



## Measuring Business Excellence

Exploring competitive strategic performance consistency in service organizations

Carlos F. Gomes, Mohammad Najjar, Mahmoud M. Yasin,

### Article information:

To cite this document:

Carlos F. Gomes, Mohammad Najjar, Mahmoud M. Yasin, (2018) "Exploring competitive strategic performance consistency in service organizations", Measuring Business Excellence, Vol. 22 Issue: 2, pp.165-182, <https://doi.org/10.1108/MBE-11-2016-0054>

Permanent link to this document:

<https://doi.org/10.1108/MBE-11-2016-0054>

Downloaded on: 28 June 2018, At: 02:12 (PT)

References: this document contains references to 52 other documents.

To copy this document: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)

The fulltext of this document has been downloaded 8 times since 2018\*

Access to this document was granted through an Emerald subscription provided by

### For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit [www.emeraldinsight.com/authors](http://www.emeraldinsight.com/authors) for more information.

### About Emerald [www.emeraldinsight.com](http://www.emeraldinsight.com)

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

\*Related content and download information correct at time of download.

# Exploring competitive strategic performance consistency in service organizations

Carlos F. Gomes, Mohammad Najjar and Mahmoud M. Yasin

## Abstract

**Purpose** – As service organizations move toward the open system strategic customer orientation, they need to ensure consistency among competitive methods, performance measures and strategies utilized. This paper aims to examine the relationships among these important facets of today's service organizations. The study at hand examines the relationship among competitive methods, implicit strategy and performance measures used by Portuguese service organizations.

**Design/methodology/approach** – This research uses a survey-based methodology. Factor analysis, cluster analysis and regression analysis procedures are used to analyze the collected data from Portuguese service organizations.

**Findings** – Based on the results of this study, it appears that some of the studied service organizations are steadily moving toward the open system mode of strategy, competitive methods and performance measurement. However, the majority of the service organizations examined appeared to be in a state of strategic confusion, as they appear to lack the consistency among competitive methods, performance measures and desired strategic orientations.

**Research limitations/implications** – The sample used in this study is specific in nature, as it includes only Portuguese service organizations. Therefore, the results of this study should be interpreted with caution. Future research in other cultural service settings is recommended. Such research should emphasize the exploration of theoretical frameworks, which tend to practically integrate competitive methods, performance measures and strategic orientation.

**Practical implications** – This study has direct practical implications for service managers, as they attempt to integrate their organizational systems. As such, the research in this study paves the way toward the practical integration and consistency among competitive methods, performance measures and strategic orientations needed to enhance the customer orientation. In this context, such integration and consistency are essential to enhance the strategic competitiveness of today's service organizations operating in a dynamic marketplace.

**Originality/value** – This research combines bodies of knowledge dealing with competitive methods, performance measures and their impact on strategic orientations. The conceptual framework offered in this research attempts to facilitate the understanding for consistent practice pertaining to the competitiveness of the open system service organization in a dynamic environment. Such consistency is essential to the competitiveness of the organization in a dynamic environment.

**Keywords** Strategic choices, Competitive methods, Open system service organizations, Performance measures and measurement, Service organizations, Strategic and performance consistency

**Paper type** Research paper

Carlos F. Gomes is based at Center for Business and Economics Research (CeBER), Faculty of Economics, University of Coimbra, Coimbra, Portugal.

Mohammad Najjar is based at Department of Business Administration, An-Najah National University, Nablus, Palestine.

Mahmoud M. Yasin is Professor of Management at Department of Management and Marketing, East Tennessee State University, Johnson City, Tennessee, USA.

## 1. Introduction

In the past, service organizations tended to operate as closed operational systems. As such, these systems chose traditional generic organizational strategies which stressed operational efficiency. These generic strategies were supported by traditional competitive

Received 3 November 2016  
Revised 19 February 2018  
Accepted 26 March 2018

methods, which in turn also emphasized efficiency. The performance measurement (PM) approach used tended to emphasize traditional, financial and operational measures. The interdependencies among organizational strategy, competitive methods and PM were defined in terms of internal consistency.

Nowadays, in service operational environment, the interdependencies among organizational strategy, competitive methods and competitive performance, pose serious challenges to service organizations. As these organizations strive toward sustainable competitive strategic advantage in a dynamic service marketplace, strategic/performance confusion could lead to a strategic failure. In this context, the triangle of strategic orientation, competitive methods and PM must be consistently maintained and focused on sustainable organizational strategic competitiveness.

Recent dramatic changes, in the form of service technology, competitive service environment and relations to customer, have forced service organizations to re-engineer their competitive strategic models. This reengineering effort left its marks on organizational strategy. However, this effort may have not yet incorporated competitive methods and related performance measures.

In this context, service managers are facing increasing pressure to improve the different aspects of their organizational performance (Agus *et al.*, 2007; Beamon and Balcik, 2008; Ja and Lo, 2009). Taticchi *et al.* (2012) emphasized that there is a misalignment between PM systems, managerial decisions and actions linked to these decisions. The dynamic environment and changes in the business strategy may lead to the need to adopt new measures (Melnyk *et al.*, 2014). Mismatch and the limited understanding of the link between the information collected by PM systems and their overall impact on the firm's goals and strategy may lead to negative or adverse effects on the efficiency and competitiveness of the organization (Taticchi *et al.*, 2012). Therefore, the relationship between business strategy, competitive methods and performance measuring approach represent serious challenges. As these organizations strive toward sustainable competitive strategic advantage in a dynamic marketplace, the mismatch between strategic orientation and PM approach could lead to a strategic failure. Therefore, Franco-Santos *et al.* (2012) suggested performing more research to investigate the link between business strategic orientation and PM systems.

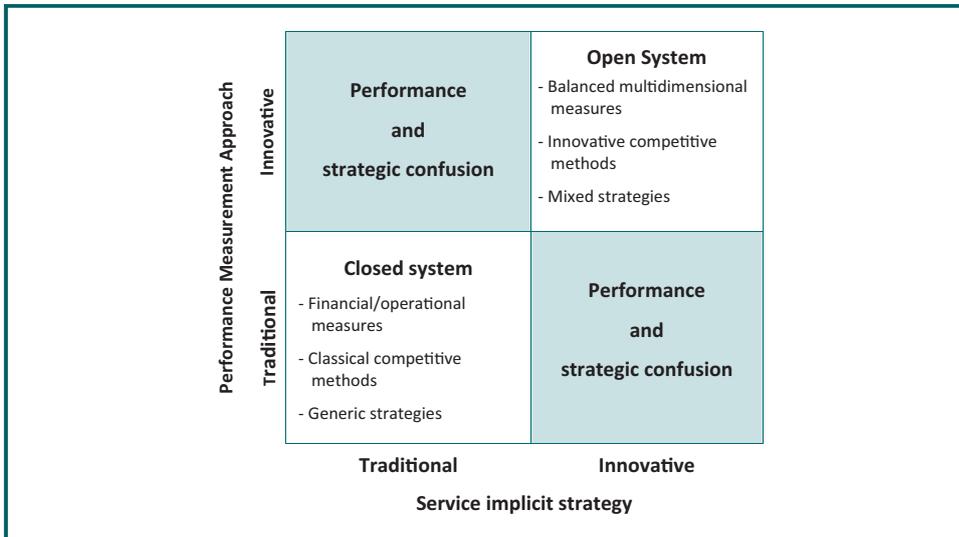
Figure 1 portrays the strategic mismatch, which might result from the misalignment of competitive methods and PM approach. This mismatch could lead to strategic ineffectiveness.

