# How to Determine Subsidiary Performance Based on the Internationalization Strategy

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*While international subsidiary performance is a principal outcome variable for practitioners and academics alike, there is relatively little consensus on how it should be measured. After evaluating prior efforts to measure foreign performance, the notion that firms should select different measures of performance based on each subsidiary's internationalization strategy is proposed. Three testable propositions suggest different weightings of the financial, operational, and overall effectiveness dimensions based on five internationalization strategies.*

## INTRODUCTION

Over the past half century, firms have become more internationalized by increasing their proportion of assets, employees, and eventually revenue abroad (Fredriksson, 2003). Yet the degree to which this internationalization movement is contributing to overall performance of the firm is questionable (Garbe & Richter, 2009). In order to better understand the contribution of this global movement, firms need to know how they are performing in international markets. We examine whether multinational enterprises (MNEs) can derive a multidimensional approach to subsidiary measurement based on their strategy. Being one of the most relevant firm level rubrics in the science of management (Venkatraman & Ramanujam, 1986), overall firm performance has been wildly researched in an attempt to clearly identify it constituents (Combs, Crook, & Shook, 2005). The purpose of this study is to identify how a firm's strategy affects the way it measures its subsidiaries' performances.

An assumption in international business research is that overall MNE performance is different than international subsidiary performance (Pangarkar, 2008). This assumption is based on two notions. First, overall MNE performance and international subsidiary performance are two distinct levels of analysis. As Kozlowski and Klein (2000) demonstrate, mixing levels of analysis is a common source of the ecological fallacy. Second, the strategy of the overall MNE may be different than its international subsidiaries, resulting in different performance measures. For instance, Embraer's (the largest Brazilian aircraft manufacturer) overall firm strategy is sustainable profit growth (Embraer, 2009), and therefore considers profit growth as the primary performance measure. However, its subsidiary in China has the strategy of entering the Chinese market, and thus uses market share as its principal performance measure (Amato & Lores, 2009).

While it seems apparent that overall MNE and international subsidiary performance are different, there is a lack of consensus among academics on how to measure international subsidiary performance (Hult, Ketchen Jr, Griffith, Chabowski, et al., 2008). The second purpose of this article is to consolidate past efforts to measure international subsidiary performance and develop a dynamic approach based on the subsidiaries' strategic initiative. In so doing, we propose a multidimensional measurement paradigm.

The paper is structured into three sections. The first section presents the results of the literature review on international subsidiary performance. The review illustrates the dimensions and sources of performance assessment. Next, a paradigm of international subsidiary performance is developed based on the subsidiaries' strategy, resulting in three propositions. Finally, the third section discusses the implications of the proposed approach, possible limitations, and avenues for future research.

## LITERATURE REVIEW AND PROPOSITIONS

### Towards a Multidimensional Paradigm of Subsidiary Performance

International subsidiary performance is considered a control tool, both for academics and practitioners, used to evaluate the outputs of a foreign affiliate in a certain period of time (Schmid & Kretschmer, 2009). Besides being a method of assessing the degree of success of firms in their internationalization process, this type of control tool also determines future subsidiary resource allocation (e.g., investments, employees, and R&D). Since the measurement of subsidiary performance is so relevant to the firm, understanding its nuances is thus important.

Different measures can be employed in the assessment of performance (i.e., profit growth, increase in market share, and satisfaction) with the final objective of understanding the degree of the firm's success in achieving its strategic goals of internationalization. Many authors have called for a multidimensional approach to subsidiary performance, stating that simplistic measures (i.e., purely financial) narrowly reflect performance (Pangarkar, 2008). In other words, unidimensional measures shed very little light on the antecedents of performance (Hult, Ketchen Jr, Griffith, Chabowski, et al., 2008). "A key problem with narrow measures is that they may not be representative of firm performance, especially if objective function of the firm is broad" (Pangarkar, 2008, p.476).

#### *Dimensions of Performance Assessment*

Hult et al. (2008) conducted an extensive review of how subsidiary performance has been used in international business research. They concluded that there are three main performance dimensions – *financial*, *operational* and *overall effectiveness* – which could be assessed both objectively and subjectively.

The financial dimension is comprised of "indicators that are assumed to reflect the fulfillment of the economic goals of the firm" (Venkatraman & Ramanujam, 1986, p.803). They include both accounting-based and market-based measures. Some examples of measures included in the financial dimension are: return on investments (ROI), return on assets (ROA), return on equity (ROE), return on sales (ROS), profit margin, earnings per share, stock price, sales growth, growth of foreign sales, and Tobin's Q.

