Conceptualization and Measurement of Export Performance:  
A Critical Review and a Working Proposition

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Abstract

Export performance is a complex and multifaceted phenomenon. Along the past 40 years several attempts have been made to measure such construct. However, despite all theoretical and empirical efforts, little consensus has been reached on how to conceptualize and operationalize export performance. In this article, a critical analysis is conducted on previous works that have tried to provide general guidelines on how to characterize and measure export performance. However, as will be shown, proposed classification schemes have lacked internal consistency and collective exhaustiveness. Building from their foundations, a new analytical framework is advanced and applied to the identification of export performance dimensions that have been used in recent (1999 through 2004) empirical research. Results are analyzed and compared against previous reviews and analyses conducted by other researchers.

Introduction

Export performance has received a lot of attention both in the conceptual and the empirical literature. However, many of the important constructs in the export management literature have been implicitly ‘borrowed’ from other areas and the field has been very empirically oriented (Madsen, 1996).

The diversity of conceptualizations and operationalizations of export performance may explain in part why findings in the area often seem to be contradictory or mutually inconsistent.

Some researchers have advanced classification schemes that could be of great help. However, as will be discussed hereinafter, these schemes have some limitations because their component categories are not collectively exhaustive and some of them lack internal homogeneity. Thus, the purpose of this paper is four-fold:

- Critically review some of the most cited analytical frameworks for conceptualizing and operationalizing export performance that have been proposed in the literature;
- Propose a new analytical framework that builds upon previous works but is expected to corrected their flaws;
- Apply the proposed framework to the identification of export dimensions used (explicitly or implicitly) in recent empirical research on export performance; and
- Critically analyze the way export performance has been conceptualized and operationalized in recent empirical studies and compare these results with those obtained by similar review works conducted in the past.

Classification systems

Chrisman et al. (1988) drew from specific literature on Biology and Strategic Management and defined the attributes that should be held by sound classification systems. Some of these attributes appear to have been violated by some of the most used or cited analytical frameworks of export performance to date.

A good classification system should include all key characteristics of the phenomenon, which refer to the theoretically and practically important within-group similarities and between-group differences, should be included in the system. Besides, its categories should be internally homogeneous categories, i.e., members of a category must be more similar to each
other than they are to members of other categories, so that generalizations can be valid for its members. Also, categories should be collectively exhaustive categories, so that at each categorical level, every known individual (in this case, performance indicator) must belong to an existing category.

Critical review of the literature

A review of the conceptual and empirical literature on export performance indicates that most of the empirical works have based their conceptualization and operationalization of export performance on guidelines suggested by a few studies. Presented in chronological order, these studies will be analyzed here.

In his review of 43 articles on export management, Bilkey (1978) uncovered important general aspects of export firms’ behavior as well as relevant (perceived) barriers to exporting, although some of his findings were inconclusive.

Behavioral aspects, including development stages of exporting activity, are, no doubt, important to understanding the export phenomenon. However, they do not actually encompass indications of performance, but rather portray a state of affairs (describing the situation of export activities) or a set of obstacles vs. incentives to exporting (that could be explaining factors of observed performance differences, but not actually performance dimensions).

Madsen (1987) was one of the pioneering scholars to actually propose macro-dimensions of performance (most of the research before had been more of an exploratory nature). Based on a review of 17 articles published between 1967 and 1987, Madsen (1987) identified three major underlying dimensions among the multitude of performance indicators that had been used in empirical research: sales, profits and change (in sales and profits). Albeit important, these do not constitute a comprehensive set of key characteristics of export performance. Besides, methodological considerations on how to measure performance (which have important implications on the types of indicators chosen) were not addressed by Madsen (1987).

Aaby & Slater (1989) reviewed 55 studies, published between 1978 and 1988. They identified eight performance “dimensions”, which can be organized in three groups (note that Aaby & Slater never actually proposed such grouping): (i) behavioral / situational (propensity to export, export problems, exporters vs. non-exporters, and barriers to export); (ii) export sales performance (export sales, level of export, export growth intensity); and (iii) overall (perceptions towards export).