For example, having an innovative, mixed strategy, which is supported by traditionally based efficiency competitive methods and traditionally based performance measures, might not result in a sustainable competitive strategic advantage. In this context, strategic confusion will be the norm rather the exception.

This confusion leads to strategic inconsistency. This is the case especially when open system and innovation-driven service organizations, which use mixed strategies, are still utilizing traditional performance measures to gauge the implicit strategic orientation. The lack of an explicit strategy, which is formulated and implemented by a systematic strategic planning process, perhaps is the source of this strategic confusion. In this context, strategies are informal, implicit and, for the most part, are not deriving the competitive methods that should be used. This, in turn, leads to the use of the wrong performance measures.

Empirical evidence shows that the alignment of strategy and the PM system is important to achieve higher performance (Tung *et al.*, 2011; Franco-Santos *et al.*, 2012; Taticchi *et al.*, 2012; Melnyk *et al.*, 2014). However, the literature is lacking with regard to the aspect of alignment and fit (Melnyk *et al.*, 2014). Motivated by the increasing focus of service organizations on the customer orientation through the development of innovative strategies,

**Figure 1** Performance and strategic competitiveness



competitive methods and PM approaches, this study attempts to examine the important relationships among the above organizational variables in service operational settings. Specifically, using a cross-sectional sample of 69 Portuguese service organizations representing different service industries, factor analysis was used to extract the implicit strategies followed based on the choices of competitive methods deployed. The lack of explicit formal strategy makes it necessary to use competitive methods chosen as indicative of the practices strategic choices, or strategy. Next, cluster analysis was used to group the participating service organizations into distinct strategic groups. Finally, 63 measures of performance are used to characterize these groups to assess the alignment between the resulting implicit strategies and the type of performance measures used. This should uncover consistencies or mismatches, which service scholars and managers need to address.

This research has theoretical and practical contributions, which have significant implications. At the theoretical front, this research is cross-disciplinary in nature, as it attempts to integrate two bodies of knowledge: competitive strategy and PM. This type of cross-disciplinary research is needed, as it is consistent with the open system model used by today's service organizations. From a practical perspective, this research stresses the need to have strategic consistency among key systems of the service organizations. Managers of service organizations must invest in the resources needed to integrate the selected formal strategy with the right competitiveness methods and PM approach. This may require investments in new information systems, as well as changing some elements of the organizational culture.

## 2. Relevant literature

In recent years, the upsurge of globalization and the dynamic exogenous environment have stimulated a growing number of business firms to investigate the sustainability of their competitive position in the industry. In fact, business firms have begun to draw distinct strategies, clearly identify objectives, while progressively exploring the performance of their operations as an approach to improve competitiveness and maintain legitimacy (Mulvaney *et al.*, 2006; Lonqvist and Sillanpää, 2011; Tung *et al.*, 2011).

Indeed, several business firms have used various PM frameworks to measure and control the performance of their operations. PM frameworks facilitate and enhance the decision-making

process, improve operational efficiency and assess whether the business firm's strategic objectives are being achieved (Moxham, 2009; Taticchi *et al.*, 2012; Lonqvist and Sillanpää, 2011; Tung *et al.*, 2011). Consequently, PM has emerged in the literature and become an important field of research, given the vital impact it can have on operations and strategy.

PM is the process that quantifies the business firm's strategy, related objectives and actions into clearly defined metrics and measurable components (Neely *et al.*, 1995; Wang, 2012). The process relies on internal staff to extract, sort and report the data on those metrics (Lynch-Cerullo and Cooney, 2011; Herington *et al.*, 2013; Mulvaney *et al.*, 2006). The collected data will be then analyzed to evaluate actual outcomes (Lonqvist and Sillanpää, 2011), assess existing operations and capture changes (Lynch-Cerullo and Cooney, 2011), while aligning actions and objectives throughout the firm to fulfill existing strategic choices (Bourne *et al.*, 2013; Herington *et al.*, 2013).

Several themes have been investigated in the literature. For instance, numerous researchers have explored the paradigm shift from the financial aspect to the multidimensional approach concerning PM (Kaplan and Norton, 1996, 2001, 2007; Lipe and Salterio, 2000; Campbell *et al.*, 2015; Wang, 2012). Furthermore, several researchers have given attention to PM design, implementation and corresponding challenges and success factors (Kennerley and Neely, 2003; Kaplan and Norton, 2007; Lynch-Cerullo and Cooney, 2011; Taticchi *et al.*, 2012). Others have explored the effectiveness of PM systems (Crabtree and DeBusk, 2008; Tung *et al.*, 2011). However, research dealing with the importance of interdependencies between PM, competitive methods and the resulting strategic orientation in service operational environments have been lacking. The scarcities of such research provide the motivation for the current study.

### *2.1 The evolution of performance measurement*

In the past, business firms measured their performance based on their financial achievements such as sales revenue and profits. In fact, this approach allowed the firm to focus on final outcomes rather than on long-term valuable strategic objectives (González, 2004, Tung *et al.*, 2011; Campbell *et al.*, 2015). Therefore, managers from different functional departments have stressed the urgency, and the significance, of establishing new measures of greater relevance to their role (Chenhall and Langfield-Smith, 2007).

In essence, business firms emphasized the importance of securing a diverse and dynamic system that will allow them to explore the status of firm's operations and intangible assets, while continuously monitoring the dynamic business environment and strategy (Bititci *et al.*, 2000; Taticchi *et al.*, 2012; Wang, 2012). Consequently, new PM frameworks have emerged, and more prominence is given to the non-financial aspects (Kaplan and Norton, 1996; González, 2004, Tung *et al.*, 2011; Campbell *et al.*, 2015). Micheli and Kennerley (2005) and Taticchi *et al.* (2012) have assessed the different PM systems in the literature and discussed their design and implementation. Attention has been given to the importance of aligning PM systems to an organization's strategic orientation to ensure fit between what is measured and business goals/strategy. This is especially true in a dynamic environment (Franco-Santos *et al.*, 2012; Taticchi *et al.*, 2012; Melnyk *et al.*, 2014). Although there are many frameworks to measure performance found in the literature, the authors decided to emphasize the balanced scorecard framework, as it is the most widely used.

The balanced scorecard is one of the most recognized PM frameworks that takes into account both the financial and non-financial aspects (Kaplan and Norton, 1996; Taticchi *et al.*, 2012; Wang, 2012). The essence of Kaplan and Norton (1996) argument is to analyze diverse and composite measures throughout the firm to understand the entire business firm and its strategy. This approach is consistent with the notion that the firm's strategic orientation and objectives will not be realized unless more emphasis is given to different

performance aspects related to customers' satisfaction, internal processes and learning and growth, besides the financial aspect.

This PM framework captures both leading performance measures that are unique to each firm – i.e. customers' satisfaction, internal processes, learning and growth – and lagging measures that describe the consequences of decisions made – i.e. financial achievements such as profits or sales revenues (Kaplan and Norton, 1996, 2001, 2007; González, 2004; Tung *et al.*, 2011; Herington *et al.*, 2013).

The balanced scorecard framework models the business firm as an integrated structure and offers a holistic overview of the firm's operations and strategic orientation (Lynch-Cerullo and Cooney, 2011; Taticchi *et al.*, 2012; Campbell *et al.*, 2015). Several research studies have highlighted the role of balanced scorecards in achieving the firm's strategic performance objectives (Davis and Albright, 2004; Jusoh *et al.*, 2008; Ukko *et al.*, 2007). Indeed, giving close and comparable attention to all performance aspects in the balanced scorecard is viewed to be indispensable to the achievement of high levels of effectiveness (Tung *et al.*, 2011).

