

# Business Performance for SMEs: Subjective or Objective Measures?

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— *Review of* —  
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## ABSTRACT

The studies of business performance in firms have been carried out for a long period of time. The study examines the basic research methodologies and approaches for assessing business performance. The study assesses the use of subjective and objective measurement of business performance, and in line with the use of Business Performance Measurement (BPM) system. It provides a critical literature analysis on how subjective measures can be used to evaluate performance, specifically for small and medium-sized enterprises (SMEs). The analysis of the literature covers articles from major journals related to the topic. The methodology followed during the conduct of this paper involves the broad case of articles in general business performance measurement, then focusing on the indicators used to study SMEs. Next, the review focuses on the differences between subjective and objective measures, including the validity issue related to subjective measures. The study demonstrates that the use of subjective measures of SMEs' business performance measurements are accurate based on various obstacles in getting actual objective data.

Keywords: business performance, subjective measures, objective measures, small and medium enterprises.

## 1. Introduction

Measuring business performance in today's economic environment is a critical issue for academic scholars and practising managers. There are many studies that show the examination of relationship between factors and performance. Smith and Reece (1999, p. 153) define business performance as “the operational ability to satisfy the desires of the company's major shareholders” and it must be assessed to measure an organisation's accomplishment.

In the scope of strategic studies, many attempts have been made to examine the relationship between strategy and performance since more than 20 years ago; many current studies also focus on this aspect. Many scholars in the studies have examined the importance of performance evaluation and practices for an organisation (Dess & Robinson, 1984; Sapienza *et al.*, 1988; McGrath *et al.*, 1995; Song *et al.*, 2005; Gruber *et al.*, 2010).

Basically, different scholars use different measurements based on the scope of the study; most measurements used in measuring business performance are: profit, return on investment (ROI), turnover or number of customers, design quality and product improvement (Laura *et al.*, 1996; Wood, 2006). However, Mann and Kehoe (1994) and Franco-Santos *et al.* (2007) recommend measuring business performance through the business performance measurement (BPM) system. According to them, the BPM system is an important tool within many research areas, particularly in business and social science studies. This system analyses and investigates each quality that affects a firm's business performance by categorising business performance into two perspectives, as both perspectives will be discussed in details in next sections.

The system is appropriately applied to evaluate both quantitative and qualitative research methods; and it is also appropriate to measuring the performance of small and medium-sized enterprises (SMEs).

Also, it is important to highlight that in many cases, SMEs are often to very reluctant to publicly reveal their actual financial performance, and therefore scholars have deliberated on the need for subjective measures in evaluating business performance. In addition to the issue, it is important to distinguish the aspects of subjective (also known as perception-based) and objective measures. Thus, this paper aims to analyse the related literature on how subjective evaluation can be used to assess the performance in the context of SMEs.

## **2. The Dynamics of Business Performance**

Business performance measurement (BPM) is important to define many research areas of interest to both academics and practitioners, particularly management and psychology. Academics and practitioners used to assess business performance as a means to monitor the operation activities of an organisation.

Many definitions have been used to define business performance, and one of the definitions explain that business performance is “the operational ability to satisfy the desires of the company's major stakeholders” (Smith & Reece, 1999, p. 153) and as a subset of the overall concept of organisational effectiveness (Venkatraman & Ramanujam, 1986). This show that business performance must be assessed

to achieve organisational goals by measuring success or failure, and can be defined in several ways, such as subjective or objective, and financial or non-financial.

When discussing the measurement of business performance, most practitioners refer to the indicators that help companies monitor its current and past performance; and most indicators used are based on accounting measurement, such as return on investment (ROI), return on assets (ROA) and earnings per share, including turnover or number of customers (Wood, 2006).

However, scholars have often criticised the use of such accounting measures, as they primarily focus on economic dimension, and ignoring other aspects of a firm's performance (Quinn & Rohrbaugh, 1983; Venkatraman & Ramanujam, 1986). Just as one example, according to Simpson et al. (2006), the evaluation of business performance may vary if there is a change in operational activity - that affects ROI. The enlarged domain of business performance also covers marketing and financial aspects such as profitability, market share and sales growth (Feng et al., 2008).