The behavioral / situational aspects cannot actually tell success from failure. That is, a firm or its exporting activity cannot be classified as “success” (from a managerial point of view) just because it is exporting versus others not exporting or no longer exporting (a point that was acknowledged by Aaby & Slater, 1989) or because barriers to exporting are lower/higher. These “dimensions” can be criticized (cf. Zou & Stan, 1998) on the grounds that they refer to aspects which conceptually are broader than export performance (propensity to export, export problems, exporter/non-exporter dichotomy, and barriers to export). So, such measures do not actually involve key characteristics of export performance, although they are certainly related relevant circumstances around the export phenomenon as a whole and may be useful to profiling the characteristics that distinguish one type of firms from others.

As for the three export sales performance measures, they represent just a few angles from which export performance can be judged (for example, where would export profits fit in the kinds of measures identified?). So they are not collectively exhaustive categories of the export performance phenomenon.
Chetty & Hamilton (1993) revised 111 published studies of firm-level export performance from 1978 through 1991. “In order to ensure some degree of homogeneity in the dependent variable, [their analyses] exclude the 11 studies which have concentrated on the exporter/non-exporter dichotomy” (p.30). The authors make it clear that performance in exporting is distinct from the decision to enter (and keep) exporting.

In their meta-analysis, Chetty & Hamilton (1993) tried to identify whether the set of 111 revised studies provided evidence that some of the explaining factors uncovered by Aaby & Slater (1989) – related to firm characteristics – were significantly or not associated with export performance. However, Chetty & Hamilton (1993) never made it clear how they treated the eight “dimensions” of performance proposed by Aaby & Slater (1989) – that is, were these “dimensions” grouped (how?) to form a composite indicator of performance or were they treated as substantively similar so that any one “dimension” could serve a substitute for another?

Based on a literature review between 1979 and 1989 and subsequent exploratory and confirmatory factor analyses, Cavusgil & Zou (1994) proposed a unified scale of export (marketing) performance, composed of the sum of the values of four indicators: strategic goals achievement, perceived success, sales growth, and profitability.

Cavusgil & Zou’s (1994) proposal is parsimonious and may be appropriate given the practical constraints (financial and time resources, samples sizes) of most research works. However, it should not be considered a general, all-encompassing framework for the characterization of the export performance phenomenon because it does not incorporate other relevant aspects of the phenomenon (such as the norm against which success should be judged). Besides, the fact that a unidimensional scale could be built out of those four dimensions can be brought into question.

Da Rocha & Christensen (1994) revised 27 studies on export behavior and performance of Brazilian firms published between 1980 and 1990. Several studies used measures related to the behavior of exporters or the state of export activity (e.g., export regularity, export involvement, exporting vs. no longer exporting, export experience). As has already been discussed, these cannot actually be considered measures of performance in a strict sense. However, some also used measures to volume and growth also.

Thach & Axinn (1994) considered that several measures of performance should be used, since there seem to be different aspects to the same phenomenon. They suggested that the set of performance measures to be included in a study would depend on the answer to six questions:

- Why: objectives of the firm and its export goals;
- Who: the unit of analysis (e.g.: products, product lines, SBU's or the whole firm);
- What: the arena for which performance is to judged (e.g.: firm design (structure), firm strategic choices (resource allocation), or firm implementation and control;
- Where: the appropriate industry or market boundaries of the research;
- When: the time period to consider; and
- How: data collecting procedures.

Although one may agree that all these are important questions to answer before proposing a classifications system of performance measures, Thach & Axinn (1994) did not actually move forward to propose such a system. Their suggestions, however, will serve as a baseline for the analytical framework to be advanced in this article.

Based on a review of 15 studies published between 1989 and 1994, Matthyssens & Pauwels (1996) identified five dimensions of export performance:

- Level of analysis: strategic level or scope at which export performance is measured (e.g., corporate, SBU, product-market venture);
• **Frame of reference**: norm against which success is judged, which could be objective, subjective (perceptual), goal-, domestic- or industry-related;

• **Time frame**: time period considered, which could be static (a point in time in the past, the present or the future) or dynamic (change or evolution of the indicators of performance from a given point in time to another);

• **Data collection method**: includes both the source of data (primary vs. secondary) and the collection method itself;

• **Measures**: refers to the criteria along which performance is judged, which could be financial vs. non-financial.

Matthyssens & Pauwels’ (1996) framework uses dimensions related both to conceptual issues (frame of reference, time frame and the measures themselves) and to methodological decisions (level of analysis, data collection method). Their approach does not actually violate any of the attributes defined by Chrisman *et al.* (1988), but for the sake of organization it would be better to explicitly recognize that there are two different general types of dimensions.

