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Characteristics of Project Management Assets and Project Management Process Outcomes:
An Exploratory Factor Analysis

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ABSTRACT

The resource-based view of the firm from strategic management literature is applied to examine project management as a source of competitive advantage. In this view, assets contribute to competitive advantage if they add economic value, are rare, are difficult to imitate, and have organizational support. This research examines project management assets and project management process outcomes in a cross-industry study that attempts to replicate findings from a prior study, using the same survey tool with a larger sample. Exploratory factor analysis extracted four factors that comprised characteristics of project management assets that are valuable, rare, and inimitable, three factors that comprised of organizational support for project management assets, and two factors that comprised of project management process outcomes. The extracted factors mostly replicated the findings from the prior study; differences emerged in the factors that comprised of project management assets.

KEYWORDS

Competitive Advantage, Performance Outcomes, Project Management Assets, Project Management Resources, Project Management, Resource-Based View, Strategic Assets, Strategic Resources

INTRODUCTION

Increasingly, organizations are drawing on project management best practices to help them be more effective and efficient. Project management involves processes that encompass tools, techniques, and knowledge-based practices applied to projects, to achieve organizational goals and deliver products or services (Project Management Institute, 2013). The traditional emphasis in project management has been on tangible resources (e.g., tools and techniques, templates, software, and project management offices). More recently, a body of project management literature has drawn on theory from the strategic management field, anchored in the resource-based view of the firm (RBV) (Jugdev & Mathur, 2006; Jugdev, Mathur, & Fung, 2007; Mathur, Jugdev, & Fung, 2007, 2013, 2014). This literature moves the attention to include intangible project management resources (e.g., tacit knowledge, communities of practice, job shadowing, and mentoring). Specifically, shadowing in IT projects has also been studied

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with the RBV lens (Sohani, 2016). The importance of this expanded perspective is that intangible resources are more likely to be sources of competitive advantage, since they typically differentiate one firm from another (Barney, Ketchen, & Wright, 2011; Eisenhardt & Santos, 2000).

The RBV is a theoretical perspective that considers sustainable competitive advantage to be based on an organization's resources (Barney, 2000). Organizational resources are viewed as bundles of tangible or intangible assets (or resources). Tangible assets include physical capital resources, such as plant, equipment, and finances, whereas intangible assets include human, organizational, and knowledge-based resources (Conner & Prahalad, 1996; Eisenhardt & Santos, 2000). Grant's typology further differentiates between human and intangible resources (1991). An organization that understands its resource mix, including its strengths and weaknesses, is well positioned to decide which resources to leverage for competitive advantage. Assets that are valuable, rare, difficult to imitate, and supported by an organization are classified as strategic assets, and are viewed as sources of sustainable competitive advantage (Barney, 1991, 2011; Barney & Wright, 1998). The RBV has been applied in empirical studies, contributing extensively to various fields, such as human resource management, economics, finance, entrepreneurship, marketing, and international business (Barney, Wright, & Ketchen, 2001). More recently, the RBV has been applied to additional fields (Barney et al., 2011), including operations management (Barratt & Oke, 2007; Ethiraj, Kale, Krishnan, & Singh, 2005; Paiva, Roth, & Fensterseifer, 2008; Peng, Schroeder, & Shah, 2007), information technology (Bharadwaj, 2000; Seddon, 2014), and most recently, project management (Jugdev & Mathur, 2006; Jugdev et al., 2007; Mathur et al., 2007, 2013, 2014).

Of interest in this study on project management assets and project management performance outcomes, is the developing body of theoretical and empirical work based on the RBV that presents superior project management capability as comprising of strategic assets – assets that are valuable, rare, difficult to imitate, and organizationally supported to realize competitive advantage. This study builds on the contributions by Jugdev and Mathur (2006) and Mathur et al. (2007, 2013, 2014), with a survey tool developed and used in their research. Their research examines the relationship between project management assets and project management performance outcomes using the RBV as a theoretical lens. This article presents the results of a replication of the work reported in Mathur et al. (2013), but uses data collected from a random, larger cross-industry sample of North American project management professionals (N = 437). The earlier study (Mathur et al., 2013) drew on a sample of 198 North American Project Management Institute (PMI) members. A majority of the 437 North American professionals (37%) included project team members, managers, and executives from the Information Technology (IT) sector. Of the 198 members from PMI, the majority (31%) was also from IT firms. A subset of project management professionals, project professionals from the IT sector typically work in complex environments, with high time pressures, in project-based organization, with an incentive to invest in project management capability.

While over a third of the professionals sampled were from the IT sector, and the literature search returned papers on IT capability that use the RBV of the firm, the researchers found that the examination of IT project management capability using the RBV was missing. The researchers disseminate the paper and its findings in an IT project management journal to generate further discussion and research that focuses on project management capability in IT projects.

In this paper the researchers present findings from an exploratory factor analysis of the data collected from responses to the online survey by the 437 project management professionals. Exploratory factor analysis is used to identify characteristics of project management assets that are considered strategic and to identify project management performance outcomes. The authors report on these extracted factors that are characteristics of project management assets and project management performance outcomes and compare the factors extracted with the results from the prior study (Mathur et al., 2013) of 198 members. In a subsequent paper, the researchers plan to develop a structural equation model based on the data and extracted factors reported in this study.

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