Advances in Accounting, incorporating Advances in International Accounting 27 (2011) 286–293

Contents lists available at ScienceDirect

Advances in Accounting, incorporating Advances in International Accounting

journal homepage: www.elsevier.com/locate/adiac

Nonfinancial and financial performance measures: How do they affect employee role clarity and performance?

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ARTICLE INFO

Keywords:
Nonfinancial measures
Financial measures
Role clarity
Performance

ABSTRACT

Two recent studies have found that comprehensive performance measurement systems comprising both financial and nonfinancial measures (e.g., balanced scorecard) are positively related to managerial performance through role clarity. It is, however, unclear if these results are from the use of financial measures or from the use of nonfinancial measures. It is also unclear if these effects are achievable by using nonfinancial measures alone. This study provides insights into prior studies' findings by distinguishing those effects arising from nonfinancial measures from those arising from financial measures. Based on a sample of 121 managers, the results indicate that nonfinancial measures, by themselves, significantly influence managerial performance through role clarity. More importantly, they also indicate that the effect of nonfinancial measures on role clarity is substantially stronger than that through financial measures.

1. Introduction

This study investigates the roles and relative importance of nonfinancial measures vis-à-vis financial measures in influencing managerial (employee) performance through employee role clarity. Recent research in multidimensional performance evaluation systems (e.g., balanced scorecard) has extended its focus on *organizational* level outcomes to *individual* employee outcomes. Researchers are increasingly concerned with not only how such performance measurement systems affect organizational performance, but also on how they influence individual employee performance. Burney and Widener (2007) argue that the lack of systematic empirical evidence on the relationships between performance measurement systems and *individual* behaviors constitutes a black box and an important gap in the literature that needs research attention.

Researchers have suggested that the effects of performance measurement systems on managerial performance are likely to be indirect through intervening variables. One of the variables identified as having such important intervening effects is employee role clarity (ambiguity). Two recent studies provide empirical evidence in support of this proposition. Burney and Widener (2007) found that strategic performance measurement systems are significantly related to role clarity (ambiguity) and that role clarity is an important intervening variable in the relationship between strategic performance measurement systems and managerial performance. Hall (2008) similarly found that comprehensive performance measurement systems are significantly related to both process and goal clarity which are subdimensions of role clarity. He also found that they fully mediate the relationship between comprehensive performance measurement systems and managerial performance.

There is therefore empirical evidence to suggest that the effect of performance measurement systems on managerial performance is indirect through role clarity. However, the abovementioned two studies have both examined performance measurement systems comprising a combination of financial and nonfinancial measures. Both studies did not isolate and compare the results arising from financial measures with those arising from nonfinancial measures. This leaves some unanswered questions. First, since comprehensive performance measurement systems are likely to comprise both nonfinancial measures and financial measures, are the effects found by the aforementioned two studies derived from using nonfinancial measures or are they from financial measures? Would the use of nonfinancial measures, by themselves, produce the same effects? Would the use of financial measures, by themselves, generate the same results? More importantly, what is the relative importance of nonfinancial measures vis-à-vis financial measures in these relationships? In other words, are the results of Burney and Widener (2007) and Hall (2008) driven mainly by nonfinancial measures or mainly by financial measures?

Our study contributes to the literature by addressing these unresolved issues. Fig. 1 depicts the model used in our study. It indicates that role clarity is affected by two separate constructs, nonfinancial measures and financial measures. Role clarity, in turn, is related to managerial performance. This model extends prior studies by isolating the effects of nonfinancial measures on role clarity and

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0882-6110/$ – see front matter
doi:10.1016/j.adiac.2011.07.001

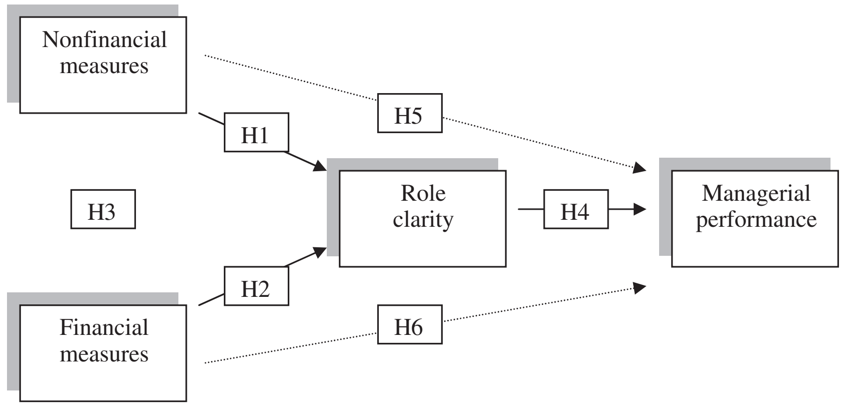

Fig. 1. Relationship between performance measures and performance.

managerial performance from those arising from financial measures. This will allow us to ascertain if the effects of comprehensive performance on managerial performance are derived from nonfinancial measures alone, financial measures alone, or from both nonfinancial and financial measures, as well as the relative importance of each category of measures.