The frame of reference dimension, as suggested by Matthyssens & Pauwels (1996), in fact involves two different issues. One issue – related to the objective vs. subjective dichotomy – refers to whether data will be the same whoever the respondent or the data source or whether data will depend on the respondent’s opinion or personal (perceptual) evaluation. The other issue – related to the reference point itself – refers to a comparative base point, below which performance will be considered “bad” and above which it will be considered “good” (Fiegembaum *et al.*, 1996). Such reference points against which export performance would be judged could be domestic operations, industry (competitors) or pre-defined goals (as put forward by Matthyssens and Pauwels, 1996), but they could also include other international operations within the firm or a benchmark (instead of industry average or main competitors’ average).

In the measures dimension, Matthyssens & Pauwels considered only the dichotomy between financial vs. non-financial measures. But one could conceive of other classes of measures such as internal processes (efficiency and effectiveness, although these might be considered drivers of outcomes and not outcomes themselves as would financial indicators), innovation and learning (Kaplan & Norton, 1996), behavioral / situational (albeit the criticisms already mentioned before) and also overall measures of satisfaction or perceived success which have been used in many studies of export performance.

So, Matthyssens & Pauwels’ (1996) dimensions lack, to some extent, internal homogeneity as well as collective exhaustiveness.

Madsen (1998) investigated what he called ‘managerial maps of export performance’ and identified four dimensions: *objective vs. subjective* (perceptual); *absolute vs. benchmarking* (relative measures); *time orientation* (short-term financial vs. long-term strategic measures); and *market-related vs. purely economic*.

Since Madsen (1998) aimed just at uncovering managerial judgment of export performance, no considerations about methodological issues were raised, although one might argue that these are also important. For example, the unit of analysis the manager uses to make his judgment can affect not only the measures he will prefer but also his perception about the level of performance.

Madsen (1998) seems to consider that financial measures are always short-term oriented, whereas in fact one could also measure expectations of future returns (Barney, 1996). Besides, short-term measures can include other than just economic measures; and long-term measures could include not only strategic but also financial measures. As for the strategic measures, they would fit well together with the market vs. economic space, being maybe a third class of measure.
Adding other classes of measures – such as overall and behavioral / situational – would enrich Madsen’s (1998) managerial maps. Moreover, some of the dimensions could have been disaggregated in further detail.

So, Madsen’s (1998) dimensions violate, to some degree, the internal homogeneity and the collective exhaustiveness criteria.

Shoham (1998) empirically explored a conceptual framework that had been suggested by other authors, based on three “dimensions” – sales, profits and change (Madsen, 1987) – and the dichotomy objective vs. subjective measures. Previous arguments would lead to say that sales and profits are part of class of measures dimension while change (in sales, profits or other measures) is part of a temporal orientation dimension, which would include both static measures – taken at a given point in time – as well as dynamic (change in) measures, be in past change or (expected) future change. Shoham (1998) did not propose any new analytical framework, but attempted to test a previously proposed model of export performance which is flawed, since it is not collectively exhaustive (because other types of measures besides market and economic ones are not considered) and it did not actually include other key characteristics of the phenomenon under analysis, such as relative evaluation.

Zou & Stan (1998) revised the empirical literature on export performance between 1987 and 1997 and identified the following dimensions and sub-dimensions from 50 articles: financial measures (sales, profit, growth); non-financial measures (perceived success, satisfaction, goal achievement); and composite scales.

Growth should not be considered another type of financial measure, since one can conceive of change for other types of measures also (e.g., market measures or strategic measures). There are also other types of non-financial measures, such as market, strategic and behavioral / situational measures. Zou & Stan’s (1998) sub-dimensions of non-financial measures would better be grouped under the label of overall measures. Other dimensions have not been explicitly included in their framework, for example, absolute vs. relative and objective vs. subjective.

Zou & Stan (1998) also identified studies that used a composite scale to measure performance, that is a measure composed of the aggregation of other measures. However, they fell short of investigating whether such aggregation was based on reflective indicators (where the indicators are considered effects of the performance phenomenon) or formative indicators (where indicators are considered causes of the phenomenon) – a point that was explicitly discussed in a later work by Diamantopoulos, 1999).

Zou et al. (1998) proposed a unified scale of export performance, composed of three dimensions: financial, strategic, and satisfaction. The individual dimensions in Zou et al.’s (1998) scale are actually composed of measures of distinct nature. For example, their financial dimension includes profitability, sales volume and growth indicators. The strategic dimension includes global competitiveness and strategic position (strategic indicators, all right) but also global market share (although it can be considered strategic under some line of reasoning, it would fit better under a market label). The satisfaction dimension actually comprises overall measures elicited from some subjective (perceptual) data source.

