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# NONFINANCIAL PERFORMANCE MEASURES

Abstract

Nonfinancial performance measures have attracted significant attention in the managerial accounting literature. The purpose of this essay is to distinguish some of the reasons for growing attention for nonfinancial metrics in the literature and to identify the major characteristics of the nature of nonfinancial performance measures and their implementation. The paper provides brief overview of the literature of performance measures and the emergence of interests for nonfinancial metrics. The paper further identifies the key aspects of nonfinancial performance measures and their implementation, and provides evidence in literature of their practical use in industries. Furthermore, the paper itself presents some of the main benefits and drawbacks in implementing nonfinancial measures for evaluating organizational performance. Finally, the paper provides brief discussion on the possibility and the advantages of combining financial and nonfinancial performance measures in strategic decision-making.

**Keywords:** performance measures, financial measures, nonfinancial measures

## INTRODUCTION

The following work is an overview of the recent academic literature on the issue of nonfinancial performance measures. The fast pace of changes in global business environments dictate the need to be flexible and critical when assessing efficiency and effectiveness of organizations in order to sustain competitiveness. Managers are pressured to develop meaningful and comprehensive metrics of performance in order to justify business strategies and attract future investments. Therefore, the purpose of this work is to provide an outlook on the emergence of relatively new performance measures based on non-financial parameters. This paper begins by summarizing the major topics in literature on the issue of performance measures. The emergence of nonfinancial performance measures in literature is further discussed. Next sections present the key characteristics of nonfinancial performance measures and discuss their implementation with references to the practical examples. Furthermore, possible benefits and drawbacks of nonfinancial measures are reviewed. Finally, a discussion on the combination of financial and nonfinancial performance measures is introduced as an alternative strategy of business evaluation.

## OVERVIEW OF PERFORMANCE MEASURES LITERATURE

Literature on performance measures is abundant and provides discussions concerning various aspects of evaluation of business execution. The work by Gunasekaran et al (2015) offered rich description on the nature of performance measures, the foundations of metrics, as well as modern criteria for the performance measures in new business environment. According to Chow & Van Der Stede (2006, p. 1), measures on performance play important roles in organizational management:

> "These include translating strategy into desired behaviors and results, communicating these expectations, monitoring progress, providing feedback, and motivating employees through performance-based rewards and sanctions."

Gunasekaran et al (2005) provided insights into requirements of measuring the effectiveness of operations in new enterprises, with a focus on accounting-based and contemporary metrics. Giachetti et al (2003) offered a complex overview of the measurement bases of flexibility and agility metrics of company performance. The work created by Goknur and Turan (2010) discussed the components of performance measures, while Alan et al (2017) highlighted emerging trends in the implementation of performance measures from the perspective of process management in the supply-chain systems. These works indicated the most relevant issues in the tactics for measuring organizational performance and potential use of alternative measures to the accounting-based metrics.

## EMERGENCE OF NONFINANCIAL PERFORMANCE MEASURES

### *1. Attention towards Alternative Performance Measures*

According to O'Connell and O'Sullivan (2016), accounting-based calculations on the returns-on-investment, unit costs, earnings etc. have been traditionally used to assess the level of business performance at any given period of operations. However, modern business environment demands competitiveness through flexibility, customization, quality management (i.e. TQM), and timeliness (i.e. JIT) that can no longer be assessed only through conventional financial measures but require alternative and more qualitative approaches (Chow & Van der Stede, 2006). Dikolli & Sedatole (2007) noticed that a growing amount of research is dedicated to explore the possibilities of nonfinancial measures, to evaluate performance, and to present these measures as future financial performance indicators. Said et al (2003) stated that growing attention towards nonfinancial measures emerged from the desire to overcome the limited applicability of purely financial metrics and their short-term predictions, and to offer more detailed and substantial description of organizational operations. According to Said et al (2003), nonfinancial performance measures became more deeply investigated under the promise that they could contribute to quality-oriented management and improve assessment of competitiveness in the marketplace.

### *2. Nonfinancial Metrics in Management Compensation*

The article by HassabElnaby et al (2007) noted that there is a substantial volume of literature dedicated to the use of nonfinancial performance measures for evaluations of reward levels for management. Kelly (2007), Said et al (2003) and HassabElnaby et al (2007) observed that literature on expectancy and agency theories has contributed to increased attention towards performance measures, as ways to motivate managers to maintain and improve performance in order to receive appealing compensation packages. According to O'Connell and O'Sullivan (2016), nonfinancial measures such as customer and employee satisfaction, product/service quality, productivity and market share have been increasingly combined with financial results in order to determine management compensation based on the delivered business performance. Therefore, managerial motives for better rewards and appraisals have also contributed to the increased interest for nonfinancial performance measures in the literature. Examples of articles discussing the implementation of nonfinancial performance measures in compensations include O'Connell and O'Sullivan (2016), Gibbs (2008), HassabElnaby et al (2007), Kelly (2007), Lau & Moser (2008), Sliwka (2002) etc.

