A model for implementing BPR based on strategic perspectives: an empirical study

Ing-Long Wu[*]

Department of Information Management, National Chung Cheng University, 160 San-Hsing, Ming-Hsiung, Chia-Yi 621, Taiwan

Abstract

Business process reengineering (BPR) efforts have been reported successful in many firms. However, the failure rates were as high as 70%. Various reasons for this have been given in past research. One major reason was that the efforts had not been connected to the corporate goals. In addition, the steps in implementing BPR in past discussions were, however, incomplete and the papers merely reported a part of the process. This study proposes an integrative approach based on a strategic perspective. Basically, this framework involves three steps that: (1) identify corporate strategies based on analysis of a strategic thrust/strategic target matrix; (2) select strategic paths for BPR based on analysis of a functional coupling framework with the IT application; (3) implement BPR based on analysis of project characteristics to decide on a suitable version of the composite methodology. Furthermore, this framework is illustrated by using an empirical study to demonstrate its application in some business units. © 2002 Elsevier Science B.V. All rights reserved.

1. Introduction

Business process reengineering (BPR) has been considered as an important way to reshape business organizations for achieving breakthrough improvements in performance. In fact, BPR involves relatively extensive work, not only in emphasizing the concept of processes, but also by requiring understanding in parts of the organization on topics such as: adoption of technology, organizational structure, job design, human resource, etc. [12]. In particular, information technology (IT) is essential in the innovative redesign of business processes [3,4,10]. IT's strategic role in BPR should be included from the very beginning, otherwise the results will be much less than hoped.

Studies of BPR projects have reported very large failure rates. Various reasons have been given, most connected to the mismanagement of projects [34]. While it has been suggested that BPR should be connected to the firm's goals, actual practice seems to be different. In many cases of failures, it appears that BPR has been viewed and applied at an operational or tactical, rather than strategic level. The failures may be because BPR cannot keep up with the pace of environmental changes, resulting in failure to meet organizational requirements. The solution proposed here aims at setting long-term goals and then bases BPR on the needs. This would help planners to identify a set of critical processes that are aligned with the firm's strategic performance and then become candidate processes for further implementation.

The process of implementing BPR is also often incomplete and fragmented in past literature. The solution

*[*] Tel.: +886-5-272-0411x34620; fax: +886-5-272-1501.
E-mail address: ilwu@mis.ccu.edu.tw (I.-L. Wu).

to this problem might be achieved in two steps. The first step can be considered from two aspects. First, to achieve substantive reengineering performance, a business process should be first analyzed by certain characteristics from a high-level perspective [33]. These pertain to how different functions are coupled to each other and orchestrated to produce a common process outcome. Second, IT is viewed as a powerful enabler in BPR, and thus BPR efforts would be difficult to implement without the support of IT. Past studies for strategic use of IT in organizations are abundant [30,38]. Thus, many researchers have tried to extend the viewpoint of IT's strategic use to business processes.

The second step is in physically implementing BPR tasks for candidate processes. Various project characteristics call for different methodological choices and there are numerous reengineering methodologies for selection. This makes BPR project planners difficult to physically proceed for BPR. Thus, the identification of a suitable methodology is an important consideration for implementing BPR.

In conclusion, it is therefore imperative to approach BPR with an integrative aspect of the three steps discussed above. Furthermore, the analytical techniques used for each step are also discussed. Finally, this framework is examined by an empirical study.

2. Literature review

2.1. IT and BPR

When the business environment becomes both complex and changeable, the traditional functional architecture and the division of labor no longer satisfy the organizational needs. Thus, an integration of cross-functions based on a process perspective is expected to increase organizational efficiency [17,18]. IT is a major facilitator of BPR and it must be considered in the process [11,36]. In particular, the introduction of IT into an organization should be associated with the empowering aspects of the jobs held by the organizational personnel, indicating that IT and BPR are closely interrelated [1,26]. The application of IT always accompanies BPR, and as a result there is some degree of improvement in performance [14,15]. Without the involvement of

IT's role in BPR, the efforts will be destined to failure [9,16].

2.2. Operational aspects of BPR

BPR is the examination of the flow of activities and information that make up the key business processes in an organization with a view to simplification, cost reduction or improvement in quality or flexibility [24]. BPR focuses almost exclusively on improving the firm's internal operations such as product distribution and delivery performance to the customers [31]. BPR is defined as a one-time process innovation effort to achieve radical business improvement [7]. BPR is defined as a fundamental rethinking and redesign of operational processes and organizational structure, focused on the organization's core competence, to achieve dramatic improvements in organizational performance [22].

2.3. Identification of corporate strategies

The identification of corporate strategies must be able to predict the future development, take the lead in business process thinking, and draft plans for emergency, to meet the future and uncertain challenge [21]. These methods to develop strategic opportunities include: a five competitive force model, analysis of the value chain [25], the strategic thrust/strategic target matrix [37], critical success factors [28], the customer resource life cycle [19], and McFarlan's framework [23].

More specifically, the adoption of these methods to identify strategic opportunities and further the application of IT to achieve the strategic opportunities were not very clear for the performance in practice, except for the value chain and strategic thrust/strategic target matrix [2]. The first considers the analysis of internal functions and hopefully achieves competitive position through the changes of internal functions, while the second is directed to the analysis of external environment, for which the proper strategies are developed toward certain targets, as indicated in Fig. 1. This matrix constitutes three strategic targets: suppliers, customers, and competitors, and five strategic thrusts or competitive strategies: cost, innovation, growth, strategic alliance, and differentiation.