

RISK GOVERNANCE AND CONTROL IN SMALL AND MEDIUM COMPANIES

SECTION 1



BUSINESS PERFORMANCE MEASUREMENT: DOES SIZE MATTER?

H Mills*, C Gerber**, M Terblanche-Smit**

*Department of Business Management, Stellenbosch University, Private Bag X1, Matieland, South Africa, 7600

**University of Stellenbosch Business School, Stellenbosch University, PO Box 610, Bellville, South Africa, 7535

Abstract

Risk reduction remains a management challenge. Research shows that business performance measurement is a popular tool to reduce risk, although applied differently across organizations. This study aimed to assess the influence of organizational size on performance measurement of market-driven organizations. A web-based survey was conducted whereby managers indicated their satisfaction with performance measurement practices, the regularity with which performance measurements were collected and the importance attached to performance measures collected. Respondents were fairly satisfied with existing performance measures, irrespective of organization size. No significant difference between organization size and respondents perception about the value placed by top management with regards to performance measurement was found. The study concludes that managers can make decisions that could ultimately reduce risk when they utilize proper performance measures.

Keywords: Business Performance, Risk, Organization Size

1. INTRODUCTION

In business management a major challenge remains reducing risk. One attempt to reduce risk is the availability of and access to effective and efficient systems of internal controls. Effective and efficient systems of internal controls aid managers in not only reaching the goals and objectives of organizations, but also achieving long-term profitability targets (Cerrone, 2013). A popular and easy accessible internal control system that most organizations utilize is that of business performance measurement.

The phrase "business performance measurement" has attained principal status in the corporate environment. This is even truer during economic crises where organizations are tempted to measure everything measurable in an attempt to minimise excessive costs and activities. In spite of its corporate-jargon status, business performance measurement is relevant to the purpose it is used for and by whom it is used. Researchers have stated that organizations using well-designed business performance measures as the foundation for

management outperform organizations that do not use such measures (Lingle and Schiemann, 1996 as cited in Neely and Kennerley, 2002).

To many managers the subject of business performance measurement does not exceed the well-known "Balanced Scorecard" (Kaplan and Norton, 1998). Business performance measurement fulfils a vital role in translating organizational strategy into results (Lingle and Schiemann, 1996; Kellen, 2003) by acting as a "vehicle for strategic dialogue" within the organization (Kaplan and Norton, 2001 as cited in Kellen, 2003). Performance measurement is therefore deemed to be a fundamental cornerstone of modern management (Franco-Santos and Bourne, 2005). The appropriate use of performance measurement generates a holistic view of the organization's performance to assist management in making informed decisions, altering strategies, and attempting to reduce risk. However, the question of how to structure an organization and its actions to maximise business performance has been a source of enduring debate in the practice and in academic realms (Moorman and Rust, 1999).

Business performance measurement involves measuring effectiveness and efficiency of organizational strategies and functional operations. Functional operations include all functions within an organization. According to Neely (1999), Rolstadås (1998:989), Neely *et al.* (1994); Kellen (2003) and Managementor (2007) performance appraisal enables organizations to improve process orientation, initiatives, information technology, competitiveness and customer satisfaction. For the majority of organizations, customers are the fundamental source of cash flow (Ambler, Kokkinaki, Puntoni and Riley, 2001). Placing customers at the heart of a firm is the key to sustained competitiveness (Martin, 2010), and in doing so firms differentiate themselves by emphasising superior value to customers. Organizations that specifically focus on managing and maintaining customer satisfaction are typically market-driven organizations (Martin, 2010; Day, 1998).

Usually, the nature of a company's activities and its size are key determinants in whether there is systematic management of risk (Likierman, 2007). Researchers have found that the effectiveness and efficiency of performance measurement are influenced by various aspects (Hodge, 2011; Kouzmin, Löffler, Klages and Korac-Kakabadse, 1999; Murphy, Trailer and Hill, 1996; Yang and Hsieh, 2007), such as top management's approach to performance management, as well as the frequency with which performance measures are collected. The reason why this research was conducted was to investigate whether the size of an organization has an influence on performance measurement.