### *3. Nonfinancial Performance Measures in Accounting Teachings*

The article by Buttross & Schmelzle (2008) examined the emergence and importance of nonfinancial measures concept in the managerial accounting study programs. Authors discovered that nonfinancial performance measures were introduced to study programs as innovative topics and their knowledge was considered important and relevant to managers and accountants, wishing to be well-informed of the trends in the competitive business environment. Buttross & Schmelzle (2008) noted that there is a need for greater attention to the teachings on nonfinancial performance measures and more reference in the professional and academic literature in order to keep up with the pace of developments in the performance evaluations in real-life industries. Similarly, Gibbs (2008) pointed that there is a growing literature on nonfinancial measures, and its promotion is important in order to be in line with the contemporary managerial job requirements and to meet conditions by performance-based work appraisals and compensations.

## KEY ASPECTS OF NONFINANCIAL PERFORMANCE MEASURES

As stated in Savsar (2015), the emergence of nonfinancial performance measures is linked to the "Balanced Scorecard" evaluation system, which introduced examination of descriptive variables to organizational performance evaluation, not obtainable from the traditional financial reports. Johnson et al (2009) explained that the key value of nonfinancial measures to performance assessment is the assumption that they stimulate and describe performance through cause-and-effect principle. For instance, typical nonfinancial measures, such as customer satisfaction, can be assumed to stimulate positively customer loyalty, which in turn increases repetitive purchases, decreases transaction and market costs, and influences positively the final financial outcomes (Johnson et al, 2009). In similar way, other typical nonfinancial performance measures such as product quality, customer responsiveness, delivery timelines, employee satisfaction, productivity etc are believed to contribute positively to the financial performance of organizations (O'Connell and O'Sullivan 2016, Said et al, 2003; Campbell, 2007, Ittner & Larcker, 2003). Furthermore, an article by Sliwka (2002) suggested that such nonfinancial measures are considered to display the effectiveness and efficiency of business strategies, especially strategies directed towards innovation and market growth. According to Frigo (2002; p. 6):

> "They are at the heart of describing strategy and of developing a unique set of performance measures that communicate strategy clearly, and they help in its execution."

According to O'Connell and O'Sullivan (2016) although the nonfinancial performance measures are often described to play only a supporting role to the financial measures of business performance, they provide deeper understanding of the drives of effectiveness and efficiency along organizational processes and operations.

The work by Said et al (2003) suggested that besides playing important role in the "Balanced Scorecard" performance evaluation system, nonfinancial measures are also associated with the Total Quality Management (TQM) practice. According to Said et al (2003), TQM is often implemented as nonfinancial framework of performance assessment and leads to positive performance evaluations, greater flexibility, and positive stock market position. Moreover, Frigo (2002) revealed that because of this various nonfinancial performance measures being employed by organizations, it is possible to create the evaluation of the future investment opportunities.

## IMPLEMENTATION OF NONFINANCIAL MEASURES

The article by Ittner & Larcker (2003) provided a set of guidelines for successful implementation of nonfinancial measures in performance evaluation. Authors suggested that causal model, which explains the relationship between organization's strategic plans and critical performance areas, is the first step to nonfinancial measures implementation, which insures that evaluations will be meaningful and relevant to the objectives of the organization. Furthermore, authors stated that it is necessary to collect and analyze data reflecting company's progress towards strategic goals from information systems and qualitative and quantitative corporate reports and even conduct new internal research, in order to have detailed picture of the causality in the organization and action-effect overview of initiatives. Moreover, Ittner & Larcker (2003) argued that continual revision of the causal relationships and their modification should be performed in order to reflect the changes in the competitive environment (some nonfinancial indicators of performance become obsolete and new ones emerge and need to be included in the evaluation). Authors also stressed that in order for the nonfinancial performance measures to have positive effects on future financial performance, these nonfinancial results should be used as bases in decision-making and be acted upon. Ittner & Larcker (2003) stated that once insights from nonfinancial evaluations are implemented in the strategy, their effectiveness to produce favorable financial results should be also measured in order to prove the accuracy of selected metrics and relevance of measured operational areas to performance. Finally, authors noted that environmental forces surrounding organizations should be considered when implementing nonfinancial-based performance evaluation in order to avoid misleading conclusions (Ittner & Larcker, 2003, p. 93):

> "Since the performance consequences of nonfinancial measures may be contingent on exogenous variables, the ability to draw inferences about the performance consequences of using those measures might be affected by specification errors."

Additionally, HassabElnaby et al (2007) suggested that is important to adjust nonfinancial performance measures to the characteristics of the organizations, so that they will be relevant to the operations and processes and corresponding to the interests of the organization towards areas of improvement. Said et al (2003) further stated that selection and implementation of nonfinancial measures should correspond to the organizational strategy, while Rodgers (2011) and Fleming et al (2011) agreed with this requirement and provided examples of nonfinancial performance measure implementation in healthcare. Similarly, Medrado and Jackson (2016) provided example of the implementation in the hotel industry and Campbell (2007) referred to the example in the case of fast-food restaurant.