It is questionable whether a composite scale could actually be created that would adequately reflect performance differences among firms or export ventures. Extrapolating Ramaswamy et al.’s (1996) considerations about the measurement of the degree of internationalization, it can be argued that if the distinct performance indicators have diverse strategic and operational implications, then it would not make much sense to aggregate them into a single measure. Ramaswamy et al. (1996) consider that it might not be justifiable to assume
that poor performance along some indicator could be compensated by good performance along another.

Katsikeas et al. (2000) revised 103 studies (93 non-redundant), along the 1964-1998 period, and identified 42 performance indicators which they grouped under three headings:

- **Economic** (sales-related, profit-related, market share-related);
- **Non-economic** (market-related, product-related and miscellaneous); and
- **Generic** (perceived export success, achievement of export objectives, satisfaction with specific indicators of export performance, satisfaction with overall export performance, strategic export performance).

Besides, they classified the indicators along three organizing categories, eight classifier variables (called ‘dimensions’ in the terminology employed in this article) and respective sub-dimensions (the terms used by Katsikeas et al. (2000) are preserved):

**Operationalization**
- **Dimensions of performance**: effectiveness, efficiency, adaptiveness;
- **Frame of reference**: domestic market, temporal, industry, firm’s own goals;
- **Stakeholder perspective**: internally-oriented, competitor-centered, customer-focused;
- **Time horizon**: historical, current, anticipated future;

**Sampling**
- **Unit of analysis**: corporate, export venture, product / product line;
- **Scope of analysis**: all firm’s export markets, geographic region, single country;

**Data collection**
- **Source of data**: primary, secondary; and
- **Mode of assessment**: objective, subjective.

Katsikeas et al.’s (2000) framework is no doubt much more fine-grained than other previously advanced classification systems. A few comments are in order, though.

Their primary classification criterion (economic, non-economic, generic) can as a matter of fact be considered different classes of one dimension that could be labeled classes of measures. The market share-related measures, although they affect financial performance, seem to fit better under a non-economic (market) label. The miscellaneous category under the non-economic heading comprises measures that should actually be classified under properly named labels, since they are either behavioral in nature (e.g.: began exporting, years of exporting), or market-related (e.g., number of export transactions), or economic in nature (contribution of exporting to scale economies) or else strategic measures (e.g., projection of export involvement). As for the generic measures, they comprise both overall measures (e.g., perceived success, achievement of objectives or satisfaction-related measures) and strategic measures (e.g., strategic export performance).

Effectiveness measures refer to “the extent to which organizational goals and objectives are achieved” (Katsikeas et al., 2000, p.499) and, as such, could be labeled overall measures to keep uniformity with more usual terminology. Efficiency measures (some ratio of outcomes to inputs) should be detailed into different aspects, for example, financial results and internal processes. Adaptiveness measures, which were found in only three studies, are somehow similar to the innovation and learning perspective of the balanced scorecard framework (Kaplan & Norton, 1996) – either nomenclature could be used.

The temporal sub-dimension under the frame of reference dimension measures a firm’s current performance against its own past performance. This kind of comparison is not of the same nature as those of domestic market, industry or firm’s goals, which are taken at the same temporal moment. So the temporal sub-dimension reflects growth measures and should actually be
grouped under some temporal orientation label. As for the others, it would seem more logical to consider the absolute vs. relative dichotomy.

Under the time horizon dimension, Katsikeas et al. (2000) did not make it explicit that there are two aspects under consideration: the point of time (past, present, future) to which the measures refer and also the static (a single point in time) vs. dynamic (change between two points in time) nature of the measures.

Including the viewpoint of the different stakeholders who will be affected by specific performance results is interesting and has also been suggested by other scholars in the Strategic Management literature (Chakravarthy, 1986; Barney, 1996; Fiegembaum et al., 1996). However, considering the competitors as a type of stakeholder (as if the firm had to care for their well-being) seems to be controversial with the “beat the competitor” view that drives most managers. In fact, competitors should be (and in fact already are) included under the frame of reference dimension.

The unit of analysis relates to the part of the firm’s operations whose performance is to be evaluated. The scope of analysis refers to the destination markets of exports. The two dimensions could actually be merged under a single one involving (part of) the firm–market combination.