2. PERFORMANCE MANAGEMENT

The study of what comprises work and how it is measured is very old. Long ago, people must have considered what the optimal way was to sow seed, to plough, to harvest or to hunt. This would have concerned examining how effectively the process associated with the action, was performed (Baxter and MacLeod, 2008). Today still, the practice of determining the optimal way to perform a certain action, regardless of the context, involves measurement. Only by thoroughly assessing current situations, can performance be improved. The purpose of measuring business performance is thus not to establish an organization's level of performance, but to enable the organization to perform better (Strydom, 2002).

Various trends have led managers to use business performance measurement as a way to improve an organization's competitive advantage and competitiveness on a global scale. Neely (1999) and Rolstadås (1998) both suggest similar probabilities that validate the focus on competitiveness and the subsequent interest in business performance measurement. Moreover, Neely, Mills, Platts, Gregory and Richards, (1994); Kellen (2003) as well as course notes from the Harvard Business School, (Managementor, 2007) provide reasons akin to those of Neely (1999) and Rolstadås (1998) on why measuring business performance has become so important.

Business performance measurement has undergone a transformation over the past years

from being merely an appraisal process (Neely, 1999) to becoming an organization-wide process that is essential for the achievement of sustained performance (Hough *et al.*, 2008). New reports and articles on the issue of performance measurement have been appearing at a rate of one every five hours of every working day since 1994 (Neely, 2002). During 1996 in the United States of America, new books on the topic have appeared at a rate of one every two weeks (Neely, 1999). Furthermore, a search of the Internet revealed over 24 million Websites dedicated to performance measurement, up from 12 million in 2002 and 200 000 in 1997 (Neely, 2002). Evidently, from these statistics, Einstein's message of "not everything that counts can be counted and not everything that can be counted, counts" (Neely, 2002), appears to have been neglected as today's corporate society has become fixated with performance measurement. Managers are driven to measure organizational actions with the hope of improving organizational competitiveness.

In spite of the abundance of publications on the discipline of business performance measurement, authors rarely explicitly define the exact meaning of the word "performance", even when the focus of the article or book is on performance. In fact, Lebas and Euske (2002) consider performance as a "suitcase word" in which "everyone places the concepts that suit them, letting the context take care of the definition". It is therefore important that the meaning of the concept as intended in this study is unambiguous. Neely, Adams and Kennerley (2002) define performance measurement as "the process of quantifying the efficiency and effectiveness of past actions". Since this definition can apply to performance measurement in any field of study, it can be considered as a universal definition to performance measurement. Thus, business performance measurement in particular, would then involve measuring the "efficiency and effectiveness of past actions" (Neely *et al.*, 2002), where past actions would refer to the organization's strategy and functional operations. As a result of business performance measurement, management would be able to collect information to address shortfalls and adjust the organizational strategy accordingly by setting suitable objectives (Managementor, 2007; Schmitz, *s.a.*).

3. BUSINESS PERFORMANCE MEASUREMENT PRACTICES

During earlier years, business performance measurement was not as important an area of the organization, as it is today. The increased interest in business performance measurement can be ascribed to a number of trends, which have acted as catalysts. In other words, these trends triggered as urgency to develop business performance measures. On reviewing the above-mentioned literature, the probabilities or trends that acted as catalysts in the increased interest in business performance measurement are: globalisation, customer satisfaction, process orientation, improvement initiatives, information technology, and regulatory and standards compliance (Neely, 1999; Rolstadås, 1998; Neely *et al.*, 1994; Kellen, 2003; Managementor, 2007).

Neely, Richards, Mills, Platts and Bourne (1997) have developed a framework called the "Performance Record Sheet", which aims to assist managers in designing business performance measures. The framework is based on research conducted by Neely, Gregory and Platts (1997 as cited in Neely *et al.*, 1997) who established criteria for designing effective measures that are aligned with organizational strategy. In the "Performance Record Sheet" the frequency of performance measurement is noted. The difficulty and expenses to obtain measures as well as how quickly the measures change, are factors worth considering with regard to the periodicity of measurement and frequency of assessing measurement is therefore relevant (Neely *et al.*, 1997; Neely *et al.*, 2002).