## 2.2 Performance measurement in service organizations

Even though recent PM frameworks have pointed toward a balanced and an integrated system of metrics and measurable components, it appears that the operationalization of these frameworks is obstinately a continuing challenge (Herington *et al.*, 2013), in particular for service firms (Laihonen *et al.*, 2014). Service firms provide intangible and customized products for customers, in contrast to manufacturing firms that assume the uniformity of final outcomes. Therefore, establishing a standardized set of metrics to monitor final outcomes and measuring their value for customers is arguably a profound challenge in service firms.

Jääskeläinen and Laihonen (2013) stressed the need to understand the challenges associated with non-traditional PM and the importance of understanding the process of applying them in a service environment. Service output hinges on individual employees possessing adequate skill and experience, the quality of the production system and the value of interactions between employees and customers (Chuang *et al.*, 2011; Masum *et al.*, 2015; Grönroos and Ojasalo, 2004; Lonqvist and Sillanpää, 2011; Jääskeläinen and Laihonen, 2013).

Therefore, using manufacturing PM frameworks in service context will likely lead to incongruous outcomes (Grönroos and Ojasalo, 2004). As such, these frameworks give limited guidance on how to measure the intangible assets retained by individual employees and how to assess the intensive interactions with customers (Grönroos and Ojasalo, 2004; Herington *et al.*, 2013; Jääskeläinen and Laihonen, 2013; Lettice *et al.*, 2006). As a consequence, recent research studies have emphasized the significance of using both qualitative and quantitative metrics when measuring the performance of service firms (Moxham, 2009; Lonqvist and Sillanpää, 2011). Indeed, using qualitative measures will increase subjectivity which may lead to less reliability and credibility of results (Jääskeläinen and Laihonen, 2013).

Despite the fact that existing PM frameworks advocate the adoption of a balanced stance across the different aspects of performance (e.g. the balanced scorecard), service firms still do differ in the extent of adoption of specific aspects. For instance, Harris and Mongiello (2001) highlighted that managers initially give more emphasis to learning and growth when they seek to improve hotel's business performance. However, Chuang *et al.* (2011) have found that the customers aspect is the most important when measuring performance in the financial service industry, whereas Wang (2012) found that internal processes – knowledge management – is the most important aspect in consulting firms and that learning and growth was ranked second. Jääskeläinen and Laihonen (2013) believe that the customer

aspect has not been fully recognized when measuring the performance of service firms, even though service firm's performance is a customer-specific phenomenon.

These inconsistencies may lead to strategic failure when decision-makers seek to adopt standardized PM framework across various service contexts.

### *2.3 Linking performance measurement frameworks with strategy*

The prosperity of a PM framework depends on its design, implementation, and its consistency with the strategic orientation of the business firm. Successful strategy mainly relies heavily on a series of endogenous and exogenous analysis and a set of strategic choices to achieve firm's objectives and mission (Barney and Hesterly, 2014). Indeed, PM frameworks supplement useful tools and generate sufficient and timely information for decision-makers (Hoque, 2004; Harris and Mongiello, 2001; Lynch-Cerullo and Cooney, 2011; Taticchi *et al.*, 2012; Speziale and Kloviené, 2014; Campbell *et al.*, 2015). These frameworks facilitate feedback and validate the efficacy of the strategic orientation taken by business firms (Kaplan and Norton, 1996, 2007; Campbell *et al.*, 2015).

In a dynamic environment where business firms strive to achieve sustained competitive position, performance confusion and the mismatch between strategic orientation and PM approaches may lead to strategic failure. Performance measures and related metrics have the potential to positively drive the organization and its vision, strategy and employee' expectations toward competitive excellence (Choong, 2013). This potential is magnified when the organization integrates PM practices, competitive methods and overall organization strategic orientation.

Taticchi *et al.* (2012) have proposed several facets for designing and implementing a successful PM frameworks. To summarize, the authors have suggested assessing the status of the current system to identify the baseline values and explore existing strategies. In addition, they draw attention to the firm's environment that should be reflected when designing PM metrics and indicators. Indeed, the authors emphasized the importance of conveying performance appraisal across the business firm to align operations with the business strategy. In the same vein, they expressed the need to perform regular reviews and continuous assessment of the framework to reflect changes that occur in the business firm's environment and its strategic orientation.

In fact, PM frameworks entail the selection of appropriate metrics and indicators that recognize the business firm's operations, environment and strategic orientation (Lynch-Cerullo and Cooney, 2011; Taticchi *et al.*, 2012). As business firms operate under different industrial sectors (service vs manufacturing), have different stakeholder groups and are dispersed worldwide, different PM frameworks and metrics may need to be used.

Foremost, PM frameworks and their associated metrics should capture the distinction between the various industrial sectors. The nature of products (goods or services) and the diversity of operations and activities may need to be realized to design a compatible PM framework and metrics (Harris and Mongiello, 2001).

In addition, PM frameworks and their associated metrics should recognize the changing expectations and requirements of different stakeholder groups (Mulvaney *et al.*, 2006; Lonnqvist and Sillanpää, 2011; Taticchi *et al.*, 2012). The considerable diversity of stakeholders may enforce manager to regularly explore and prioritize stakeholder groups based on importance and power (Mitchell *et al.*, 1997). Likewise, business firms are dispersed worldwide and operate under different cultural norms. Even though many firms use similar PM frameworks, these frameworks may generate different outcomes because of differences in cultural contexts (Chuang *et al.*, 2011).

Indeed, the adequacy of resources – internal capabilities – is an important factor when the business firm attempts to design and implement PM framework (Lynch-Cerullo and Cooney,

2011) and to achieve sustained competitive advantage (Barney and Hesterly, 2014). Taticchi *et al.* (2012) underscored the need to understand performance in the context of the limited resources available to SMEs firms. These firms, with limited resources – either financial, human or an appropriate IT to collect and analyze information – may lag behind their large counterparts.

As a consequence, there is a necessity to design and implement a dynamic PM framework that is context-dependent (Harris and Mongiello, 2001; Bourne *et al.*, 2013; Herington *et al.*, 2013). Prospective PM frameworks and their associated metrics should be reviewed and updated on regular basis to perceive changes in stakeholder's expectations and the surrounding environment (Bititci *et al.*, 2000; Kennerley and Neely, 2003; Tung *et al.*, 2011; Taticchi *et al.*, 2012). As such, this may eventually enhance the consistency between the PM framework and the strategic orientation and competitive methods of the business firm, leading to strategic success and prosperity.

In conclusion, there is still a need for more empirical research and generalization of PM. This can be achieved through a more detailed investigation of contingency factors in service business environment. Strategy focuses on business objectives and the strategic choices (i.e. actions and competitive methods) that will be taken to achieve a competitive position in the industry (Barney and Hesterly, 2014).

Service firms are context-specific in nature and use customized and different measurements to improve their performance and to align operations with business strategy. Contingency approaches and complex theories should be adopted to measure the performance of these service firms. Indeed, Taticchi *et al.* (2012) and Melnyk *et al.* (2014) have stressed the need to align the PM system with the organization's strategy. In this context, and building on business strategy and PM streams, this research highlights a need to identify and understand the consistency of PM and its association with business strategy and competitive methods, in particular to service firms. It will have managerial and research merits, as there are limited research studies dedicated to service industry and the fit between strategy and PM.

In general, the literature reviewed in relation to both to PM and strategic orientations clearly underscored the need for more research with regard to the relationships between these two important aspects of the service organization. In this context, the match, or lack thereof, between the strategic orientation of a service organization and the PM approach used represents an area where more research is needed. This conclusion provides a strong justification for the current research.