The operational dimension includes all non-financial factors that may have an impact on performance (Hult, Ketchen Jr, Griffith, Finnegan, et al., 2008). It includes both product–market outcomes (i.e., market share and efficiency) and internal process outcomes (i.e., productivity and employee satisfaction).

The overall effectiveness dimension is formed by more holistic measures and indicators such as perceived overall performance, achievement of goals, and perceived overall performance relative to competitors. It refers to a wider conceptualization of performance and encompasses the two former performance dimensions (Hult, Ketchen Jr, Griffith, Finnegan, et al., 2008).

#### *A Multidimensional Paradigm of Subsidiary Performance*

In order to extend the work by Hult et al., (2008), we have conducted a complimentary literature review in order to further categorize prior work. The findings of our literature review, presented in Table 1, show that financial measures are the most commonly used in the study of subsidiary performance.

While 29 articles (out of 30) have used financial performance, 17 have used operational measures, and 13 have utilized the overall effectiveness dimension. Within the financial dimension, sales based measures were the most common (40%), market share appeared the most in the operational dimension (33%), and performance relative to competitors was the most recurrent for the overall effectiveness dimension (40%).

**TABLE 1**
**COMMONLY USED SUBSIDIARY PERFORMANCE MEASURES**

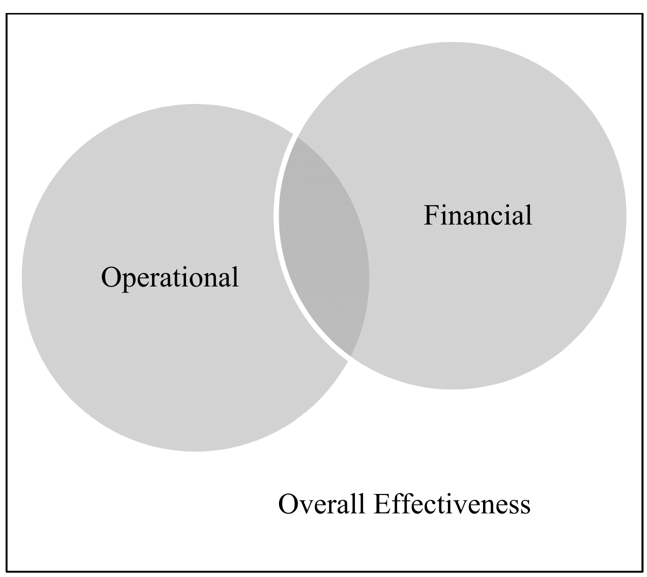
| *Financial performance* | | *Operational performance* | | *Overall effectiveness performance* | |
|---|---|---|---|---|---|
| Sales based | 19 | Market share | 10 | Perf. relative to competitors | 6 |
| Profit based | 15 | Product/service quality | 5 | Reputation | 3 |
| ROA/ROI | 9 | Productivity/HMR development | 4 | Perceived overall perf. | 2 |
| ROE | 1 | Market Access | 3 | Set objective performance | 2 |
| Others | 3 | Marketing | 2 | Satisfaction | 1 |
| | | Others | 6 | Exit rate | 1 |
| Total (n)* | 29 | | 17 | | 13 |

* The total (n) does not sum to total number of measures used per performance type since some papers used more than one measure of the same type.

Although the financial dimension is the most used of the three categories, the majority of studies (67%) combine a financial measure with one or more from the operational or overall effectiveness dimensions. This trend underlines a core premise of this paper: assessing subsidiary performance in multidimensional terms is fundamental. The reason multidimensional measurement is so important is because the three dimensions are interrelated.

The Venkatraman and Ramanujam (1986) model demonstrates that performance dimensions interact with each other and are the inspiration for our work (see Figure 1). We suggest that the financial and operational measures are correlated, resulting in an intersection of the two dimensions (overlapping area).

**FIGURE 1**
**RELATING THE VARIABLES**



For example, product market outcomes (operational) can impact sales (financial). Furthermore, overall effectiveness encompasses both financial and operational measures, measuring aspects of performance that are not assessed directly by the other two dimensions. Figure 1 visually demonstrates the importance of assessing the gestalt effect formed by the financial, operational and overall effectiveness dimensions.

