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The effect of comprehensive performance measurement systems on role clarity, psychological empowerment and managerial performance

Matthew Hall *

Department of Accounting and Finance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, United Kingdom

Abstract

This study examines how comprehensive performance measurement systems (PMS) affect managerial performance. It is proposed that the effect of comprehensive PMS on managerial performance is indirect through the mediating variables of role clarity and psychological empowerment. Data collected from a survey of 83 strategic business unit managers are used to test the model. Results from a structural model tested using Partial Least Squares regression indicate that comprehensive PMS is indirectly related to managerial performance through the intervening variables of role clarity and psychological empowerment. This result highlights the role of cognitive and motivational mechanisms in explaining the effect of management accounting systems on managerial performance. In particular, the results indicate that comprehensive PMS influences managers' cognition and motivation, which, in turn, influence managerial performance.

Introduction

In recent years organizations have sought to develop more comprehensive performance measurement systems (PMS) to provide managers and employees with information to assist in managing their firm's operations (Fullerton & McWatters, 2002; Ittner, Larcker, & Randall, 2003; Lillis, 2002; Malina & Selto, 2001; Ullrich & Tuttle, 2004). Prior research indicates that more comprehensive PMS include a more diverse set of performance measures, and performance measures that are linked to the strategy of the firm and provide information about parts of the value chain (Chenhall, 2005; Malina & Selto, 2001; Nanni, Dixon, &

* Tel.: +44 0 20 7955 7736; fax: +44 0 20 7955 7420.
E-mail address: M.R.Hall@lse.ac.uk

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Vollman, 1992; Neely, Gregory, & Platts, 1995). Comprehensive PMS have been popularised in techniques such as the balanced scorecard (Kaplan & Norton, 1996), tableau de bord (Epstein & Manzoni, 1998) and performance hierarchies (Lynch & Cross, 1992).

In this paper I examine how comprehensive PMS affect managerial performance. Prior research has focused on the relation between comprehensive PMS and organisational performance (perceived or actual) (Chenhall, 2005; Davis & Albright, 2004; Hoque & James, 2000; Ittner, Larcker, & Randall, 2003; Said, HassabElnaby, & Wier, 2003), and on the use of multiple performance measures in performance evaluation judgements (Banker, Chang, & Pizzini, 2004; Lipe & Salterio, 2000; Schiff & Hoffman, 1996). However, there is limited empirical research that examines the behavioural consequences of comprehensive PMS (Ittner & Larcker, 1998; Webb, 2004). Studies examining links between management control systems and organisational outcomes assume that such systems affect the behaviour of individuals within the organization, which then facilitates the achievement of organisational goals. However, as Chenhall (2003) notes, this assumption involves broad leaps in logic and there is no compelling evidence to suggest that these links exist. Similarly, Covaleski, Evans, Luft, and Shields (2003) argue that studies at the organisational level of analysis remain somewhat limited because they are based upon assumptions about, rather than a detailed investigation of, individual behaviour.

Further, there is little empirical research that examines whether control system components have direct and/or indirect effects on work performance (Shields, Deng, & Kato, 2000). This is important because there can be theoretical differences between direct- and indirect-effects models that can have practical implications (Shields et al., 2000). Psychological theories indicate that cognitive and motivational mechanisms are likely to explain the relation between comprehensive PMS and managerial performance (Collins, 1982; Ilgen, Fisher, & Taylor, 1979; Luckett & Eggleton, 1991). As such, I examine how the relation between comprehensive PMS and managerial performance can be explained by the intervening variables of role clarity and psychological empowerment.

Recent research indicates that the information dimensions of management accounting practices, such as PMS, are not captured effectively by labels such as the balanced scorecard (Chenhall, 2005; Ittner, Larcker, & Randall, 2003). In particular, Ittner, Larcker, and Randall (2003) argue that researchers need to devise improved methods for determining what firms mean by contemporary PMS. As such, in this study, I draw on descriptions of PMS from the performance measurement literature to develop a definition of a comprehensive PMS. Based on this definition, I develop an instrument to measure empirically the comprehensive PMS construct.

Data collected from a survey of strategic business unit (SBU) managers are used to examine how comprehensive PMS is related to managerial performance. I focus on SBU managers as the information provided by comprehensive PMS is expected to be useful at this managerial level because of SBU managers' information requirements. The results show that comprehensive PMS is indirectly related to managerial performance through the intervening variables of role clarity and psychological empowerment. Consistent with theory, the results highlight the role of cognitive and motivational mechanisms in explaining the effect of management accounting systems on managerial performance. In particular, the results indicate that comprehensive PMS influences managers' cognition and motivation, which, in turn, influence managerial performance. This contributes to prior research that has examined the direct and indirect effects of management control systems on work performance (Shields et al., 2000), and also extends the limited body of prior research that has examined the effect of management control system attributes on psychological empowerment (Smith & Langfield-Smith, 2003; Spreitzer, 1995, 1996) and role clarity (Chenhall & Brownell, 1988). Finally, the study responds to calls to develop improved methods for examining the attributes of management accounting practices by developing a reliable and valid instrument to measure the comprehensive PMS construct.