

Cross-Case Analysis of Top Management Characteristics and Enterprise Information System Success

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ABSTRACT

Although a large portion of the literature explains various supports by top management to enhance the overall success of the implementation of enterprise information systems, there remain some limitations in studies pertaining to how the characteristics of top management can have an influence on successful acquisition. The purpose of this paper is to investigate the effect of top management characteristics on the overall success of enterprise information systems. It aims to offer an in-depth understanding of the necessary characteristics through a cross-case analysis approach based on two contradictory government organizations in Saudi Arabia—one with successful implementation and the other with a failed enterprise resource planning system. The results expose various characteristics such as those related to business leadership and abilities and technological cognition and awareness. The results can be developed into a strategy to enhance awareness as well as top management participation.

KEYWORDS

Characteristics, Enterprise Information Systems, Enterprise Resource Planning, Government, Organizations, Support, Top Management

INTRODUCTION

Improving the successful implementation rate of enterprise information systems (EISs) and the required management practices are the key focal areas for organizations today. One main reason is the need to direct special consideration to more contingent and situated dimensions of EIS projects (Gasson, 2006). Studies such as those by Carlsson et al. (2011), Gregor and Jones (2007), and Khan et al. (2010), for example, have argued that the implementation of EISs should concern not only prescriptions for designing technological tools, methods, and applications but also understanding the organization's socio-technical system and accordingly designing methodologies and interventions.

McLeod and Doolin (2012) stressed the less clear-cut boundaries between the technological and social aspects throughout the implementation of EISs; therefore, the implementation process should be conceptualized as complex socio-technical (Orlikowski & Iacono, 2001). According to Mayère et al. (2008), identifying the various dimensions of the technical and social aspects of organizations and their impact on EIS implementation becomes a major and ongoing open problem. The underlying premise of the studies of socio-technical factors is concerned with better understanding the complex scenarios of the relationships among the social organization environment, the social enablers enacting business processes, and the system supporting such processes (McLeod & Doolin, 2012).

Although there appears to be categorical consensus that top management (TM) and strong commitment across the EIS project phases are indispensable to the achievement of success (e.g.,

Momoh, Roy, & Shehab, 2010; Somers & Nelson, 2004), that there is little empirical evidence to emphasize how the social groups or social enablers in an organization can be aligned with technical aspects for successful implementation. The question centers on the view that, although TM is consistently identified as the key social player in reaping the potential success of EISs and should not be a cause of disagreement between the researchers, nonetheless, there is a need to understand the top management characteristics (TMCs) that promote TM involvement as well as strong commitment to and support for successful implementation.

Existing literature on EIS project implementation tends to primarily focus on the different required supports by TM, leaving a gap in knowledge concerning the TMCs and their effects on successful EIS projects: for example, researchers should ask why there is strong participation, involvement, and commitment from TM during EIS project implementation in some organizations, whereas there are fewer supportive actions in other organizations. In so doing, there is a need to investigate TMCs that promote the involvement of TM and that allow for strong commitment to and support for the successful ERP system project. Two main questions have been formulated to achieve the aforementioned aim:

1. How can the TMCs facilitate the acquisition of the nature of such required supports during the implementation of EIS projects?
2. What are the TMCs that likely can promote the involvement and strong commitment, support, and interaction of TM during the implementation of EIS projects?

Two main reasons can justify the importance of understanding the TMCs in the promotion of strong commitment of supports. First, the predominant structure in many organizations is the traditional one employing a familiar power dynamic of organizational levels, including TM, middle management deputized to assist in running things, with others to follow. Within traditional organizations, TM has both control and mechanisms over decisions and project implementation. Decision controls are the constraints placed on implemented activities, whereas the mechanisms refer to the ways in which such activities are completed in an organization throughout the implementation phases (Whitman, Huff, & Presley, 1997). Second, there is no one-size-fits-all approach to managing EIS projects: each project might have its own implementation scenarios that differ in terms of needs; therefore, different TM supports may be applicable to each project. This means gaining an understanding that the necessary supports and dissimilar needs from TM might be less important than understanding the TMCs and their influence on the success of EIS projects in order to stimulate these characteristics for more involvement and stronger commitment.

This study attempts to address the aforementioned issue through the application of the cross-case analysis approach across two government organizations in the Kingdom of Saudi Arabia (KSA). The two government organizations have implemented EISs, namely enterprise resource planning (ERP). Although one organization failed to implement the ERP system, the other achieved potential success. The TM in this study refers to the general manager (GM) of the organization, as the literature defines TM as the person(s) with overall responsibility for the organization (Armstrong & Sambamurthy, 1999; Hambrick & Mason, 1984).

The remainder of the chapter is organized as follows. First, a literature review is presented explaining the EISs, the ERP systems, and the role of TM in information system projects. Then the chapter describes the research method adopted for this study. Next the chapter presents the data analysis, results, and discussion. The chapter concludes by providing some implications on theory and practice, recommendations, and a direction for future research.

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