## BENEFITS & DRAWBACKS OF IMPLEMENTING NONFINANCIAL PERFORMANCE MEASURES

According to Said et al (2003), nonfinancial measures have the benefit to organizational performance by motivating managers to improve their actions and initiatives along the specific operations and processes assessed by these measures, which produce great impact on the organization as whole. Said et al (2003) also suggested that evaluation systems which include nonfinancial performance measures make strategic objectives more comprehensive to managers and allow them to see how the processes, employees, resources, and objectives are inter-related, which makes improvements in performance easier to spot and implement. Additionally, some of the nonfinancial aspects of organizational performance can be assessed at any time during operations, which allows managers to use nonfinancial performance measures to take corrective actions on time when needed and direct them to the precise sources of performance problems (Kelly, 2007). According to Ittner & Larcker (2003), this also allows managers to have a general idea of the organizational progress before the financial results are available and so avoid waste of resources invested in inappropriate performance areas. They also stated that nonfinancial performance measures provide the benefit of allowing employees to understand better the overall organizational performance and participate more in the efforts towards accomplishing strategic objectives. Said et al (2003) added that because of this instant effect, nonfinancial performance measures have the advantage of being less vulnerable by manipulations, which are more possible in financial reports. Furthermore, Ittner & Larcker (2003) suggested that nonfinancial performance measure such as customer satisfaction can be a good reference to the company's current market value. However, authors noted that this qualitative measure cannot be related to the indicators of company's financial performance results. Finally, Kelly (2007) suggested that organizations which have greater portion of investments in intangible assets (such as branding, R&D, human capital etc) can derive greater benefits from implementing nonfinancial measures to evaluate performance, as they can be more easily linked with these intangible assets and improve decision-making.

Although nonfinancial performance measures display numerous benefits, they also possess several drawbacks. According to Kelly (2007), nonfinancial performance measures are considered to have lower power to improving organizational performance unless they are paired with other managerial incentives that would motivate managers to base their decision-making on them. Since managers are more likely to direct performance efforts to the nonfinancial areas directly linked to their compensation, this can cause biased evaluation in areas of interest and negligence in other fields of operations (Kelly, 2007). Furthermore, Dikolli & Sedatole (2007) argued that some nonfinancial measures such as customer satisfaction are difficult to define and require too complex schemes of metrics which often result in confusion and sometimes to not carry any substantial value for the firm. Thus, Dikolli & Sedatole (2007) argue that nonfinancial performance measures alone should not be considered as bases for strategic decision-making regarding investments and performance improvements. Finally, Ittner & Larcker (2003) warned that nonfinancial measures may provide reports that overestimate organization's progress, and therefore might misguide future operation strategies and produce more harm to performance than evaluation based only on accounting measures.

## POSSIBLE COMBINATION OF FINANCIAL AND NONFINANCIAL PERFORMANCE MEASURES

The Work by Baiman & Baldenus (2009) focused on review of the possibilities for combining financial and nonfinancial measures in evaluating organizational performance. According to them, the implementation of nonfinancial performance measures makes sense only if it can be tied to the financial performance indicators in the relevant operational areas. O'Connell and O'Sullivan (2016), supported this view and suggested that nonfinancial measures are complementary to the financial data, and reveal performance explanations not available in accounting calculations. Furthermore, O'Connell and O'Sullivan (2016), stated that once nonfinancial measures are added to the traditional metrics, both financial and nonfinancial performances of the organizations are improved. Chow & Van der Stede (2006, p. 7) added:

> "This inference is supported by our finding that the different measure types are seen as having different strengths and weaknesses (e.g. encouraging risk taking vs. supporting decision making). While some types can be used occasionally as substitutes for others, it may be best to look at the different types of measures as complements to each other."

Kelly (2007) explained that while intangible factors such as customer satisfaction, innovation, and quality-orientation form organizational values and reflect its achievements, accounting-based performance assessment cannot report on them on its own. Therefore, it requires combination with the nonfinancial parameters in order to monitor performance and produce advice for improvements with the long-term strategic view. Finally, research by Said et al (2003) stated that higher market returns were reported by companies which incorporated use of both financial and nonfinancial performance measures to evaluate their progress and make decision for future improvements and investments.

## CONCLUSION

Nonfinancial performance measures emerged as alternative indicators of performance due to changing requirements in competition, increased focus on quality, and greater use of performance-based compensations and incentives. Key aspect of nonfinancial measures is the assumption that they are based on causality models of processes and operations in organizations and can report on progress in the specific segments of business, including intangible ones. Implementation of nonfinancial measures requires strategic focus and clear vision of the causality of performance effects in the organization. Benefits of these measures include better and timely understanding of drivers of performance (especially its intangible factors) and guidance for specific performance improvements. However, nonfinancial measures should be used with caution since they may overestimate the overall level of organizational effectiveness. Therefore, literature strongly supports the idea of combining accounting and non-financial performance measures to have the optimum understanding on the performance drivers in organizations and greater support in strategic decision-making.

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