### 3. Methodology

#### 3.1 Instrument

To achieve the objective of this study, a survey-based instrument was used to collect relevant demographic data from the participants in addition to data pertaining to the variables studied. The research instrument was designed based on the works of Dess and Davis (1984), Jácome *et al.* (2002) and Gomes *et al.* (2004). The instrument was then adapted to fit the Portuguese service environment. After that, the survey questionnaire was reviewed by a panel of academics and top-level service managers to ensure validity.

In total, 33 questions related with competitive methods were included in this instrument. Out of which, 21 were derived from seminal work on generic strategies (Davis, 1984). Five questions dealt with the strategic orientations of Portuguese organizations (Jácome *et al.*, 2002). Finally, seven new questions related to e-business strategies, environment health and safety in the workplace standards and information technologies utilization, were included. For each of the 33 competitive methods used, executives of service organizations were asked to indicate their relevance to the organization's competitive strategy.

In addition, this instrument included 63 performance measures. These measures encompassed performance aspects related to service quality and customer satisfaction,

process efficiency, service and process innovation, competitive environment, quality/independence of management, human resource management and social responsibility. For each of the 63 performance measures used, executives of Portuguese service organizations were asked to indicate the predictive value (relevance), the performance information availability and the extent of their utilization.

Finally, it contained demographic questions related to geographic location, CAE classifications – Portuguese Classification of Economic Activities (CAE Rev.2.1), number of employees, whether the respondents were ISO 9000/14000 or OSHAS 1800 (Occupational Health and Safety Standard, 1800) certified. Respondents were also asked to indicate whether they used integrated performance management systems (PMS) and, if so, how many functional departments contributed to the PMS.

### 3.2 Sample and data analysis

For the purpose of this study, a random sample of 500 organizations was obtained from the Coface Serviços Portugal database, which includes the largest 1,500 Portuguese service organizations. This provided a convenient population from which to choose the random sample. Several performance dimensions have been investigated; therefore, the survey instruments were mailed to top-level managers who have an overall view of the different performance dimensions in the organization. In total, 69 completed responses were received. In addition, 17 were returned because the firms do not exist anymore or because of unwillingness to participate in the study, which resulted in a response rate of 14.3 per cent. This response rate is consistent with literature (Bhatt, 2000; Jugdev *et al.*, 2007; Metts, 2007; Valsamakis and Sprague, 2001).

No significant differences ( $\alpha = 0.05$ ) regarding the characteristics of respondents relative to the non-respondents were detected. Respondents' profile is presented in Table I.

The unit of analysis in this research is service organizations. In the first phase of this research project, exploratory factor analysis with principal components method was used to extract the underlying dimensions (factors), representing the strategies followed by the studied organizations. Using a cluster analysis procedure, the existence of groups of organizations with similar competitive factors considered critical to enhancing organizational performance was also investigated.

In the second phase of this research project, a multiple regression analysis procedure was used to evaluate the profile of the executives regarding the relative use of financial and non-financial measures. The linear relationship tested was based on the variables included in the instrument. The frequency of utilization of the performance measures (FU) was assumed to be a function of its predictive value (PV) and of the ease with which information for the measure could be acquired (EA). Therefore, the model tested was:

$$FU = f(PV, EA).$$

The linear function to be estimated is:

$$\overline{FU}_i = \alpha_0 + \alpha_1 \overline{PV}_i + \alpha_2 \overline{EA}_i + e_i$$

$\overline{FU}_i$  – The mean frequency of use score on the  $i^{\text{th}}$  measure.

$\overline{PV}_i$  – The mean predictive value score on the  $i^{\text{th}}$  measure.

$\overline{EA}_i$  – The mean ease of acquisition score on the  $i^{\text{th}}$  measure.

$e_i$  – Variable that represents the residual.

$\alpha_0, \alpha_1, \alpha_2$  – Linear parameters.

**Table I** Respondents' profile

<i>Item</i>	<i>Frequency</i>	<i>(%)</i>
<i>Number of employers</i>		
From 50 to 99	30	43.48
From 100 a 199	12	17.39
From 200 a 499	7	10.14
From 500 a 999	5	7.25
From 1,000 or more	6	8.70
No response	9	13.04
Total	69	100.00
<i>Certification</i>		
Not implemented	27	39.13
ISO 9000	33	47.83
ISO 14000	8	11.59
OSHAS1800	7	10.14
Other standards	5	7.25
No response	4	5.80
<i>Integrated PMS</i>		
Not implemented	35	50.72
Production only	1	1.45
Production and one other department	1	1.45
Production and two others departments	4	5.80
Production and three others departments	5	7.25
Financial only	1	1.45
All departments	5	7.25
Did not specified which departments	10	14.49
No response	7	10.14
Total	69	100.00

The observation unit for this model was the average of the responses of all executives for each measure. For the purpose of the regression analysis, all relevant regression assumptions were verified and found to be satisfied.

The gap analysis procedure was also used to gain a better understanding of the relative importance of the non-financial measures. The differences between the predictive value and the ease of information acquisition for each of the 63 measures were examined. The equation below was used:

$$GAP_i = (PV_i - EA_i)PV_i.$$

The differences were multiplied by their predictive values to provide scores that reflect the relative importance of the predictive value on the measure utilization (Dempsey *et al.*, 1997; Foster and Gupta, 1994; Gomes *et al.*, 2004). As such, the larger this indicator is, the greater the disparity between the usefulness of the measure and its information availability.

Finally, the relationship between the executives' PM approaches and their strategic orientations was analyzed.

## 4. Results

### 4.1 Strategic practices

In the first phase of this research project, the competitive methods that executives of service organizations tended to value were grouped into seven factors representing strategic dimensions (Gomes *et al.*, 2014). Factor one highlights the importance that Portuguese service managers are giving to the development of the human resources needed to face the

increasingly growing competition through the utilization of information technology to contribute to high levels of overall service efficiency. Factor two reveals an organizational concern for the importance of responsiveness and flexibility within a growing market. Factor three underscores an organizational commitment to financial efficiency. Factor four has a clear market-based flexibility flavor. Factor five underscores the importance of information technologies and systems along with e-business capabilities to pave the road to effective delivery of service. Factor six highlights the importance of the market penetration capabilities. Factor seven emphasizes the role of standards to achieving service quality and environmental goals.

To explore the relationships among the strategic dimensions found, cluster analysis was used (Gomes *et al.*, 2014). The observation unit for the cluster analysis was based on each extracted factor. A four-cluster solution, with significant differences between all strategic dimensions, was obtained.

#### 4.2 Performance management profiles

In the second phase of this research project, the profile of the participants in relation to their extent of utilization of financial and non-financial measures was investigated using a linear regression procedure. The results for  $R^2$  varies between 77.7 and 95.2 per cent (Table II). This means a high percentage of the total variability in the frequency of utilization has been explained by the predictive value and ease of information acquisition. All the estimated regression coefficients were found to be significant ( $\alpha = 0.01$ ).

One may speculate that organizations of each strategic group, because of different strategic orientations, may tend to emphasize certain performance aspects in comparison to their counterparts. Because of the potential link between strategy orientation and PM practices, this issue was explored using the model below:

$$\overline{FU}_i = \alpha_0 + \alpha_1 \overline{PV}_i + \alpha_2 \overline{EA}_i + \alpha_3 SG_i + e_i$$

In the above model,  $SG_i$  is a binary variable. This variable assumes the value of 1 if an executive represents a service organization belongs to a specific strategic group, and the value of 0 if an executive represents service organization belongs to another specific strategic group.