*The Source of the Performance Measures: Subjective vs. Objective*

Another important aspect of subsidiary performance is the source of the data: subjective (primary) versus objective (secondary) (Hult, Ketchen Jr, Griffith, Chabowski, et al., 2008). Objective data is often preferred due to its ability to overcome the limitations of subjective sources, albeit only when the data is available and reliable. Many studies have shown that individual subsidiary data is difficult to collected (Bird & Beechler, 1995; K. D. Brouthers, 2002; Fang, Wade, Delios, & Beamish, 2007; Gencturk & Aulakh, 1995; Subramaniam & Watson, 2006; Taggart, 1999). Moreover, the reliability problem/ limitation can be further aggravated due to heterogeneous accounting standards and cross-country comparisons (K. D. Brouthers, 2002; L. E. Brouthers, Mukhopadhyay, Wilkinson, & Brouthers, 2009; Dikova, 2009; Fey & Bjorkman, 2001) .

Alternatively, the use of subjective sources constitutes a way to overcome these reliability issues since they are highly correlated with objective measures (Fang, Jiang, Makino, & Beamish, 2010; Fey & Bjorkman, 2001; Yadong & Peng, 1999; Yang, Yiyun, & Zafar, 2007). Although subjective measures can be misleading (e.g., managerial perceptions vary across regions in both the same and different countries), there are cases in which the subjective measure is more appropriate than the objective one (e.g., when a manager's interpretation of performance is to be assessed).

In the aforementioned literature review, we found that most articles (77%) have used subjective data. Objective data is usually used when assessing the financial dimension (100% of the papers using objective data assessed the financial dimension). Subjective measures are linked to both operational and overall performance dimensions. Articles using subjective measures referred mostly to (1) the problem of access to objective data and (2) the difficulty of comparison due to different accounting standards. Thus, the use of subjective measures has been determined to be a good solution to these problems, supported by evidence which suggests that the measures do not significantly differ (Fey & Bjorkman, 2001; Yadong & Peng, 1999; Yang, et al., 2007).

These findings lead us to some preliminary suggestions. First, the use of objective dimensions should consider the availability and reliability of data, as well as, the compatibility of the measures employed. Second, the objective dimension should be used when the measure employed can only be assessed by objective sources. Next, though not perfect, subjective sources are considered to be good substitutes for objective ones. Therefore, subjective measures should be employed when objective sources are neither available nor reliable, and also when the measures demand such a source (i.e., managerial satisfaction with sales, or employee satisfaction). Finally, the use of objective and subjective sources may differ in academic and managerial applications. Managers may choose to use objective data more than academics due to their access of information (e.g., foreign profits).

**The Relationship Between Strategy and Performance**

Managers at the corporate headquarters (HQ) generally have a strategy for each of their foreign subsidiaries. Objectives have been set, possible long and short-term paths have been determined. Therefore, these strategies should influence the evaluation of the degree of success of a foreign subsidiary. Yet, Pangarkar (2008) argues that there is often a weak connection between the subsidiary's strategy and the performance measure used.

The intent of this paper is to demonstrate that the performance assessment should match the strategy of a foreign subsidiary. Thus, each subsidiary's strategy will serve as a guide to which measures should be selected and how much weight each measure should be given. Next, we will describe five strategy options for subsidiaries, and point out which dimensions and measures could be of greatest importance for each strategy. All of the strategies discussed are based on the strategic options presented by Enderwick (2009) and O'clock and Devine (2003).

*Sales/Profit Growth*

This strategy highlights the attempt to increase sales or profits by starting a new subsidiary overseas. This strategy resembles the harvest strategy developed by O'clock and Devine (2003). The management of the parent firm is interested in short-term absolute gains; therefore, they would assess the degree of success of the subsidiary with a greater emphasis on the financial dimension.

Table 2 weights each measure according to their potential relevance for each strategy type. Accordingly, for the sales/profit growth strategy, financial measures (i.e., profit based measures and ROA/ROI) are the most important because they assess the earnings that the subsidiary has produced. Second, market share and performance relative to competitors assesses the position of the firm within the industry. Third, product/service quality assesses if there was any quality change in the product after the expansion. Finally, performance relative to HQ assesses how the subsidiary is performing within the MNE framework.

