Relationships between Uncertainty, Strategy, Strategic Performance Measurement Systems and Organization Performance

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Abstract
Controllability principle is one of the most principles intended to guide the design of performance measurement systems (PMSs). The uncontrollable perceptions related to environment uncertainty and risk arisen by prospector-type strategy are different perceived by managers, which turns out these two factors different direct effects on the design of PMSs. There is considerable interest in the design of strategic performance measurement systems (SPMSs). This study examines how environmental uncertainty and strategic choice affect the design of SPMSs, and the intervening role of the SPMSs on the relationship between strategy, environmental uncertainty and organizational performance. This study is investigated both qualitatively and quantitatively using questionnaire and interviews with senior managers as well as the review of firm document to understand firms’ behaviour in the use of SPMSs and informal information. In this paper, the SPMS characteristics can be illustrated in terms of integrated performance measures and strategic and operational linkages. This study finds that the effects of environment uncertainty and prospector-type strategy on the use of SPMSs are opposite. Through semi-structured interviews with senior managers I explored that how the informal information is used to complement with formal SPMSs in firms to manage environment uncertainty. Prospectors will engage the use of SPMSs more frequently than firms with other strategies do. Another conclusion derived from the study is that strategic and operational linkages have direct effect on organizational performance through the use of integrated performance measures.

Keywords: Environmental uncertainty, Strategy, Strategic performance measurement system, Performance

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1. Introduction

Over the last twenty years, how managers develop performance measurement systems (PMSs) to aid implementing strategy in competitive environments has emerged as one of the most important control issues (Dent, 1990; Kaplan and Norton 1996; Otley, 2001). Within the new economy, considerable research claimed that PMSs should encompass financial measures, nonfinancial measures, and cause-effect linkages between strategy and performance measures to provide integrated information relating strategic goals to operations (Chenhall, 2005; Hoque, 2004; Ittner and Larcker, 2003; Jermias and Gani, 2004; Sim and Killough, 1998). Such PMSs are thus termed strategic performance measurement systems (SPMSs) (Chenhall, 2005; Webb, 2004).

More recently, evidences of the link between the use of SPMSs and organizational outcomes have emerged (Burney et al., 2009; Burney and Widener, 2009; Chenhall, 2005; Davis and Albright, 2004; Hall, 2008; Ittner et al., 2003). The empirical literature shows that firms employ SPMSs to deal effectively with their competitive environment. The contingency theory literature indicates that environment factors affect the design of control system (Anderson and Lanen, 1999; Chenhall, 2003; Fisher, 1995; Kennedy and Widener, 2008). With increasing competition in the global economic environment, it is worthwhile examining how the factors of competitive strategies and environmental uncertainty conditions influence the use of SPMSs to tackle competition. It is evident that firms would match the use of PMSs with the chosen strategy and the match is likely to enhance firm performance (Chenhall, 1997; Chong & Chong, 1997; Govindarajan & Gupta, 1985; Hoque, 2004; Ittner and Larker, 1995; Van der Stede et al., 2006). Recent global economic trends have highlighted the importance of the ability to adapt to rapidly changing economic environments and implement strategy (Baines and Langfield-Smith, 2003; Hayes, 2002; Sorensen, 2008), which has been the case especially since the financial crisis. Nevertheless, research showing how firms use SPMSs to adapt to environmental uncertainty and assist in strategic goals is limited. This study first examines how environmental uncertainty and choice of strategy affect the design of SPMSs, and the intervening role of SPMSs on the relationship between strategy, environmental uncertainty and organizational performance.

Empirical results are at best inconclusive about the relationship between