Based on the results of all paired models, the coefficient of the variable SG only was found statistically significant ( $\alpha = 0.05$ ) for the pairs AB and AD. Therefore, it is concluded that significant differences exist between the executives of strategic groups A-B and A-D with respect to the profile of utilization of the measures studied.

To identify these differences, the characterization of these strategic groups is presented next.

**4.2.1 Group A.** Group A (29.7 per cent of the sample) included organizations which tended to emphasize the service efficiency. These organizations are neglecting important strategic dimensions related to customers, namely, e-service and cost (Table III). They are also neglecting the market penetration capabilities, which can make or break their future strategic survival.

**Table II** Regression results relating PM profile of each strategic group

	Group A	Group B	Group C	Group D
$R^2$	0.839	0.952	0.777	0.832
	Unstandardized coefficients			
(Constant)	-0.597	-0.616	-0.244	-1.521
Predictive value	0.906	0.694	0.584	1.071
Ease acquiring information	0.213	0.388	0.419	0.249

Notes: Dependent Variable: Frequency of utilization; All the coefficients are significant ( $\alpha = 0.001$ )

**Table III** Strategic/PM profile of group A

<i>Strategic orientations</i>	<i>Relevance</i>	<i>Performance dimensions</i>	<i>FU</i>	<i>GAP</i>
Service efficiency	3.852 (4)	Human resource management	3.44	0.65
Service responsiveness and flexibility	3.397 (4)	Financial	3.36	-1.97
Market-based flexibility capabilities	2.956 (4)	Service quality and customer satisfaction	2.98	-0.53
Low cost and standards Capabilities	2.929 (4)	Competitive environment	2.70	-0.39
E-service capabilities	2.508 (4)	Process efficiency	2.51	-0.38
Market penetration capabilities	2.307 (4)	Quality/independence of management	2.47	0.17
Financial efficiency	2.276 (4)	Social responsibility	2.40	-0.17
		Service and process innovation	1.80	-0.23
<i>Most relevant competitive methods</i>		<i>Most used performance measures</i>	<i>FU</i>	<i>GAP</i>
Customer service	4,42	Sales	4.63	-2.65
Operating efficiency	4,21	Cash flow	4.16	-0.85
Meeting delivery dates	4,00	EBIT&EI ÷ Sales	3.84	-0.81
Service quality control	3,89	Customer surveys	3.79	4.11
Experienced/trained personnel	3,89	Customer complaints	3.79	1.26
Competitive pricing	3,89	Warranty claims	3.63	-0.20
Service quality improvement	3,89	Percent of missed delay dates	3.58	1.15
Continuous investment in IT resources	3,58	Employee training	3.53	0.58
<i>Industries and firm dimension</i>		<i>Most important performance measures</i>	<i>VP</i>	<i>GAP</i>
Retail trade, except of motor vehicles and motorcycles		Sales	4.21	-2.65
Land transport		Customer surveys	4.11	4.11
Supporting and auxiliary transport activities		Cash flow	4.05	-0.85
Real estate activities		Customer complaints	4.05	1.26
		EBIT&EI ÷ Sales	3.84	-0.81
Firm's dimension (average no. workers): 165		Experience/reputation of management	3.71	-0.19
		Employee involvement	3.68	1.91
		Employee training	3.63	0.58

**Notes:** Numbers in parentheses are ranks of scores of strategic dimensions in descending order along the groups; Strategic orientations are sorted according their relevance within each strategic group; Performance dimensions are sorted according their utilization within each strategic group

Their performance measuring profile is showing a low utilization of important performance dimensions, such as the process innovation, the social responsibility and the quality of management. This profile also shows a clear misalignment of competitive methods and performance measuring approach. However, these organizations are trying to overcome this problem by using important performance measures which can improve their strategic orientation. The model representing their performance profile (Table II) shows that the performance measures utilization is much more sensible to the predictive value than to the information availability. As such, the executives are trying to use performance measures relating the involvement of their main stakeholders, even with a high cost of information. Although they are showing a traditional/financial performance measuring profile, they are also struggling to capture and to measure the employee and customer involvement.

**4.2.2 Group B.** Group B (31.3 per cent of the sample) includes organizations which tended to emphasize the service efficiency and responsiveness. However, it appears that they are differentiating based on cost and E-services capabilities (Table IV). The market penetration capabilities strategic dimension is the lowest strategic choice among organizations in this group.

Their performance measuring profile is showing a low utilization of important performance dimensions, such as the process innovation, the social responsibility and the quality of management. Similar to organizations of the strategic Group A, this profile also shows misalignment of competitive methods and performance measuring approach. However, unlike organizations of strategic group A, these organizations appear to think that information is too expensive, despite their importance to implement and maintain their strategic orientation. Although the model related with their performance profile (Table II)

**Table IV** Strategic/PM profile of group B

<i>Strategic orientations</i>	<i>Relevance</i>	<i>Performance dimensions</i>	<i>FU</i>	<i>GAP</i>
Service efficiency	4.553 (2)	Financial	3.73	0.41
Service responsiveness and flexibility	4.364 (2)	Human resource management	3.56	-0.26
Low cost and standards capabilities	3.892 (3)	Service quality and customer satisfaction	3.36	1.68
E-service capabilities	3.584 (2)	Process efficiency	3.16	0.50
Financial efficiency	3.175 (2)	Competitive environment	3.14	1.12
Market-based flexibility capabilities	3.125 (3)	Quality/independence of management	3.13	-0.53
Market penetration capabilities	2.483 (3)	Social responsibility	3.06	0.03
		Service and process innovation	2.11	1.01
<i>Most relevant competitive methods</i>		<i>Most used performance measures</i>	<i>FU</i>	<i>GAP</i>
Service quality improvement	4,85	Sales	4.95	0.24
Operating efficiency	4,75	Employee training	4.37	-0.71
Meeting delivery dates	4,68	Future investment needs	4.11	1.88
Customer service	4,60	EBIT&EI ÷ Sales	4.00	0.70
Reputation within industry	4,60	Labor-management relations	3.88	0.51
Continuous improvement of service process	4,60	Customer diversification	3.84	0.77
Service quality control	4,55	Participation of shareholders on the firm's management	3.83	-0.65
Experienced/trained personnel	4,55	45. Continuity of management	3.82	-1.40
<i>Industries, and firm dimension</i>		<i>Most important performance measures</i>	<i>VP</i>	<i>GAP</i>
Land transport		Sales	4.79	0.24
Supporting and auxiliary transport activities		Experience/reputation of management	4.41	1.81
Computer and related activities		EBIT&EI ÷ Sales	4.37	0.70
Other business activities		Employee training	4.28	-0.71
		Customer complaints	4.17	2.46
Firm's dimension (average no. workers): 102		Future investment needs	4.17	1.88
		Return on assets	4.16	0.87
		2. Cash flow	4.11	1.32

**Notes:** Numbers in parentheses are ranks of scores of strategic dimensions in descending order along the groups; Strategic orientations are sorted according their relevance within each strategic group; Performance dimensions are sorted according their utilization within each strategic group

shows that the performance measures utilization is more sensible to the predictive value than to the information availability, this seems not to be sufficient to promote the utilization of measures that could improve their strategic competitiveness. They are only prepared to pay for information related to future investments. However, this is not sufficient.

**4.2.3 Group C.** Organizations of Group C (14.1 per cent of the sample) tended to use a generic hybrid strategy, with an equal emphasis on almost strategic dimensions (Table V). They appear to not value the financial efficiency enough. Based on Porter's classical generic strategic model, this strategic behavior can be labeled as a typical stuck-in-the-middle.