Some scholars emphasise that profit is not a good performance indicator for measuring SMEs, and it can be augmented by examining two quality variables: design quality and product improvement (Laura *et al.*, 1996; Simpson *et al.*, 2006). In contrast to manufacturing sector, the service sector uses different indicators, such as bedroom-occupancy rate, break-even point and guest satisfaction to assess the performance (Morrison & Teixeira, 2004). However, according to the issue, scholars have found that there are no significant differences in the use of performance measures between industry and service enterprises, particularly in English SMEs (Sousa *et al.*, 2006; Wood, 2006); although it be affected by the size of the firm.

As such, in the discipline of supply chain and operation management, interest is given to several areas such as third-party logistics (3PL), flexibility strategy, total quality management, networking and practices (Vickery et al., 1999; Sohail & Hoong, 2003; Sohail et al., 2006; Morgan, 2007; Robb et al., 2008). Meanwhile, in the discipline of strategic management, performance measurement focuses on other aspects such as quality, supplier, growth, sales and distribution and common financial performance (Covin & Slevin, 1989; Teece et al., 1997; Dyer & Nobeoka, 2000; Gruber et al., 2010).

In addition to the issue, Mann and Kehoe (1994) has introduced the BPM system – a popular system over the past twenty years. This system analyses and investigates the effect of quality activity and all functions at high and low levels of activity, and as an effective communication tool that indicates any expected effects of quality activity for every function in an organisation. The system is also appropriate for quantitative (for example, questionnaires) and qualitative (for example, structured interview) research methods.

This BPM system categorises business performance into two broad areas: (i) strategic business performance (SBP) and (ii) operational business performance (OBP). SBP measures are concerned with the performance evaluation of organisations in terms of their major corporate goals, meanwhile, OBP measures on a daily or weekly basis the everyday running of the organisation. Thus, both management and employees are required to record the running activities of their organisation, as the activities are important to its internal operations (Mann & Kehoe, 1994; Feng *et al.*, 2008).

Consistent with Sezen's 2005 survey of the automobile-manufacturing industry in northwest Turkey, it demonstrates that BPM can be improved if conducted through coordination of functions rather than individual measures. Business performance also relies on proactive integration rather than any particular single practices. Therefore, different practices must be grouped and implemented to achieve a proactive attitude in a firm's operation (González-Benito, 2005). After a review of the literature, Franco-Santos *et al.* (2007) detailed some key characteristics of BPM. However, there is no one specific definition of BPM. It may therefore be useful to consider that most of the definitions provide one or more of the relevant criteria: features of the BPM, roles it plays and processes that constitute it (Franco-Santos *et al.*, 2007).

Scholars and practitioners should be considering questions in conjunction of three major issues – time, people and stakeholders, and appropriateness – before measuring business performance:

- When - For the firms that measure their performance frequently, the time duration should be considered important to avoid counterproductive and overconsumption of resources,
- Where - This involves social and stakeholder aspects to implement a variety of measurement methods, and
- How - By using a series of tailor-made measures, firms should focus on the critical processes (Love & Holt, 2000).

### **3. Subjective and Objective Performance Measurement**

Many studies rely on subjective measures that are evaluated by respondents. Scholars have discussed the necessity to use subjective performance measures as a substitute for objective measure, and the pioneering study for these discussions is that of Dess and Robinson (1984). Dawes (1999), Wall *et al.* (2004) and Kim (2006) have distinguished the use of subjective and objective measures according to three aspects: indicators, measurement standard and scale anchors (Table 1).