According to Hoque and James (2000, as cited in Franco-Santos *et al.*, 2005) the emphasis placed on business performance measurement increases as the size of an organization increases. One could therefore argue that larger organizations would have better structures in place to measure performance, as in many instances data is obtained from outside sources. Organizations can therefore decide who the data provider should be, and can therefore be satisfied with data and resulting performance measures provided. Moreover, as larger organizations can dictate data needs to outsource data companies, larger organizations can influence the matter of periodicity of data and resulting performance measures. From the above the following hypotheses were postulated:

H₁: An organization's size will influence respondent's satisfaction with existing performance measures.

H₂: An organization's size will influence the regularity of performance measure collection.

Research has indicated that top management commitment serves as one of the key drivers of commendable business performance measurement in an organization (Bourne, Neely, Platts and Mills, 2002; Hendriks, Wiedman and Menor, 2008). Top management fulfils an important role in specifying organizational values, thereby providing the entire organization with clear goals for focusing the culture change effort (Lingle *et al.*, 1996; Moravec, 1996). Thus, if the commitment of top management is weak, commitment at employee level and among the rest of management will follow suit. Consequently, the implementation of the business performance measures into the organization will be impeded. Thus, the commitment of top management to the business performance measures is a very effective way to encourage employees (Meekings, 1995). The traditional phrase "leading by example" applies in this situation. In larger organizations, top management constitutes more than one or two individuals. Usually, in larger organizations, top management will encapsulate experienced individuals that should carry knowledge of performance management. According to Hoque and James (2000 as cited in Franco-Santos *et al.*, 2005), "as the size of organizations increase, organizations place greater emphasis on business performance measurement to support strategic decision making". Moreover, these practices also create a foundation on which the performance measures specific of each subsequent business function, can be developed.

Therefore, from the above, the following hypothesis is postulated:

H₃: An organization's size will influence the importance attached to performance measures by top management.

4. RESEARCH METHOD

The focus of this study was to assess the influence of organizational size on performance measurement of market-driven organizations. To enable the researchers to assess performance practices of market-driven organizations 1,200 registered managers in South Africa were e-mailed. As web-based surveys have relatively low response rates (Churchill *et al.*, 2010), suggestions to reduce non-response bias as proposed by Cooper *et al.*, (2006) were followed, such as sending reminders to respondents who had not yet completed the survey, to do so.

A questionnaire developed by Kokkinaki *et al.*, (1999) was utilized to assess the influence of organizational size on performance measurement of market-driven organizations. As a component in their research, Kokkinaki *et al.*, (1999:9-11) identified six categories according to which performance measures could be assessed, namely financial (i.e. sales volumes or turnover, profit contribution), competitive market (i.e. market share, share of voice, relative price), consumer behaviour (ie number of users or consumers, user or consumer loyalty), consumer association (ie awareness, attitudes, satisfaction, commitment, buying intentions, perceived quality), direct (trade) customer (i.e. distribution or availability, customer profitability, satisfaction, service quality) and innovativeness (i.e. number of new products or services, revenue generated from new products or services as a percentage of sales). The regularity of collection was measured by selecting one of four available options: (1) never, (2) rarely/ad hoc, (3) regularly/yearly/quarterly or (4) monthly or more.

The questionnaire consisted of 12 questions (Kokkinaki *et al.*, 1999). Unlike traditional questionnaires where a single construct is measured by means of several single questionnaire items, the questionnaire contained mostly matrix type questions, with the exception of the demographic questions. Since the questionnaire was originally formulated in the United Kingdom, it was piloted before the accumulation of data, thereby, modifying and adapting the questionnaire where it was needed.

