

Chapter 4.22

Process Re-Engineering Success in Small and Medium Sized Enterprises

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ABSTRACT

The factors that lead to business process re-engineering (BPR) success in small and medium-sized enterprises (SMEs) are not clearly understood. This article reviews the main contributing factors to BPR success using a framework that considers culture, structure, technology and resource. Eight Taiwanese case studies are used to explore issues contributing to, or impeding, successful process re-engineering in small firms. The analysis shows that BPR success is empowered by innovation, employee empowerment, top management commitment and strategic direction and is dependent upon customer relations, IS involvement and financial resources.

INTRODUCTION

Competition and globalization have led enterprises to restructure to focus on managing change. Business process re-engineering (BPR) is an approach to business transformation that emphasizes customer-driven, process-oriented management practice, often enabled by information technology (IT). Raymond et al (1998) state that the literature focuses on BPR in large firms and pose the question as to whether BPR success factors are the same for small and medium sized enterprises (SMEs) (firms with fewer than 250 employees SBS, [2003]) as for large enterprises.

This paper investigates BPR to identify the success and failure factors of BPR in small firms. The nature of BPR is briefly outlined. Chang and Powell's (1998) framework which explores

BPR in SMEs is adapted to focus in more detail on culture, technology, structure and resources. Using a case approach, the research explores the BPR response of eight Taiwanese firms. This leads to understanding of the different success and failure factors for BPR in SMEs. A revised model for successful BPR in SMEs is then presented and the implications for theory and practice are discussed.

NATURE OF BPR

BPR is 'radical redesign of business processes to achieve dramatic improvements on critical measures of performance' (Hammer, 1990). BPR emphasizes horizontal integration that crosses organizational boundaries - the analysis and design of work-flows and processes within and between organizations (Davenport, 1993). The main elements of BPR are fundamental work process redesign, adding value to final customers, integration of cross-functional specialization, and exploitation of IT. The challenges of BPR initiatives are both technical and socio-cultural. It is technically problematic to develop radical process improvements. The socio-cultural challenge is in dealing with people's reactions to the likely serious organizational changes required (Reijers & Mansar, 2005; Sarker et al., 2006).

Many factors are inherent in successful BPR. First, top management commitment is important to ensure the initiative is maintained and focused. Second, re-engineering focuses on providing customers with greater value (Cameron & Braiden, 2004). Third, re-engineering places a major emphasis on employees and their role in resolving problems (Larsen & Myers, 1999). Process improvement involves changes to jobs and the social structure to increase motivation, reduce stress and improve performance by empowerment (Wastell et al., 1994). Fourth, IT is an *enabler* in creating and maintaining flexible business networks (Tinnila, 1995). Finally, a BPR strategy is key,

incorporating critical inputs from both corporate and IT planning (Teng et al., 1994; Talwar, 1993). However, as BPR involves changing the firm's competences, it is more likely to be successful if it is emergent, benefiting from organizational learning (Craig & Yetton, 1997).

BPR in SMEs

One of the few BPR studies in SMEs indicates that firms benefit if they respect the underlying principles of BPR. In particular, SMEs need to review business processes around customer requirements using IT more innovatively. Top management commitment and a methodological approach are essential (Ursic et al., 2005). Involvement from employees is also beneficial (Raymond et al., 1998). These principles are evident in Chang and Powell's (1998) SME BPR framework (Figure 1). This framework identifies four key criteria that affect SME BPR success: culture, structure, resources and technology.

Culture: BPR does not work without profound cultural change as it emphasizes leadership, teamwork, empowerment, entrepreneurship and risk-taking (Tersine et al., 1997; Ursic et al., 2005). SMEs are often perceived as more innovative than larger firms (Carrier, 1995) and employees are often given operational responsibility (Brady & Voss, 1995). Decision-making in SMEs is often dominated by the CEO: this may aid or hinder re-engineering.

Structure: Small businesses encourage team and cross-functional orientations (Kinni, 1995). The lack of bureaucracy makes for efficient and informal internal communication networks to manage processes. SMEs are able to respond readily to changing customers' needs. Due to the lack of management layers, small businesses are closer to their customers (Brady & Voss, 1995). Thus, SMEs should be well positioned for re-engineering with their focus on process.

Resources: Two serious problems SMEs face when trying to implement quality management

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