Table 1: Differences between Subjective and Objective Measures of Business Performance

Differentiation Aspect	Subjective Measures	Objective Measures
1. Indicators	<ul style="list-style-type: none"> <li>• Focus on overall performance</li> </ul>	<ul style="list-style-type: none"> <li>• Focus on actual financial indicators</li> </ul>
2. Measurement standard	<ul style="list-style-type: none"> <li>• Key informants are asked to rate performance relative to their competitors (and/or industry)</li> </ul>	<ul style="list-style-type: none"> <li>• Key informants report absolute financial data (for example, AUD profit per employee)</li> </ul>
3. Scale anchors	<ul style="list-style-type: none"> <li>• Scales range from “very poor” to “very good”, or “much lower” to “much higher”, or “worst in industry” to “best in industry” etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Scales are not used</li> </ul>

Source: Adapted from Dawes (1999), Wall et al. (2004) and Kim (2006)

In the real business world, there are many obstacles to small and medium firms' revealing their actual financial performance to the public. Scholars deliberate on the necessity of subjective measures for evaluating business performance. The use of subjective measurements for business performance is made more necessary by the relative difficulty, particularly for small firms, of gathering objective financial data. Either these types of data are unavailable, or they are obscured or manipulated by managers eager to protect their firms' reputations or avoid personal or corporate taxes (Dess & Robinson, 1984; Sapienza et al., 1988).

In addition, subjective measures allow comparison across firms and contexts, such as industry types, time horizons, cultures or economic condition (Song et al., 2005). Indeed, it can be a good alternative if the measures focus on the firm's current condition and the objective data may not be compatible with the intended level of analysis (Wall et al., 2004).

The use of subjective measures can reduce the dependence on subjective measures, particularly when the research is executed at business units of multi-industry firms and privately held firms (Dess & Robinson, 1984). Besides, the evaluation of performance through subjective measures is necessary to attain flexibility and consistency of performance, as objective measures can vary based on industry and can obscure the relationship between independent variables and business performance (as a dependent variable) (Dawes, 1999).

Referring to this issue, managers can use the relative performance of their industry as a benchmark when providing a response (Dawes, 1999), and these subjective measures can also be cost-effective for the researcher when data can be collected through questionnaire and/or interview methods that simultaneously elicit information on practices (Wall et al., 2004).

Sapienza *et al.* (1988) claim that it is legal for small firms' managers to manipulate some data, and to control such manipulation through subjectively adjusting measures. In fact, many managers of small and private firms consider objective performance measures to be confidential, and guard them from public scrutiny (Sapienza et al., 1988; Gruber et al., 2010). Accordingly, Covin & Slevin (1989) state that many study topics cannot be comprehensively addressed, and results to inaccuracy of objective financial data. Other issues in researching small firms are misinterpretations during the attempts to directly compare objective measures, including in different industries. For example, performance may be considered "poor" if the data shows losses or low profit. Such misinterpretation can occur if, for example, firms have many commitments to R&D, including product and market development for future growth (Covin & Slevin, 1989; Dawes, 1999). Hence, researchers are advised to develop subjective measures because these type of measures provide more complete information (Covin & Slevin, 1989).

#### **4. The Validity of Subjective Performance Measures**

A more comprehensive view of business performance is possible if financial and operational indicators are obtained from primary sources (Venkatraman & Ramanujam, 1986). Conversely, data cannot be validated if researchers obtain different data sources (Venkatraman & Ramanujam, 1986). Therefore, it requires researchers to rely on subjective perceptions to assess the relative improvement of business performance.

In this validation issue, Dess and Robinson (1984) state that subjective measurements are strongly correlated with objective measurements in terms of the absolute changes in return on assets and sales, over the same time period. For example, the result of the correlation ( $r$ ) between objective and subjective measures to total sales gives a value for  $r$  of .80, and to ROA gives a value for  $r$  of .79. This supports the validity of the performance evaluation through subjective measures.

Venkatraman and Ramanujam (1987) and Tepper and Tepper (1993) claim that respondent (or primary) data shows less method variance, in terms of less systematic measurement error and bias compared to archival (or secondary) data. Researchers also must consider that, since firms often cannot provide accurate objective measures; the option is to remove performance from the research design (Dess & Robinson, 1984), which is the most severe cases to avoid by them.