According to the regression results, the performance measuring profile of organizations from strategic Group C is not significantly different ( $\alpha = 0.01$ ) from organizations of the other strategic groups. In this case, the misalignment of competitive methods and performance measuring approach is difficult to identify, as these organizations are not following a clear strategic orientation. However, similar to organizations of strategic Group A, these organizations are making effort to use performance measures that they attach high predictive value to, although they have to pay to obtain the related information. It is to be noted that the model representing the performance profile (Table II) shows that the performance measures utilization is almost equally sensible to the predictive value and to the information availability. As such, using performance measures relating the involvement of their main stakeholders, even with a high cost of information, seems to be a decision based on a random choice, or suggested by external business actors. To be noted, this strategic group includes the organizations of highest dimension of the sample.

**Table V** Strategic/PM profile of group C

<i>Strategic orientations</i>	<i>Relevance</i>	<i>Performance dimensions</i>	<i>FU</i>	<i>GAP</i>
Service efficiency	4.462 (3)	Financial	4.06	-1.88
Service responsiveness and flexibility	4.111 (3)	Service quality and customer satisfaction	3.68	1.26
Low cost and standards capabilities	4.001 (2)	Human resource management	3.56	0.93
Market penetration capabilities	3.889 (2)	Social responsibility	3.34	1.13
Market-based flexibility capabilities	3.250 (2)	Quality/independence of management	3.33	-0.38
E-service capabilities	3.000 (3)	Competitive environment	3.30	-0.10
Financial Efficiency	2.500 (3)	Process efficiency	3.28	0.10
		Service and process innovation	2.21	0.55
<i>Most relevant competitive methods</i>		<i>Most used performance measures</i>	<i>FU</i>	<i>GAP</i>
Operating efficiency	5,00	Sales	4.78	-0.69
Customer service	4,89	Cash flow	4.67	-0.77
Service quality control	4,78	Employee training	4.44	1.63
Experienced/trained personnel	4,56	Customer complaints	4.44	1.48
Forecasting market growth	4,44	EBIT&EI ÷ Sales	4.33	-0.81
Reputation within industry	4,33	Continuity of management	4.22	0.95
Meeting delivery dates	4,33	Return on assets	4.11	-1.75
Competitive pricing	4,22	Earnings per share	4.00	-2.03
<i>Industries, and firm dimension</i>		<i>Most important performance measures</i>	<i>VP</i>	<i>GAP</i>
Land transport		Employee training	4.78	1.63
Retail trade, except of motor vehicles and motorcycles		Sales	4.63	-0.69
		Experience/reputation of management	4.56	0.55
		Cash flow	4.50	-0.77
		Employee involvement	4.44	4.71
Firm's dimension (average no. workers): 314		Customer surveys	4.33	2.86
		Customer complaints	4.33	1.43
		Continuity of management	4.33	0.95

**Notes:** Numbers in parentheses are ranks of scores of strategic dimensions in descending order along the groups; Strategic orientations are sorted according their relevance within each strategic group; Performance dimensions are sorted according their utilization within each strategic group

**4.2.4 Group D.** The organizations in Group D (25.0 per cent of the sample) appear to use a balanced approach in terms of the utilization of strategic dimensions. Although they tended to assign the highest scores to all seven strategic dimensions, market leadership is the least emphasized, compared to the other strategic choices in the group (Table VI). They are clearly facing the new market challenges with all the strategic weapons they can master.

Their performance measuring profile, like organizations of strategic Group A, is showing a low utilization of important performance dimensions, such as the process innovation, the social responsibility and the quality of management. This profile also shows a misalignment of competitive methods and performance measuring approach. However, the model representing their performance profile (Table II) shows that the performance measures utilization is much more sensible to the predictive value than to the information availability. Reflecting this profile, executives of these organizations are using performance measures relating to the employee involvement and to the service responsiveness, even with a high cost of information. Because of this performance profile, these organizations are presenting a more innovative approach to measuring their organizational performance, including five non-financial measures with information deficit in the group of the seven more used performance measures. They are also trying to match their performance measures with their competitive methods.

## 5. Conclusion

Using a sample of Portuguese service organizations, this research intended to analyze the dynamic relationship that defines the balance between performance and strategic orientations for service organizations. In the process, the consistency between the PM approach and the

**Table VI** Strategic/PM profile of group D

<i>Strategic orientations</i>	<i>Relevance</i>	<i>Performance dimensions</i>	<i>FU</i>	<i>GAP</i>
Service efficiency	4.752 (1)	Service quality and customer satisfaction	3.88	0.70
Service responsiveness and flexibility	4.638 (1)	Human resource management	3.87	-0.56
Service practices	4.563 (1)	Financial	3.86	-1.39
Market penetration capabilities	4.418 (1)	Process efficiency	3.65	0.11
Financial efficiency	4.308 (1)	Competitive environment	3.63	1.66
Low cost and standards capabilities	4.188 (1)	Quality/independence of management	3.52	-0.46
Market-based flexibility Capabilities	3.938 (1)	Social responsibility	3.11	0.64
		Service and process innovation	3.02	-0.25
<i>Most relevant competitive methods</i>		<i>Most used performance measures</i>	<i>FU</i>	<i>GAP</i>
Customer service	4,94	Sales	4.44	-0.59
Service quality control	4,88	Employee involvement	4.38	1.40
Meeting service rendering times and dates	4,88	Service responsiveness	4.27	1.45
Operating efficiency	4,81	Operating costs per employee	4.25	0.54
E-operations	4,81	Labor-management relations	4.25	0.54
Service quality improvement	4,75	Customer diversification	4.19	1.09
Employees' competencies in IT	4,75	EBIT&EI ÷ Sales	4.13	-0.25
Reputation within industry	4,69	Participation of shareholders on the firm's management	4.13	-0.25
<i>Industries, and firm dimension</i>		<i>Most important performance measures</i>	<i>VP</i>	<i>GAP</i>
Land transport		Sales	4.50	-0.59
Computer and related activities		Employee involvement	4.50	1.40
Other business activities		Service responsiveness	4.40	1.45
Public administration and defense		Employee training	4.38	0.31
		Customer surveys	4.38	3.29
Firm's dimension (average no. workers): 91		Safety record	4.31	-0.56
		Continuity of management	4.27	-0.56
		Participation of shareholders on the firm's management	4.25	-0.25

**Notes:** Numbers in parentheses are ranks of scores of strategic dimensions in descending order along the groups; Strategic orientations are sorted according their relevance within each strategic group; Performance dimensions and are sorted according their utilization within each strategic group

strategic competitive orientations is examined. Based on the literature reviewed and the results of this study, the following conclusions and implications are highlighted.

First, although most of the services organizations included in the different strategic groups are still emphasizing traditional strategic orientations, following a closed system orientation, some of them are trying to use more innovative competitive methods (strategic Group D). This is not an easy task because of the difficulties to deal with resistance to innovation (Cavalcante *et al.*, 2011). However, managers of these services organizations appear to be moving toward the open system perspective.

Second, managers of services organizations are still, to a certain extent, emphasizing the financial nature of their organizational performance. Although these managers are beginning to use non-financial measures of performance, it does not appear that such measures are being currently given the same importance as their financial counterparts. Therefore, the balance between financial and non-financial PM practices has not yet been reached by most of service organizations. However, managers of some service organizations appear to be making efforts to achieve this balance.

Third, it appears that managers of service organizations belonging to strategic Group D are aware of the urgent need to follow an open system strategic and operational orientation. However, perhaps because of market dynamics, they are failing to correctly deploy and measure the competitive resources necessary to support their strategies. In this context, these managers need to use a dynamic PMS that allows them to override this apparent mismatch between strategic orientation and PM practices. As such, additional investments in resources and systems might be needed.