The study of the isolated effects of nonfinancial measures, by themselves, is important for several reasons. First, three of the four perspectives in balanced scorecard are nonfinancial. Nonfinancial measures are therefore a dominant feature of multidimensional performance measurement systems. Second, while the use of a combination of financial measures and nonfinancial measures may be appropriate to evaluate organizational performance, the use of such a comprehensive system to evaluate individual manager's performance is questionable. Meyer (2002) suggests that while financial measures (e.g., return on equity, profits) may be relevant to managers at strategic business unit level, they are inappropriate for the evaluation of managers at below business unit level because at such levels, operations and performance are generally unique and specialized and hence employee performance evaluations require nonfinancial measures that are customized to the unique situations. Abdel-Maksoud, Dugdale, and Luther (2005) found that at shop-floor level, much of the performance measurement is nonfinancial. Their results led them to develop a "shop-floor scorecard" comprising only nonfinancial measures. Consequently, for some organizations and in some situations, an understanding of the isolated effects of nonfinancial measures and the isolated effected of financial measures may be more relevant than the combined effects of nonfinancial and financial measures. Hence, a study of the effects of nonfinancial measures on employee outcomes is therefore not only important in the understanding of multidimensional performance measurement systems, but is also important in its own rights.

An understanding of such issues may also assist organizations to expend the appropriate amount of attention to the performance measures commensurate with their importance in influencing employee performance. The development of an appropriate performance evaluation system in general, and the selection of the correct performance measures in particular, are a difficult, time consuming and costly exercise. More importantly, performance evaluations are important to employees because such evaluations are generally tied to their remuneration and promotions. Hence, the development and selection of inappropriate performance evaluation measures and procedures may lead to serious adverse employee reactions which are detrimental to organizational interest. Top management should therefore ensure that its employee performance evaluation systems are sound. The evidence uncovered in our study may provide some guidance particularly with regard to the use of nonfinancial measures. It would assist them to decide whether the adoption of nonfinancial measures as performance evaluation criteria is worthwhile or indeed even necessary.

The remainder of the paper is structured as follows. The following section provides the relevant theoretical justification for the hypotheses. This is followed by a discussion of the method used. The next section presents the results of the statistical analysis. The final section includes a discussion of the findings and the conclusions of the study.

2. Hypothesis development

2.1. Degree of importance attached to performance measures (see H1 and H2 in Fig. 1)

Performance measures may influence role clarity through two distinct processes. The first process is dependent on the *degree of importance* senior managers (superiors) rely on performance measures (regardless of whether the measures are financial or nonfinancial) to evaluate subordinate manager's performance. The second process is dependent on the type of measures, namely, *whether the measures are financial or nonfinancial*. This section deals only with the first process, namely, the *degree of importance* senior managers (superiors) rely on performance measures (regardless of whether the measures are financial or nonfinancial) to evaluate subordinate manager's performance.

Performance measures clarify the performance evaluation process and let employees know how they will be evaluated. Although their primary function is to measure performance, measures are also a means by which organizations can communicate their objectives, plans and strategies to employees (Kaplan & Norton, 1996). Through performance measures, employees will be aware of what their roles and responsibilities are and what their superiors expect from them. They will know what to aim for, which plans and what task strategies to adopt, and above all, where they should direct their attention, time and effort. Rizzo, House, and Lirtzman (1970) state that role ambiguity (the opposite of role clarity) is determined by a lack of "existence or clarity of behavioral requirements, often in terms of inputs from the environment which would serve to guide behavior, and provide knowledge that the behavior is appropriate." Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964) similarly suggest that not knowing or understanding how individuals are evaluated and uncertainty about the ways superiors evaluate subordinates' work performance, is a great source of role ambiguity (lack of clarity) for subordinates. Hence, if subordinates are aware of which performance measures their superiors attach importance to, their role clarity will be enhanced.

Table 1 summarizes the effects of the degree of importance superiors attach to performance measures on role clarity. For Hypothesis H1, involving *nonfinancial* measures only (cells C1 and