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Management accounting systems change and departmental performance: the influence of managerial information and task uncertainty

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Despite the proliferation of new management accounting techniques amidst pressures of organizational and global change, the issue of changes in firm-wide management accounting and control systems (MACSs) has largely been ignored in the research literature. This study explores the indirect effect of MACSs change on departmental performance for a cross-sectional sample of 232 medium-sized Singaporean firms. It is hypothesized that MACSs change affects performance but not directly. Instead, this relationship is mediated by managerial-relevant information (MRI) that is impacted by MACSs change, which, in turn, enhances performance. Task uncertainty is expected to moderate the intervening linkages; specifically, the latter are anticipated to strengthen under conditions of more task variability and task difficulty and, thus, augment the indirect effect of MACSs change on performance. The results offer support for the positive indirect effect of improving departmental performance from more MRI, triggered by MACSs change. Although not large, the indirect effect is strengthened when task variability and task difficulty are high. Overall, the findings are consistent with the stated purposes of management accounting that are embedded in normative definitions, and which are relied upon to motivate the framework for analysis.

Key words: management accounting system change; information; decision making; operating performance; task uncertainty.

1. Introduction

The issue of accounting systems change has interested management accounting scholars for decades. Dynamic business environments, characterized by unrelenting technological and organizational change from heightened globalization and

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increasing competition, continue to perpetuate this focus. An expanding contemporary literature that features new planning systems, advanced costing techniques (Cooper and Kaplan, 1992), lateral control systems, balanced scorecard mechanisms (Kaplan, 1990, 1998), and performance management frameworks (Otley, 1999) is ample testimony to the changing landscape of management accounting systems in particular. In addition, escalating globalization has spurred renewed research interest in the cross-cultural design of accounting control systems (Chow *et al.*, 1999; Harrison and McKinnon, 1999), including proposed theories of convergent versus divergent accounting practices in industrialized nations (Granlund and Lukka, 1998).

Despite these prolific practice and research advances, most of our cumulative knowledge from them concerns the design merits and implementation issues associated with individual control system components (e.g. ABC) and new management accounting techniques or methods examined individually (e.g. see Otley, 1999). Atkinson *et al.* (1997, p. 87) contend that better knowledge about change in management accounting systems might be 'prerequisite to studying the process of change' for management accountants in general. From a macro organizational perspective, the literature on the possible forces influencing management accounting change is surprisingly silent. Recent comprehensive literature reviews on the current state of research in management accounting indicate no attention devoted to this issue (e.g. see Shields, 1997; Foster and Young, 1997). From a slightly altered perspective, and somewhat remarkable as well, research on whether this wave of new management accounting applications benefits organizations 'is strikingly absent from the literature' (Foster and Young, p. 73).

Lately, though, the pioneering work of Libby and Waterhouse (1996) along with the subsequent study by Williams and Seaman (2001) have generated evidence on the extent and determinants of management accounting and control systems (MACSs) change[1] at the organizational level. These studies utilize contingency theory to argue that MACSs change is dependent on a firm's context and structure, both of which serve to impel and retard change. However, embracing the challenging issue of whether organizations indeed benefit from changes in MACSs requires the latter to be conceptualized differently. Moreover, it necessitates a methodological shift that elevates MACSs change to the status of an independent variable rather than being a dependent variable as mentioned in the contingency framework above. The central purpose of this paper, therefore, is to develop a testable framework that addresses the relationship between MACSs change and performance at the departmental level, and then to examine it empirically.

As a starting point, this study draws on the conventional wisdom anchored in standard definitions of management accounting for guidance in building a defensible framework for analysis. In doing so, three fundamental elements appear to stand out: (1) a management accounting system is a multidimensional composite of planning and control subsystems; (2) it is intended to provide information for managerial decision making and evaluation; and (3) it is intended to enhance an organization's performance outcomes at the operating level. An important working assumption

[1] To avoid ambiguity and misunderstanding among terms, 'MACSs change' is used exclusively throughout the paper to refer to the independent variable. The phrase 'change in MACSs' or 'changes to MACSs' refers to the action or process of altering the components of an organization's management accounting system.