Overall, this research points to a misalignment between strategic orientations and PM approaches of service organizations. This is an interesting result because it would have been difficult to be identified, if the two bodies of knowledge were examined separately.

## 6. Implications

The results of this study appear to underline the strategy, PM inconsistency, as illustrated in [Figure 1](#). Therefore, today's service organizations need innovative visions. Such visions should stress new mixed strategies, broad competitive methods and organization-wide performance measures. The re-engineering of the organization for such vision requires the modification of strategy, procedures, culture and systems.

At the strategic level, the organization must examine the new challenges and realities of its market, which are imposed by the evolving demands of customers and the accelerated technological development associated with service delivery. This examination should capitalize on benchmarking practices to uncover the most suitable strategic approach, which is consistent with the customer orientation. The process of investigating and implementing a new strategic approach should be accomplished through the establishment of an organizational strategic planning system. In this context, existing systems must be reengineered to ensure sensitivity to developments in the external environment.

Once a new and innovative strategic approach has been identified and the strategic planning system has been redesigned, new procedures related to the selection of appropriate competitive methods and performance measures must be integrated into the strategic planning system. The competitive methods procedures must mix the traditional approaches to competitiveness with the more innovative and technology-based methods. In this context, competitive methods, which could be labeled as the e-methods, including e-business, business-to-customer and business-to-business, must be integrated with traditional methods to ensure internal efficiency, as well as responsiveness to the competitive environment. As such, existing procedures that are consistent with the mere efficiency approach, or the internal organizational focus, must be reengineered and broadened to accommodate the more external and effectiveness-oriented competitive methods. These procedures also must stress the idea of measuring the intangible aspects of service, in addition to the most tangible aspects of service operations and delivery to the customer.

From a system perspective, an innovative information system, which incorporates and integrates strategic planning, competitive methods and PM, must be initiated and monitored frequently. This would serve to gauge its own performance, as well as monitoring the different aspects of organizational performance which are consistent with the strategic orientation of the service organization. To facilitate the effective operations of such system, and the changes associated with it, the organizational culture must be modified to reward collective performance rather than individual units or departments' performance. In essence, the collective performance of the organization as a whole should be linked to the reward system associated with the key participants of this system and its effectiveness. Such organizational change requires the close and persistent managerial supervision and insistence on modifying the traditional and existing practices and ensuring its acceptance. This may require management of service organizations to actively involve their employees, customers and suppliers in this process of change.

The above strategic, procedural, system and cultural modifications and engineering in service organizations should be geared toward making the organizational strategy drive the competitive methods and the performance measures and measurement associated with them. This tends to ensure a strategic competitive effectiveness for the entire organization. Such approach will not compromise the internal efficiency of the organization, rather it will ensure the link between the organization and its external environment. In the process, this approach should enhance the overall organizational efficiency, responsiveness and overall effectiveness.

From a scholarly perspective, applied research in these three areas, mainly strategic orientation, competitive methods and performance measures and measurement are needed to refine our understanding of these individual disciplines and the dynamic relationship that exists among them. In this context, an integrated framework aimed at facilitating the application and integration of these three bodies of knowledge is needed to benefit the practice of management in service organizations. Existing frameworks which tend to emphasize one area or another should be re-examined to accommodate a more synergetic and systematic approach to the integration of business strategy, competitive methods and performance management in a service operational environment. Such applied research will benefit researchers in terms of constructing new theoretical frameworks and deepening our understanding of how these frameworks should be modified to lend themselves to the needs of the management of the modern organizational service operational systems.

The results of our research clearly point to the need for such frameworks, which integrate these three critical elements in organizational culture, which is customer- and effectiveness-oriented. The aim should be clearly on integrating internal processes with external demands and challenges to move service organizations into the modern strategic competitive environment, which is dictated by new challenges and realities.

## References

- Agus, A., Barker, S. and Kandampully, J. (2007), "An exploratory study of service quality in the Malaysian public service sector", *International Journal of Quality & Reliability Management*, Vol. 24 No. 2, pp. 177-190.
- Barney, J.B. and Hesterly, W.S. (2014), *Strategic Management and Competitive Advantage: Concepts and Cases*, 5th ed., Pearson, New York.
- Beamon, B.M. and Balcik, B. (2008), "Performance measurement in humanitarian relief chains", *International Journal of Public Sector Management*, Vol. 21 No. 1, pp. 4-25.
- Bhatt, G.D. (2000), "An empirical examination of the effects of information systems integration on business process improvement", *International Journal of Operations & Production Management*, Vol. 20 No. 11, pp. 1331-1359.
- Bititci, U.S., Turner, T. and Begemann, C. (2000), "Dynamics of performance measurement systems", *International Journal of Operations & Production Management*, Vol. 20 No. 6, pp. 692-704.
- Bourne, M., Pavlov, A., Franco-Santos, M., Lucianetti, L. and Mura, M. (2013), "Generating organisational performance: the contributing effects of performance measurement and human resource management practices", *International Journal of Operations & Production Management*, Vol. 33 Nos 11/12, pp. 1599-1622.
- Campbell, D., Datar, S.M., Kulp, S.L. and Narayanan, V.G. (2015), "Testing strategy with multiple performance measures: evidence from a balanced scorecard at Store24", *Journal of Management Accounting Research*, Vol. 27 No. 2, pp. 39-65.
- Cavalcante, S., Kesting, P. and Ulhøi, J. (2011), "Business model dynamics and innovation: (re) establishing the missing linkages", *Management Decision*, Vol. 49 No. 8, pp. 1327-1342.
- Chenhall, R.H. and Langfield-Smith, K. (2007), "Multiple perspectives of performance measures", *European Management Journal*, Vol. 25 No. 4, pp. 266-282.
- Choong, K.K. (2013), "Understanding the features of performance measurement system: a literature review", *Measuring Business Excellence*, Vol. 17 No. 4, pp. 102-121.
- Chuang, L.M., Liu, C.C., Tsai, W.C. and Yang, C.C. (2011), "A typology and assessment of human resources performance in the financial services industry: the human resources scorecard perspective", *Journal of Information and Optimization Sciences*, Vol. 32 No. 5, pp. 1201-1217.
- Crabtree, A.D. and DeBusk, G.K. (2008), "The effects of adopting the balanced scorecard on shareholder returns", *Advances in Accounting*, Vol. 24 No. 1, pp. 8-15.
- Davis, P.S. (1984), "Porter's (1980) generic strategies as determinants of strategic group membership and organizational performance", *Academy of Management Journal*, Vol. 27 No. 3, pp. 467-488.
- Davis, S. and Albright, T. (2004), "An investigation of the effect of balanced scorecard implementation in financial performance", *Management Accounting Research*, Vol. 15 No. 2, pp. 135-153.

Dempsey, S.J., Gatti, J.F., Grinnell, D.J. and Cats-Baril, W.L. (1997), "The use of strategic performance variables as leading indicators in financial analysts' forecasts", *Journal of Financial Statement Analysis*, Vol. 2 No. 4, pp. 61-79.

Foster, G. and Gupta, M. (1994), "Marketing, cost management and management accounting", *Journal of Management Accounting Research*, Vol. 6, pp. 43-47.

Franco-Santos, M., Lucianetti, L. and Bourne, M. (2012), "Contemporary performance measurement systems: a review of their consequences and a framework for research", *Management accounting research*, Vol. 23 No. 2, pp. 79-119.

Gomes, C.F., Yasin, M.M. and Lisboa, J.V. (2004), "An examination of manufacturing organizations performance evaluation: analysis, implications and a framework for future research", *International Journal of Operations & Production Management*, Vol. 24 No. 5, pp. 488-513.