5. SAMPLING

The questionnaire was emailed to 1,200 managers. After two weeks, 84 responses were obtained. The 84 responses produced a response rate of 7%. According to Lindner, Murphy and Briers (2001:51), when a response rate of less than 85% is achieved, extra procedures for non-response are imperative. Blair and Zinkhan (2006:4) argue that non-response should be accounted for, regardless of the response rate; in particular for studies using non-probability samples. Considering the response rate of only 7%, the non-response error was addressed by comparing the early respondents with late respondents. In their meta-analysis, Lindner *et al.*, (2001:51) noted that this method was primarily used in social science

literature. The rationale behind comparing early to late respondents "is based on the concept that subjects who respond late are similar to non-respondents" (Pace, 1398 as cited in Lindner *et al.*, 2001:51). Consequently, for purposes of this research, the 25% of respondents who responded first were compared with the 25% of respondents who responded last. The early and late respondents were compared based on their answers to the survey questions, using t-tests. None of the questions revealed significant differences between the early and late responses. Thus, the response rate of 7% was deemed acceptable. Since the results were conclusive, no subsequent responses were gathered.

6. RESULTS

As the aim of this research was to assess the influence of organizational size on performance measurement of market-driven organizations, respondents were not probed on demographics. The size of the organization was measured by the number of employees (Eastman, 2010) and was an ordinal scaled question ranging from "small" (less than 110 employees), to "medium" (less than 500 employees), to "large" (500 or more employees). More than half of the respondents (56%) were from a "large" organization. Of the remaining respondents, 24% were from a "medium-sized" organization and 20% were from "small" organizations.

Nearly one third of the respondents (32%) were from organizations that operated in the "business-to-business services" sector. Consumer goods accounted for 18% of the responses, and consumer services totalled 11%. Business-to-business goods accounted for 10% of the responses. The retail sector was the least represented, with a mere three respondents from this sector (4%). More than a quarter of the respondents (26%) selected the "other" option. The reason for the popularity of this category was perhaps because many large organizations were operational in more than one sector. A case in point may be major financial institutions that operated in both "consumer services" and "business-to-business services".

6.1. H₁: An organization's size will influence respondent's satisfaction with existing performance measures

Results indicated that the degree of satisfaction with existing performance measures' mean was 4.02 (s=1.58, m =5). The result indicates that respondents were "neither dissatisfied nor satisfied" with their existing measures of performance assessment effectiveness. The mode indicates that the option of "fairly satisfied" had the highest frequency. It is clear that the majority of respondents (43%) were satisfied with their existing performance measures to a certain degree ("fairly satisfied", 27.4%; "satisfied", 9.5%; "very satisfied", 6%). Only 16.6% of respondents appeared to be "dissatisfied" (8.3%) and "very dissatisfied" (8.3%) with their existing performance assessment measures.

As stated, the emphasis placed on business performance measurement increases as the size of an organization increases (Hoque and James, 2000, as cited in Franco-Santos *et al.*, 2005). Thus, the effect of an organization's size on respondent's satisfaction with existing performance measures was

assessed. For this purpose, an ANOVA analysis was performed. Table 1 presents the comparison between the two constructs.

Table 1. Comparison of organization sizes with satisfaction

Size	Mean	SD	F-value	Sig.
Small	3.88	1.17	0.103	0.902
Medium	4.00	1.71		
Large	4.09	1.68		

Based on the results in Table 1, the null hypothesis could not be rejected (F=0.103, p>0.05). Thus, the size of an organization does not introduce any statistically significant difference in respondents' satisfaction with existing performance measures. One can conclude that there was difference between managers satisfaction with the existing measures of performance used in their organizations, and the size of the organization.

6.2. H₂: An organization's size will influence the regularity of performance measure collection

Respondents were asked to indicate how often the performance measures were collected, irrespective of who reviewed them. Nearly 70% of the respondents indicated that "Financial" measures were collected monthly or more, while a mere 6% indicated that "Financial" measures were collected rarely, ad hoc or never. Approximately one in four marketers in this study indicated that "Consumer behaviour", "Direct customer" and "Innovativeness" measures were collected monthly or more. Only a third of the marketers who participated in this research collected "Competitive market" measures monthly or more,

As argued, the larger the organization is, the more emphasis would be placed on business performance measurement. Logistic regression analysis was used to assess the influence of organization size on the regularity of performance measure collection. The data violated the assumptions of multivariate normality, and logistic regression analysis was performed for each of the measure categories (or models). The models each contained three independent variables concerning the size of the organization ("small", "medium" and "large). Table 2 presents the outcome.

