez and Sequeira (1993); Koh (1991); Miller, Becker, and Crespy (1993); Seringhaus (1993); and Thach and Axinn (1991).

3. Although in the long-term these sales- and profit-related measures are expected to be positively related, in the immediate time span, it is possible that the firm's emphasis on one area might reduce performance in another (Kirpalani and Balcome 1987; Shoham 1998). This is demonstrated, for example, in the classic case where, in an attempt to penetrate foreign markets and increase sales, exporters reduce their prices, which inevitably hurts profits at least in the short run.

4. Some marketing researchers used market share as a measure of either sales or profitability performance (Craig, Douglas, and Reddy 1987; Douglas and Craig 1983). Therefore, to avoid confusion, we have decided to treat this measure as a different subcategory of economic measures of export performance.

5. A detailed table containing a study-by-study summary of the evaluation, along with full citation details, is available from the first author.

6. Madsen (1998) argues that each export venture in the firm's portfolio might have its own goals and targets; for instance, while the purpose of a new export venture may be to contribute to company expansion or acquire initial knowledge on a new business area, old export ventures are more likely to focus on improving cash flow in the organization and gaining a higher return on investment.

7. Kirpalani and Balcome (1987) raise a valid point on the role of market definition in export performance: instead of defining markets in terms of national and geographic boundaries, it would be more appropriate to refer to strategic market segments—consisting of foreign customers sharing similar behavioral, situational, and allied characteristics—requiring different export marketing treatment.

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