Leonidou et al. (2002) conducted a meta-analysis of 36 studies of export performance, spanning from 1964 through 1998. They were able to identify six major dimensions of export performance (export sales volume, export sales growth, export sales intensity, export profits level, export profit contribution, and export market share), plus an overall dimension, a composite measures dimension, and an “other” dimension. They also noticed that some studies used objective while others preferred subjective (perceptual) evaluations of performance.

It should be noticed that Leonidou et al. (2002) started their considerations by presenting a general synthesis of export performance models where export performance is pictured as either economic or non-economic. As they moved on to a more fine-grained classification, they detailed what could be specific sub-dimensions of those two general headings. But, some measures that were left under the “other” category (such as return on investment, export satisfaction, perceived success, perceived export growth, perceived profitability, and perceived market share) could easily have been accommodated under specifically named dimensions in most of other classification systems that have been suggested in the literature. Given the fact that some of these are frequently found in export research, it would be recommended to include one more, properly named, category.

The composite measures dimension deserves some comments. It is in fact a result of the aggregation of other individual measures, which would first be classified under some of the other dimensions. In fact, composite measures involve one first decision – which individual measures to use – and an additional decision – to aggregate (and how) or not to aggregate them into a consolidated scale. So, it could be considered one methodological dimension that could be labeled structure of the indicators.

Proposition and application of a new analytical framework

The review of classification systems of export performance – some rather simple, some quite sophisticated – indicates that the complex and multidimensional nature of the export performance phenomenon has been acknowledged along the years. This evolution, notwithstanding, there are still some flaws in the analytical frameworks that have been proposed: some of them are incomplete because they do not include some key characteristics of the export performance phenomenon; and all of them fail to fully conform to criteria of internal homogeneity and collective exhaustiveness. So, a new model – that builds heavily upon
Matthyssens & Pauwels’ (1996) and Katsikeas et al.’s (2000) – will be advanced. The model shall include two major groups of dimensions: conceptual (definition and characterization of the phenomenon) and methodological (data collection and treatment of the measures).

The conceptual dimensions include:

**Classes of measures.** Economic (profitability, sales etc.), market (reputation, customer satisfaction etc.), behavioral / situational, strategic (which involve attainment of broader, usually longer-term, objectives, such as developing competencies, retaliating a competitor, entering business networks), overall evaluation (e.g., perceived success, satisfaction with export activities, confirmation of expectations etc.), and others (which might include: internal business processes, innovation and learning, social or environmental measures). Although behavioral / situational measures should not be considered strict measures of performance, but rather an indication of a pattern of behavior or of a state of affairs, such a sub-dimension will be kept in the newly proposed framework because it has frequently been used in the past. This way, it will be possible to compare the evolution of the use of such dimension.

**Frame of reference.** Absolute (reporting the value itself); or relative, that is, “good” or “bad” depending on the value of some point of reference which could be: industry or main competitors’ average, some benchmark, domestic operations, other international ventures of the firm, or pre-set goals.

**Temporal orientation.** Static (measured at a given point in time) or dynamic (indicating change between two periods of time). Both static and dynamic measures can refer either to past or future time.

Among the conceptual dimensions, some scholars (e.g., Chakravarthy, 1986; Barney, 1996; Fiegenbaum et al., 1996) would include stakeholders’ viewpoint (e.g., stockholders, customers, employees, local community etc.). However, since stakeholders’ viewpoint and classes of measures seem to be strongly related (e.g., financial ↔ stockholders, market ↔ clients), and for the sake of parsimony, only classes of measures shall be considered here.

The methodological dimensions include:

**Unit of analysis.** Since there seems to be a strong one-to-one relationship between two of the dimensions proposed by Katsikeas et al. (2000), unit of analysis and scope of analysis (e.g., corporate ↔ all markets, export venture ↔ single country), for the sake of parsimony, those will be merged into a single one, which will be named unit of analysis and will refer to (part of) the firm–market combination: corporate (all firm’s markets), SBU (or product / product line in all firm’s markets), all firm export ventures (in all export markets), specific export venture (specific product-market combination).

**Mode of assessment.** Since the mode of assessment itself and the source of data are closely related, they will be combined into a single dimension. Thus, it is possible for the data to be considered objective (supposed to be the same no matter the specific source or whom reports it) – collected either from secondary sources or primary (self-reported) sources – or subjective (dependent upon the personal opinion or perception of the respondent) – collected either from primary sources (be it self-evaluation or evaluation by competitors or by external experts) or from secondary sources (case material).