Table 2: Results of Different Validity Tests to Measure Business Performance

Validity Types	Results
i. Construct	<ul style="list-style-type: none"> <li>• Relationship between subjective and objective performance measures with a series of independent variables are equivalent.</li> <li>• Subjective performance measurement is statistically significant with objective measurement (<math>p &lt; .01</math>).</li> <li>• Subjective measurement shows a 95% success rate as compared with objective measurement.</li> </ul>
ii. Convergent	<ul style="list-style-type: none"> <li>• Subjective performance measures are related to objective measures.</li> </ul>
iii. Discriminant	<ul style="list-style-type: none"> <li>• Relationships between subjective and objective measures are systematically stronger than relationships between different performance constructs measured using the same method (either subjective or objective).</li> </ul>

Source: Adapted from Wall *et al.* (2004)

A very few attention has been given to evaluating the validity of subjective measurements. Chandler and Hanks (1993) and Wall *et al.* (2004) suggest to validate the measurement via three tests, which are construct, convergent and discriminant. These tests have been used to show that subjective measurement is significantly reliable as an alternative to objective measurement in business performance (Table 2).

The findings of Wall *et al.* (2004) support earlier studies by Hoffman *et al.* (1991) and Chandler and Hanks (1993) that discuss the validation of performance measurement. Table 3 illustrates three measurement aspects of validation that must be considered by researchers. Results from these aspects showed that there is a high level of correlation between objective and subjective measures, as well as suggesting strong inter-rater reliability (Lee *et al.*, 2001).

Table 3: Summary Comparison of Performance Measures

	Performance Relative to Competitors	Satisfaction with Performance	Broadly Defined Categories	
			Growth	Business Volume
Relevance	Very Good	Unknown	Very Good	Very Good

Availability	Acceptable	Very Good	Very Good	Very Good
Internal Consistency	Very Good	Good	Good	Very Good
Inter-rater Reliability	Marginal	Acceptable	Good	Very Good
External Validity	Very Good	Inadequate	Very Good	Very Good

*Source: Chandler and Hanks (1993)*

According to the table, researchers also can accept the examination of performance relative to competitors, although broadly defined categories are still useful. However, Chandler and Hanks (1993, p. 400) explain that “...in reference to the performance relative to competitors’ scale, several respondents who did not disclose performance relative to competitors’ information pencilled in that they had no basis for comparison because they did not know how their competitors were performing”. This suggests that examination of performance relative to competitors must be focused on the entire industry to assess “generalisability”, as some respondents may not know much about their competitors’ actual performance.

## 5. Conclusions and Recommendations

Many studies have been done in measuring and evaluating business performance. However, there is a very few studies that discuss the measurement of business performance for SMEs, in the specific issues of subjective measurement and validation. This paper has assessed many literatures from scholars to discuss these significant issues in today’s research.

Assessment of the literature on this topic recommends several directions in how the business performance measures in a small and medium-sized enterprise can be interfaced, coordinated and managed. The literature suggests that subjective measurement is the best alternative to objective measurement in evaluating firms’ business performance.

According to the issue, Dess and Robinson (1984) claim that it is very difficult for researchers to accurately estimate firms’ business performance, mostly when using mailed-out questionnaires. This is because the data will be subject to measurement errors due to the confidential nature of the data and variance in accounting procedures among participating firms. These factors may create a researcher bias in determining significant effects of the study (Song *et al.*, 2005). The use of objective ratings also would increase probability of having black-responses from respondents (Begley & Boyd, 1987), which it is to be avoided by the researcher to obtain a clean data set. Besides, most SME managers do prefer and willing to provide the performance data subjectively for the sake of confidentiality.

Extant literatures show that the assessment of subjective or perception-based performance is regularly and comprehensively used in the social-science studies. This assessment is acceptable, as it shows high positive correlations with objective measures (Song et al., 2005). Despite, the equivalence assumptions between subjective and objective performance measures are still being debated.

This study proposes that future research should attempt in developing new measurement and a specific performance system that can be assessed for measuring business performance accurately. The new measurement and the system should also be focused on SMEs and the implementation of subjective measures. In addition, it is strongly recommended that future studies have to develop new precise frameworks and conducting empirical tests for business performance indicators.

The study could significantly contribute to the body of knowledge by examining and expanding the taxonomy of business performance, and in shedding light for further research involving business performance, particularly for small and medium-sized enterprises.

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