Chapter 5.4

The Impact of Enterprise Systems on Business Value

Sanjay Mathrani
Massey University, New Zealand

Mohammad A. Rashid
Massey University, New Zealand

Dennis Viehland
Massey University, New Zealand

ABSTRACT

A significant investment in resources is required for implementation of integrated enterprise systems as technology solutions while the effectiveness of these systems to achieve business value remains unclear and empirically largely unexplored. Enterprise systems integrate and automate business processes, but unarguably, the real business value can only be achieved from improvements through the transformation of enterprise systems data into knowledge by applying analytic and decision making processes. This study explores a model of transforming ES data into knowledge and results by comparing two case studies that examine the impact of enterprise systems information on organizational functions and processes leading to realization of business value.

INTRODUCTION

The implementation of enterprise systems has been considered the most important development in corporate use of information technology (Davenport, 1995, 1998; Davenport & Prusak, 1998; Deloitte, 1998). Enterprise systems (ES) broadly include all enterprise-wide systems. These include enterprise resource planning (ERP) systems or any extended modules such as supply chain management (SCM) or customer relationship management (CRM) systems. However, despite a few dramatic successes, many organizations still fail to realize the benefits while incurring huge costs and schedule overruns (Dalal, Kamath, Kolarik, & Sivaraman, 2004). It has been estimated that half of all ES implementations fail to achieve the desired results (Jarra, Al-Mudimigh, & Zairi, 2000). In most cases enterprise systems are

implemented to improve organizational effectiveness (Davenport, 1998, 2000; Marcus & Tanis, 2000). These software applications connect and manage information flows across complex organizations, allowing managers to make decisions based on information that accurately reflects the current state of their business (Davenport, Harris, & Cantrell, 2002).

These systems are implemented to bring about definite business benefits that justify the investment. Truly significant return on investment (ROI) comes from the process improvements that ES supports and not just from improved information access. In most implementations, ES software alone makes marginal improvement in business performance. If organizations continue to follow the same pre-ES business processes after implementation, they can expect the same or possibly worse performance. ES software can, however, enable and support many new and improved processes, but not without the organization deciding what those processes are and committing to them. Positive ROI can come from changing the way business was performed in the past to more streamlined, faster and lower cost processes that better serve the needs of the customer and, if that is done well, the organization will be a winner (Donovan, 2003).

The focus of this chapter is to better understand the effectiveness of enterprise systems technology in an organizational setting. A qualitative research methodology is used to explore how firms can leverage ES technologies to realize improved business value. Field studies were conducted in two large manufacturing organizations in India that have implemented ESs, in order to understand their experience in achieving growth by leveraging data from their ES investment. Semi-structured interviews were conducted with senior managers of the two organizations between January 2005 and February 2006. The empirical data were integrated and analysed to formulate inferences presented in this paper. Both organizations had aggressive growth plans with an objective to achieve better

penetration capability into the competitive market by improving their operations. Both organizations had implemented ES for at least three years and so were in their mature phase of implementation. One organization had achieved considerable success from their ES implementation whereas the other had achieved little success. The two cases are compared to identify reasons for their levels of success.

BUSINESS BENEFITS

The justification for adopting ES centres on anticipated business benefits from the ES. To receive benefit from an ES, there must be no misunderstanding of what it is about, its usability, and, even more importantly, organizational decision makers must have the background and temperament for this type of decision making coupled with the right quality of information (Donovan, 1998). Many researchers have evaluated benefits from ES investments (Cooke & Peterson, 1998; Davenport et al., 2002; Deloitte, 1998; Donovan, 1998, 2001; Hedman & Borell, 2002; Ittner & Larcker, 2003; Shang & Seddon, 2000; Yang & Seddon, 2004). These studies have found that ES's are designed to help manage organizational resources in an integrated manner. Furthermore, the level of integration that is promoted across functions in an enterprise closely relates to the primary benefits that are expected as a result of their implementation. After adoption, improved business performance should produce both operational and strategic benefits (Irving, 1999; Jenson & Johnson, 2002; Nicolaou, 2004).

A study of 85 global companies (Deloitte, 1998) found tangible benefits (e.g. cost savings, faster processing) and intangible benefits (e.g., improved information visibility, new/improved processes, and improved customer responsiveness) from ES implementation. In a survey of 163 large firms (Davenport et al., 2002) key benefits realized by organizations adopting ES included

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