**Structure of the indicators.** The totality of the performance indicators collected can be arranged in different combinations, be it for interpretative purposes or for use in statistical procedures. A researcher may use just one single indicator (an approach that has several drawbacks) or multiple independent indicators. Or else, indicators can be combined to form composite scales, which could be reflective in nature – whereby the (observed) indicators of performance are considered or assumed to be effects of a performance (latent) factor or
formative – whereby the (observed) indicators are assumed to “cause” performance (see Diamantopoulos (1999) for details). A researcher can use either one single scale, which would consolidate all performance indicators or multiple scales, which would each represent a combination of a group of indicators. Or the researcher can use simultaneously composite scales together with “independent” indicators.

A further methodological dimension, called format of data, could be considered, which would include (Ginsberg, 1984): narrative data obtained from investigative reports or case studies; qualitative data expressed by nominal or ordinal scales; and quantitative data which can be represented by interval scales or by ratio scales. Ginsberg (1984) mentions that qualitative data rated on discrete ordinal scales can be treated as quantitative data. Given the fact the great majority of the empirical studies on performance use statistical techniques to analyze the data, this extra dimension would add complexity to the analytical framework but little discriminating power among the studies (even though it might be useful to compare among studies from different periods of time).

The search for the articles to be analyzed here started with the leading journals in the area, but due to unavailability of some physical and online sources, in some cases not all issues were covered. Following “leads”, some other articles were included, besides those in the journals cited.

<table>
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<tr>
<th>Journal</th>
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<td>Journal of International Business Studies</td>
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Table 1 – Journals Reviewed

On Table 1 the different views of export performance used in some recent (1999-2004) empirical studies are analyzed along the six dimensions suggested (recall that previous reviews had gone as far as 1998). To be included in the analysis, a study had to be empirical and have export performance (whatever the format) as a dependent variable. In some cases, the classification of the performance indicators along some dimension could not be clearly identified and had to be inferred by the coder (this is shown in shadowed boxes in Table 2). Some performance indicators, such as sales and export intensity (ratio of export sales to total sales), have either been classified as economic or market according to each researcher’s preference. Even though sales involve a market component (volume), it seems to fit better under the economic label. Market share, however, was classified as a market indicator.

Though far from exhaustive, the set of studies revised in Table 2 gives a fair account of export performance definition and operationalization in recent research and may be seen as an indication of trends in the field.
<table>
<thead>
<tr>
<th>Studies</th>
<th>Classes of Measures</th>
<th>Frame of Reference</th>
<th>Temporal Orientation</th>
<th>Unit of Analysis</th>
<th>Mode of Assessment</th>
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Table 2 – Conceptual and Methodological Dimensions of Export Performance Employed in Empirical Research

Frame of Reference
Relative: a = industry or main competitors average; b = benchmark; c = domestic operations; d = other international ventures in the firm; e = pre-set goals or expectations; f = not explicitly stated by the original author(s).

Temporal Orientation
Static or Dynamic: h = recent past; i = future expectations.
Time span: 1 = one year; 2 = two or three years; 3 = four years of more; 4 = not explicitly stated by the original author(s).

Mode of Assessment
Objective: p = from secondary sources; q = self-reported.
Subjective: r = self-evaluation by managers; s = evaluation by competitors; t = evaluation by external experts; u = case material.

Type of indicators
Reflective or Formative: w = one single composite scale; x = multiple composite scales.
Analysis of the results

Classes of measures

The majority (75%) of the studies reviewed used more than one class of measures, indicating a tendency to recognize the multifaceted nature of the performance phenomenon. Economic measures dominate research (only one study (6%) did not use economic measures), as had been noticed by Katsikeas et al. (2000). However, the fact that six (38%) of the studies used some overall measure of performance can be seen as a further recognition of the complex nature of the phenomenon and the need to somehow come to some aggregated evaluation from a great variety of aspects involved. Attainment of strategic objectives was evaluated in five (31%) of the studies, indicating that researchers acknowledge that exports can be driven by other than just short-term economic reasons.