Gomes, C.F., Yasin, M.M., Lisboa, J.V. and Small, M.H. (2014), "Discerning competitive strategy through an assessment of competitive methods", *Service Industries Journal*, Vol. 34 No. 12, pp. 974-998.

González, S.M. (2004), "Improving human resources management: some practical questions and answers", *International Journal of Contemporary Hospitality Management*, Vol. 16 No. 1, pp. 59-64.

Grönroos, C. and Ojasalo, K. (2004), "Service productivity: towards a conceptualization of the transformation of inputs into economic results in services", *Journal of Business Research*, Vol. 57 No. 4, pp. 414-423.

Harris, P.J. and Mongiello, M. (2001), "Key performance indicators in european hotel properties: general managers' choices and company profiles", *International Journal of Contemporary Hospitality Management*, Vol. 13 No. 3, pp. 120-127.

Herrington, C., McPhail, R. and Guilding, C. (2013), "The evolving nature of hotel HR performance measurement systems and challenges arising: an exploratory study", *Journal of Hospitality and Tourism Management*, Vol. 20, pp. 68-75.

Hoque, Z. (2004), "A contingency model of the association between strategy, environmental uncertainty and performance measurement: impact on organizational performance", *International Business Review*, Vol. 13 No. 4, pp. 485-502.

Ja, A. and Lo, A. (2009), "Designing operative productivity measures in public services", *Vine*, Vol. 39 No. 1, pp. 55-67.

Jääskeläinen, A. and Laihonen, H. (2013), "Overcoming the specific performance measurement challenges of knowledge-intensive organizations", *International Journal of Productivity and Performance Management*, Vol. 62 No. 4, pp. 350-363.

Jácome, R., Lisboa, J.V. and Yasin, M.M. (2002), "Time-based differentiation – an old strategic hat or an effective strategic choice: an empirical investigation", *European Business Review*, Vol. 14 No. 3, pp. 184-193.

Jugdev, K., Mathur, G. and Fung, T.S. (2007), "Project management assets and their relationship with the project management capability of the firm", *International Journal of Project Management*, Vol. 25 No. 6, pp. 560-568.

Jusoh, R., Nasir Ibrahim, D. and Zainuddin, Y. (2008), "The performance consequence of multiple performance measures usage: evidence from the malaysian manufacturers", *International Journal of Productivity and Performance Management*, Vol. 57 No. 2, p. 1, 19-136.

Kaplan, R.S. and Norton, D.P. (1996), "Using the balanced scorecard as a strategic management system", *Harvard Business Review*, Vol. 74 No. 1, pp. 75-85.

Kaplan, R.S. and Norton, D.P. (2001), "Transforming the balanced scorecard from performance measurement to strategic management: part II", *Accounting Horizons*, Vol. 15 No. 2, pp. 147-160.

Kaplan, R.S. and Norton, D.P. (2007), "Using the balanced scorecard as a strategic management system", *Harvard Business Review*, Vol. 85 No. 7, pp. 150-161.

Kennerley, M. and Neely, A. (2003), "Measuring performance in a changing business environment", *International Journal of Operations & Production Management*, Vol. 23 No. 2, pp. 213-229.

Laihonen, H., Jääskeläinen, A. and Pekkola, S. (2014), "Measuring performance of a service system – from organizations to customer-perceived performance", *Measuring Business Excellence*, Vol. 18 No. 3, pp. 73-86.

Lettice, F., Roth, N. and Forstenlechner, I. (2006), "Measuring knowledge in the new product development process", *International Journal of Productivity and Performance Management*, Vol. 55 Nos 3/4, pp. 217-241.

- Lipe, M.G. and Salterio, S.E. (2000), "The balanced scorecard: judgmental effects of common and unique performance measures", *The Accounting Review*, Vol. 75 No. 3, pp. 283-298.
- Lonnqvist, A. and Sillanpää, V. (2011), "Performance measurement in welfare services: a survey of Finnish organisations", *Measuring Business Excellence*, Vol. 15 No. 4, pp. 62-70.
- Lynch-Cerullo, K. and Cooney, K. (2011), "Moving from outputs to outcomes: a review of the evolution of performance measurement in the human service nonprofit sector", *Administration in Social Work*, Vol. 35 No. 4, pp. 364-388.
- Masum, A.K.M., Azad, M.A.K. and Beh, L.S. (2015), "The role of human resource management practices in bank performance", *Total Quality Management & Business Excellence*, Vol. 27 Nos 3/4, pp. 382-397.
- Melnyk, S.A., Bititci, U., Platts, K., Tobias, J. and Andersen, B. (2014), "Is performance measurement and management fit for the future?", *Management Accounting Research*, Vol. 25 No. 2, pp. 173-186.
- Metts, G.A. (2007), "Measuring the effectiveness of managerial action in SMEs: an empirical analysis of management's response to industry competitive forces", *Management Research News*, Vol. 30 No. 12, pp. 892-914.
- Micheli, P. and Kennerley, M. (2005), "Performance measurement frameworks in public and non-profit sectors", *Production Planning & Control*, Vol. 16 No. 2, pp. 125-134.
- Mitchell, R.K., Agle, B.R. and Wood, D.J. (1997), "Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts", *The Academy of Management Review*, Vol. 22 No. 4, pp. 853-886.
- Moxham, C. (2009), "Performance measurement: examining the applicability of the existing body of knowledge to nonprofit organisations", *International Journal of Operations & Production Management*, Vol. 29 No. 7, pp. 740-763.
- Mulvaney, R.R.H., Zwahr, M. and Baranowski, L. (2006), "The trend toward accountability: what does it mean for HR managers?", *Human Resource Management Review*, Vol. 16 No. 3, pp. 431-442.
- Neely, A., Gregory, M. and Platts, K. (1995), "Performance measurement system design: a literature review and research agenda", *International Journal of Operations and Production Management*, Vol. 15 No. 4, pp. 80-116.
- Speziale, M.T. and Klovienè, L. (2014), "The relationship between performance measurement and sustainability reporting: a literature review", *Procedia-Social and Behavioral Sciences*, Vol. 156, pp. 633-638.
- Taticchi, P., Balachandran, K. and Tonelli, F. (2012), "Performance measurement and management systems: state of the art, guidelines for design and challenges", *Measuring Business Excellence*, Vol. 16 No. 2, pp. 41-54.
- Tung, A., Baird, K. and Schoch, H.P. (2011), "Factors influencing the effectiveness of performance measurement systems", *International Journal of Operations & Production Management*, Vol. 31 No. 12, pp. 1287-1310.
- Ukko, J., Tenhunen, J. and Rantanen, H. (2007), "Performance measurement impacts on management and leadership: perspectives of management and employees", *International Journal of Production Economics*, Vol. 110 Nos 1/2, pp. 39-51.
- Valsamakis, V.P. and Sprague, L.G. (2001), "The role of customer relationships in the growth of small- to medium-sized manufacturers", *International Journal of Operations & Production Management*, Vol. 21 No. 4, pp. 427-445.
- Wang, W.C. (2012), "A study of HR consulting firms' performance measurement indicators by using balanced scorecard-analysis of fuzzy AHP", *Journal of Accounting, Finance & Management Strategy*, Vol. 7 No. 2, pp. 93-114.

### Corresponding author

Carlos F. Gomes can be contacted at: [cfgomes@fe.uc.pt](mailto:cfgomes@fe.uc.pt)

---

For instructions on how to order reprints of this article, please visit our website:

[www.emeraldgroupublishing.com/licensing/reprints.htm](http://www.emeraldgroupublishing.com/licensing/reprints.htm)

Or contact us for further details: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)