> *Proposition 1. Financial measures are more important than operational or overall measures when assessing the performance of foreign subsidiaries pursuing a sales/profit growth strategy.*

**TABLE 2**
**WEIGHTING THE MEASURES ACCORDING TO STRATEGY TYPES**

| | *Financial* | | | *Operational* | | | *Overall effectiveness* | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Sales based (A)* | *Profit based (B)* | *ROA / ROI (C)* | *Market share (D)* | *Produc-tivity (E)* | *Product / service quality (F)* | *PRTC (G)* | *PRTG (H)* | *POP (I)* | *PRTHQ (J)* |
| Sales/profit growth | 10% | 20% | 20% | 10% | | 5% | 10% | 15% | 5% | 5% |
| Strategic position | 20% | 5% | 5% | 25% | | | 25% | 10% | 5% | 5% |
| Market entrance | 15% | 5% | 5% | 50% | | | | 15% | 5% | 5% |
| Tech.incorporation | 5% | 5% | 5% | | 35% | 20% | | 15% | 5% | 10% |
| Study the market | 10% | 15% | 15% | | | | | 35% | 25% | |

PRTC: Performance relative to competitors; PRTG: Performance relative to goals; POP: Perceived overall performance; PRTHQ: Performance relative to headquarters

*Strategic Position*

This strategy includes many variations along the continuum between maintaining the status quo – hold strategy according to O'Clock and Devine (2003) – and the whole market conquest – build strategy according to O'Clock and Devine (2003). The parent firm following this strategy is concerned about its position in relation to competitors. Hence, the opening of a subsidiary abroad would aim to increase sales/profits *in relation to its competitors*, or just compensate/respond to an expansion of the competitors sales/profits elsewhere.

According to their importance (see Table 2) market share and performance relative to competitors (sales and profits) are of primary concern because they assess the position of the subsidiary within the industry and show if the primary objective (gaining/maintaining position in the market) was fulfilled. Second, sales based measures are also important. Third, profit based measures and ROA/ROI are not so important in the short term, but matter more in the long term. Finally, performance relative to HQ would assess how the subsidiary is performing within the MNE framework.

*Study the Market*

When the subsidiary's strategy is to study the market, it will focus less on revenues, and more on prospecting the market's characteristics for the parent firm (i.e., laws, politics, and market competition). This information can help headquarters decide if it's worth the investment to enter into a particular country. This strategy type resembles the prospector strategy according to O'clock and Devine (2003).

Once again, Table 2 illustrates that performance relative to goals and perceived overall performance (both from the overall effectiveness dimension) are the most important measures. Second, sales based, profit based and ROA/ROI gain importance in the long-term.

> *Proposition 2. Overall effectiveness measures are more important than financial or operational measures when assessing the performance of foreign subsidiaries pursuing a strategic position or a study the market strategy.*

*Market Entrance*

A market entrance strategy is based on the short term goal of getting established in a foreign market. This strategy often follows the aforementioned study the market strategy. Thus, after gathering information about the market, the HQ may decide to penetrate the new foreign country. In this case, operational measures are emphasized. First, market share is the most important measure as an indicator of market access. Second, sales based measures may be more important than profit based measures and ROA/ROI in the short term. Finally, performance relative to HQ assesses how the subsidiary is performing within the MNE framework.

*Technology Incorporation/Human Resources Development*

Occasionally, the purpose of establishing a subsidiary is to transfer technology from the subsidiary with the objective of increasing competitiveness and productivity in the HQ. This can be done via objective methods (e.g., patent transfer) or subjective methods (e.g., bringing foreigners back to the home country). Thus, productivity is the most important measure since it's going to show if the technology transfer process was successful. Product/service quality is the next most important assessment. Third, none of the financial dimension measures are important in the short-term, yet in the long-term all of them come to play an increasingly important role. Finally, performance relative to HQ assesses how the subsidiary is performing within the MNE framework. This may be measured by the degree to which the subsidiary is able to influence HQ processes.

> *Proposition 3. Operational measures are more important than financial or overall measures when assessing the performance of foreign subsidiaries pursuing a market entrance or a technology incorporation/human resources development strategy.*

## DISCUSSION AND IMPLICATIONS

The purpose of this paper was to put forth a more flexible international subsidiary performance assessment tool. The data acquired from the literature review supports the claim for multidimensionality, depicting the complexity of the performance reality. Three dimensions have been proposed (financial, operational, and overall effectiveness) and two data sources (objective and subjective) could be used to assess these dimensions.

In addition to a more multidimensional model, we attempted to link subsidiary strategy and performance evaluation. This linkage stemmed from the need for more broadly based performance assessment tools. Therefore three propositions were suggested.

Academics and executives should customize their performance measure according to the company's strategy for the specific subsidiary. Ideally, the building of an international performance measure for a subsidiary should be performed by all of the key stakeholders in order to produce a more holistic multidimensional measure.

We hope this paper inspires a broader conceptualization of a key component to any firms' internationalization strategy. Additionally, the intention of the project is to give decision makers a valuable tool in which to evaluate past, present, and future business opportunities abroad. This tool may be used by investment banks (i.e., BNDES), government institutions (i.e., MDIC), and firms (i.e., Petrobras).

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