It is interesting to notice that none of the sixteen studies used any behavioral / situational measure. Although the sample of studies reviewed here is far from exhaustive, this seems to indicate that researchers have come to understand that ‘propensity to export’ or the ‘exporter vs. non-exporter’ dichotomy (or other measures in the same line) are not actually performance indicators – a tendency that could already be seen in Katsikeas et al.’s (2000) review and which is an important contrast against earlier (pre-1990) works. Also none of the studies used other classes of measures (for example, internal business processes, innovation and learning, social or environmental).

Frame of reference

Ten (63%) of the studies used only an absolute reference, four (25%) used only a relative reference, while just two (13%) used both references. This seems to be in conflict with the fact that, from a managerial standpoint, performance ought to be judged also against what competitors have achieved (“have we fared better than them?”) or against other alternatives of resource allocation (“do our export activities seem to be a good application of our firm’s scarce resources?”). Among the six studies that used a relative reference, two compared against competitors, one against domestic operations, one against pre-defined goals, while two used both a competitors- and a goal-related reference.

These results are distinct from those obtained by Katsikeas et al. (2000), who found that the majority of the studies had used some relative reference – specifically 72% of their studies had employed a domestic-related frame of reference.

Although the present results should be viewed with care given the relatively smaller sample, they nonetheless merit further investigation because if such a tendency to favor an absolute reference is under way, this should be quickly identified and corrected.

Temporal orientation

All but one (94%) of the studies measure performance in a static way, that is, at a given point in time (past time in 14 out of 15 studies, while only one measured both static past and static expected future performance), but six of the studies (38% of the total) used also a dynamic orientation, measuring the degree of change in performance measures, while one (6%) used only a dynamic orientation. Katsikeas et al. (2000) reported that 55% of the studies reviewed by them had used a “temporal-related” frame, which can be interpreted to mean change as compared to past performance – a number not much different from the 44% (seven studies) found here.

It is interesting to notice that only two studies (13%) evaluated future prospects of performance – one measured firm’s value (by means of its shares price in capital markets) while
one evaluated whether managers expected future performance to be better or worse than past performance. This is more than the 2% figure reported by Katsikeas et al. (2000). Given the fact that most present decisions and actions taken today will only produce results in the future, measures of expected future performance should be employed more frequently.

In terms of the length of time considered, six (38%) of them looked at one year into the past, three (19%) considered two or three years back, two (13%) considered four years or more, and five (31%) of them did not make it explicit the specific time span – but one could imply that, in these cases, a one-year time period would implicitly be considered, so 11 (69%) of the studies could be said to have looked at one year into the past. A recommendation is in order: researchers should make it clear (both for respondents and for readers) what time period is to be considered.

**Unit of analysis**

Six studies (38%) did not make it explicit which unit of analysis was to be considered, a practice that may impair the reliability of the results since different respondents may infer a distinct scope of operations. While an SBU-, product- or product line-related scope seems not to have been considered by any of the studies, the other possible units of analysis were fairly distributed among the studies: specific export venture (38%), the whole firm and all export ventures (31% each). This is an important difference from Katsikeas et al.’s (2000) review, where 84% of the studies had considered a corporate (whole firm) delimitation.

**Mode of assessment**

Four studies (25%) used simultaneously an objective and a subjective mode of assessment, while four (25%) used only an objective and eight (50%) used only a subjective mode of assessment. When data supposed to be objective were collected, two (25%) of the occurrences used secondary (public) data sources, but most of them (six or 75%) relied on self-reports by managers. As for data considered subjective (perceptual), only the firm’s managers’ opinions were collected – that is, competitors or outside experts were not involved.

Katsikeas et al. (2000) reported that 30% of their studies had used both modes of assessment, while 80% had used at least the objective mode and 51% had used the subjective mode. Compared to the figures found in the present review – respectively, 25%, 50%, and 75% - there is an indication that researchers may be tending to resort to subjective assessments more frequently. This may be due to the recognition that published financial data have been criticized on their supposed ‘objectiveness’ (Hirschey & Wichern, 1984), accounting records may not be kept at such a disaggregated level as the export venture (Leonidou et al., 2002), and managerial actions are driven more by perceptions than by ‘cold’ numbers (Matthyssens & Pauwels, 1996).

