Challenging the paradigm of the process enterprise: a case-study analysis of BPR implementation

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Abstract

The dangers of functional organisation structures are well documented and have led to the advocation, particularly by exponents of BPR, of the process enterprise paradigm. This paper reports the results of case-study research that was conducted in order to explore the operational changes resulting from re-engineering companies along process, rather than functional lines. Increased market responsiveness, improved collaboration between functions and alignment of organisational objectives were some of the perceived benefits of the new process structures; but some disadvantages were also identified. Duplication of functional expertise and increased operational complexity resulted in an escalation of costs, the emergence of horizontal silos, inconsistency in the execution of functional decisions between processes, and general erosion of the efficiency of the operations network. These preliminary findings point to some possible contingencies of organisational design, suggesting that process structures may be conducive to the realisation of differentiation strategies, whilst functional structures may offer benefits to cost leaders. It is further proposed that matrix structures may be appropriate for companies adopting mixed strategies; however, it is envisaged that a more flexible approach to organisational design, based on a network rather than a matrix paradigm, could stimulate new developments in the future quest for strategic and structural alignment. © 2002 Elsevier Science Ltd. All rights reserved.

1. Introduction

BPR is a radical form of organisational re-structuring based on process, rather than functional lines. It aims to improve the interface between the diverse organisational activities which support the provision of products and services to the customer, with a view to improve business performance and market responsiveness. Exponents such as Hammer [1], Hammer and Champy [2] and Davenport [3] emphasise the importance of adopting revolutionary new approaches to organisational design, maintaining that the small, incremental improvements, characteristic of Kaizen [4] and the 5-S approach [5,6], are often inadequate to sustain the dramatic performance improvements which are required to compete effectively in aggressive markets.

The advocates of BPR have consistently promoted the concept of the process enterprise, although it is often unclear as to whether process structures should replace functional hierarchies or be overlaid onto them in a matrix structure. This paper presents the findings of case-study research into the perceived benefits and costs of process structures, compared to the traditional functional hierarchies. The research is based on two case studies of large UK organisations which adopted process-based organisation structures during the 1990s, and reflects on the perceived impact, both positive and negative, of this structural change on the companies' operations.

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2. BPR and the process enterprise

Ishikawa [7] was one of the first quality management exponents to highlight the dominance of vertical, functional structures and the lack of horizontal integration, with his well-known textile analogy in which the "warp" of an organisation structure is seen to be more robust than the "weft", resulting in defective fabric. Harrington [8] contends that the internal focus of functions and departments, and the failure to manage the interfaces between them is a central contributor to what he sees as the declining competitiveness of US industries. He regards process improvement as the route to improved business performance and claims that "The truth in process improvement is: if you bisect any process into its individual activities and then optimise the individual activities, the process as a whole will not operate as effectively as it could" [8, p. 24]. The dysfunctional effects emanating from poor organisational integration were also exposed in Hammer's seminal paper (1990) in which he argued that conventional structures:

> ... are breeding grounds for tunnel vision, as people tend to substitute the narrow goals of their particular department for the larger goals of the process as a whole. When work is handed off from person to person and unit to unit, delays and errors are inevitable. Accountability blurs, and critical issues fall between the cracks. Moreover, no one sees enough of the big picture to be able to respond quickly to new situations. Managers desperately try ... to piece together the fragmented pieces of business process. (p. 108)

Furthermore, poor intra-organisational handovers typically reduce customer responsiveness and service quality; as Bounds et al. [9] argue, "managers must realise that work that flows up and down the chains of the hierarchy does not create value for the customer" (p. 303).

In response to the problems created by strong vertical structures, the paradigm of the process enterprise has become a critical element in the BPR toolkit for driving radical change: "a process enterprise is the organisational form for a world in constant change" [10, p. 118]. Indeed an empirical survey of management perceptions of BPR implementation by Lu and Yeh [11] suggests that managers believe that the more dynamic the business environment, the more desirable a process enterprise is likely to be. Hall et al. [12] and Grover et al. [13] also conclude from their empirical studies that a formal BPR organisation structure, with broad, end-to-end processes, is a necessary condition for successful BPR implementation and any real impact on bottom-line performance.

At this point it is perhaps worth making the distinction between business process re-engineering and other related approaches. First, business process redesign [14] focuses on redesigning processes which may straddle departments and functions but which do not necessarily result in the radical re-design of an entire organisation; and second, the more re-cent concept of business network re-design, BNR [15,16], which takes BPR beyond organisational boundaries to consider re-design of entire operations networks. In this paper, the focus is on business process re-engineering, implying radical organisational re-structuring; specifically, the implications of re-structuring along process lines will be explored from an operations perspective.

While advocating the process enterprise, there is a noticeable absence in the BPR literature of a single, shared definition of the term "process" [17]. Davenport and Short [14] define processes as "a set of logically related tasks performed to achieve a defined business outcome" (p. 12), whilst Hickman's [18] definition emphasises the inter-dependence of these activities: "a logical series of dependent activities which use the resources of the organisation to create, or result in, an observable or measurable outcome, such as a product or service". Childe et al. [19] define a process more simply as "a series of continuous activities or operations which are performed upon a commodity", where a commodity might be conceptual or material.

Despite these definitional ambiguities, the paradigm of a process enterprise dominates BPR methodologies and practice guidelines: an organisation structured on the basis of key processes which cut across the traditional functions, and which are usually differentiated in terms of product markets, production volumes or customer types [9]. At its most radical, BPR implementation would involve eliminating the traditional functions and adopting a "pure", exclusively process-based structure. Indeed, the advocates of BPR, particularly Hammer, are notorious for prescribing radical change and the dismantling or "obliteration" [1] of old, out-dated structures to meet the dynamic demands of business environments in the new millennium.

However, in his more recent works Hammer does not confine his critique of conventional structures to the traditional functional hierarchies: "The power in most companies still resides in vertical units—sometimes focused on regions, sometimes on products, sometimes on functions— and those fiefdoms still jealously guard their turf, their people, and their resources" [10, p. 108]. Furthermore, Hammer and Stanton explicitly state that implementing BPR does not necessarily entail dismantling the vertical structures: fundamental change "doesn't mean, though, that existing vertical units such as functional, regional, or product groups are simply disbanded—in even the most process-focused businesses, vertical units continue to play essential roles" (p. 111). Womack and Jones [16] also see the value of functions, whilst at the same time promoting the need for effective management of value streams that cross functional and company boundaries: "In the so-called learning organisation, functions are where learning is collected, systematised, and deployed. Functions, therefore, need a secure place in any organisation" (p. 94).

This recognition of function-based value points to the adoption of matrix structures rather than "pure" process structures, and, indeed, a rather less radical approach to