From Table 2 it is clear that only the model pertaining to "consumer association measures" was statistically significant ($\chi^2(2)=7.752$; p<0.05). One can therefore conclude that the model was able to distinguish between respondents who regularly collected "consumer association measures", and those who did not. The model explained between 8.9% (Cox and Snell R Square) and 12.2% (Nagelkerke R Square) of the variance in the regularity of "consumer behaviour measure" collection and correctly classified 66.3% of cases.

Table 3 specifies that only "medium" sized organizations made a statistically significant contribution to the model concerning "consumer association measures" (p<0.05). The odds ratio of 0.250 indicates that respondents of "medium" sized organizations were less likely (Pallant, 2006:167) to regularly collect "consumer association measures" than respondents from "small" or "large" sized organizations.

Table 2. Logistic regression predicting likelihood of regularly collecting performance measures, pertaining to organization size

	χ^2	Df	Sig.	Cox and Snell R Square	Nagelkerke R Square	Classification
Financial	1.077	2	5.84	1.3%	3.5%	94%
Competitive market	2.346	2	0.309	2.8%	4.2%	77.1%
Consumer behaviour	3.260	2	0.196	3.9%	5.3%	66.3%
Consumer association	7.752	2	0.021*	8.9%	12.2%	66.3%
Direct (trade) customer	4.784	2	0.091	5.9%	8.1%	64.6%
Innovativeness	3.889	2	0.143	4.7%	6.5%	65%

Note: **p*-value < 0.05

Table 3. The odds of "medium" sized organizations collecting "consumer association measures"

	Size	B	S.E.	Wald	df	Sig.	Odds ratio	95% C.I. for odds ratio
Consumer association	Medium	-1.386	.566	5.992	1	0.041*	0.250	0.082 -0.750

Note: **p*-value < 0.05

6.3. H₃: An organization's size will influence the importance attached to performance measures by top management

As stated, the emphasis placed on business performance measurement increases as the size of the organization increases. The influence of organization size on the importance top management attaches to performance measures was assessed by means of a logic regression analysis. No statistical significant differences were found between the importance attached to performance measures and different organization sizes. Therefore, the null hypothesis could not be rejected (*p*>0.05). One can thus conclude that the size of the organization did not influence the respondents' perception of the importance top management attached to performance measures.

6.4. Discussion

Performance measurement is a widely debated and researched topic. By utilising proper performance measures managers can make decisions that could ultimately reduce risk. In this article aspects that typical market-driven organizations would use to measure performance (ie financial, competitive market, consumer behaviour, consumer association, and direct customer and innovativeness measures) and organization size were scrutinised. Results indicated that the size of market-driven organizations does not necessarily influence performance measurement. For the most part, respondents indicated that they were fairly satisfied with existing performance measures within their organizations, irrespective of the size of the organization. Results also indicated that there were no significant differences between organization size and the perception that respondents had about the value placed by top management with regards to performance measurement.

The only significant difference that was depicted was the regularity of collecting "consumer association measures". As the research specifically focussed on market-driven organizations, this result could be expected. Market-driven organizations would particularly be concerned with measuring consumer associations, as these organizations primarily focused on consumer satisfaction. Medium sized organizations were less likely though to collect "consumer association measures" as opposed to

small and large sized organizations. This could be due to a different management focus in terms of information collection in medium sized organizations. Whereas smaller organizations would deem this information critical for decision making off a smaller base and larger organizations' have access to funds where a broader range of information can be collected for decision making.

Research in performance measurement usually provides mixed results (Black, Wright and Davies, 2001; Obrycki and Resendes, 2000; Peterson and Peterson, 1996), and the results depicted in this article are no exemption. It would seem that performance measurement, be it the satisfaction that employees have of it, the regularity of collecting it and the importance given to it by top management are not necessarily influenced by organization size. It should be noted that only market-driven companies were included in the research and that given other scenarios the results may turn out to be different. Also, data were gathered in an emerging market, where very large organizations are scarce, or might have a different focus and motivation for collecting performance measurement information. The results may be different where large organizations are ample and have resources and a management focus towards performance measurement. Future research could include organizations that are more financially driven.

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