**Indicators structure**

Only two studies (13%) used just one indicator of performance, and two others (13%) employed multiple (more than one) indicators but did not aggregate them. The great majority (12 or 75%) employed scales (an aggregation of multiple indicators), either in isolation or together with “independent” individual indicators. Since composite scales have several advantages over individual indicators (Hair et al., 1998), this is indicative of the methodological precautions that seem to be in use in the field. However, none of the studies made it clear whether the indicators that formed the scales were seen as reflective or formative. Scales were inferred to be driven by a reflective approach when tests of reliability base on Cronbach’s alpha or tests of unidimensionality were used to judge their “validity” and to be driven by a formative approach otherwise (Bollen & Lennox, 1991).
Given the fact that performance is a multidimensional phenomenon, explicit care has to be taken when aggregating indicators into a composite scale (Bollen & Lennox, 1991), but such concerns seem not to have been clearly addressed in the studies of export performance to date.

**Suggestions for future research**

Application of the proposed framework to a more thorough set of recent empirical works is necessary before final conclusions can be drawn. Moreover, since the search criteria employed here would probably find research on firms still exporting, it is possible that the framework may have been influenced by ex-post selection bias (survival bias, cf. Marsh & Swanson, 1984).

Besides, it would be interesting to investigate whether failure could (or should) be measured by the same rules as success. Madsen (1989), Cavusgil & Zou (1994) and Matthyssens & Pauwels (1996) have questioned whether success and failure should be considered two ends of a unidimensional scale or should be conceptualized as two discrete phenomena of distinct nature. Reflections on the differences between exporters, ex-exporters and non-exporters and also among different degrees of export involvement might shed light on the criteria used by managers when they decide to enter, expand or withdraw from a given export venture. Success at the export venture level may not necessarily mean success at the corporate level (Thach & Axinn, 1994). Maybe a specific analytical framework would be more appropriate to understand failure in export ventures.

**Final considerations**

That a poor conceptualization of the export performance phenomenon can be one of the reasons why research has reached so much contradictory findings has been recognized more than a decade ago (Aaby & Slater, 1989). However, despite efforts to provide guidelines and orientate the conceptualization, operationalization and measurement of export performance, there are still many pieces of research that have used very simple (maybe too simple) definitions and procedures, which do not adequately capture the multifaceted nature of the phenomenon.

The review of recent studies, however, reveals some improvements both in conceptual and methodological aspects. Researchers seem to be considering more strategic (other than just short-term economic) concerns along their evaluation of export performance. At the same time, behavioral / situational measures have lost their “importance” as performance indicators. The export venture seems to be now the preferred unit of analysis, but one should not forget that “overall” success cannot be judged only at the export venture level, since the contribution of exports vis-à-vis their consumption of corporate resources have to be weighed against other investment possibilities in the firm’s portfolio. Subjective measures have been used more frequently, maybe reflecting the change to the export venture as the usual unit of analysis and the fact that objective data cannot usually be found at such a disaggregated level. Also, as recognition of the multidimensional nature of the export performance phenomenon, researchers have tended to use multiple (instead of single) indicators and also composite scales.

The above developments notwithstanding, there are still some points that merit attention. Few researchers have measured the future implications of past decisions (be in static terms or in terms of the expected change in anticipated future results). Furthermore, considerations as to dimensional aspects of the composite scales and to the structure of their component indicators (effect vs. causal indicators) have not been explicitly addressed. Also, researchers should be advised to make their research design decisions (both conceptual and operational) more explicit – or else the reader will have to infer from context and, worse still, respondents will have to come
up with their own interpretation of what is being asked from them, casting doubt on the reliability of the results.

Conceptualization is the first step in the process of understanding a phenomenon. This paper emphasized the complex and multidimensional nature of the performance phenomenon. Each dimension and each type of performance indicator tells just a part of the whole story and has its own pros and cons. The researcher should thus have a clear picture of their nature before choosing which to use and before drawing conclusions and generalizations from research results. Venkatraman and Ramanujam (1986) advise that:

“…researchers should collect data on indicators of business performance either using an a priori classification which recognizes the dimensionality issue, or they should explicitly test the dimensionality of their conceptualization of business performance” (p.807)

For researchers and academicians a conceptually sound framework and appropriate measurement techniques are paramount in order to ensure validity of the results, as well as to make inference and generalizations and to draw normative orientation. As Venkatraman & Grant (1986) have put it: “… a strong linkage between concepts and their measures enhances theory development…” (p.71). Although there does not seem to be a standard all-purpose framework for measuring export performance, some guidelines for a multi-dimensional approach were presented here. Of course, each specific study shall choose a parsimonious set of performance indicators. Robustness of conceptualization and consistency of terminology and classification, however, should facilitate comparison among studies, thus contributing to the conceptual and empirical advancement of the field.

References


