



Chapter XIV

Business Process Reengineering: The Role of Organizational Enablers and the Impact of Information Technology

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ABSTRACT

This study examines organizational factors that affect the implementation of business process reengineering (BPR) when applying two specific information technologies (i.e., Electronic Data Interchange and/or Internet technology). This research uses a survey methodology to gather information about how organizational enablers and information technology affect BPR implementation. By determining the factors that affect BPR implementation, these factors can be managed in the best interest of customers, employees, and organizations. From the nine hypotheses tested in this study, six factors were found to be positively associated with successful implementation of BPR. These factors are top management supports, change management, centralization of decision making, formalization of procedure,

organizational culture, and customer involvement. No significant relationship was found between employee resistance and integration of jobs with successful implementation of BPR. In this research, we found that the lack of resources is negatively associated with successful implementation of BPR. We also found that different information technologies such as those examined in this chapter—EDI and Internet—provide different capabilities and can be useful in different ways and for different purposes. The findings of this research can help practitioners to better understand the role of critical success and failure factors in BPR as well as the impact of different information technologies on BPR. By determining the factors that affect BPR implementation, these factors can be managed in the best interest of customers, employees, and organizations.

INTRODUCTION

The concept of BPR was first introduced by Hammer in 1990. Since initiation, it has become a popular management tool for dealing with rapid technological and business change in today's competitive environment. BPR evolved from the experiences of a few US-based companies in the late 1980s (Martinsons & Hempel, 1998). They radically changed their work process by applying modern information technology. Report of their dramatically improved performance helped to make reengineering the American management phenomenon of the early 1990s and its international diffusion.

Traditional organizations have different departments such as sales, marketing, finance, purchasing, production, and each department is responsible for undertaking one part of a large whole. This chain of linked departments allows for specialization where the overall task is broken down, and people with specific expertise can be applied as required. Such specialization of labor, whether on the manufacturing shop floor or within offices, has been a normal way of working for a long time. Levels of seniority evolve within these functions to form the organizational hierarchy. This model is so widely established that it is rarely questioned. That is all changing now. Business process reengineering is questioning this functional way of thinking and is making processes a main focus for organizations (Peppard & Rowland, 1995).

Figure 1 illustrates the shift from functional organization to process organization. Figure 1a depicts that the organization is actually made up of a number of suborganizations known as functions, each of which has its own management hierarchy. Figure 1b shows that management focus has traditionally been on the functional hierarchy. Figure 1c shows that BPR emphasizes a "process" view, which cuts across the functional hierarchies to reach the customer.

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