

PLANNING BUSINESS PROCESS REENGINEERING (BPR) IN ACADEMIC LIBRARIES

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ABSTRACT

Academic libraries have always been playing a vital role in supporting the teaching, research and several other academic activities of its parent organization. However, these institutions are now facing organizational stress owing to the vast increase in number of publications, especially serials, in various formats, advances in information technology and increase in the propensity to consume information by academic community. The current situation necessitates the academic libraries to reengineer their traditional tools and work processes in order to make them more productive and effective. Business Process Re-engineering (BPR) has successfully been experimented in the business world for the revitalization of the organization. The proper planning and implementation of BPR in "the core processes" of the library would eliminate duplication and unnecessary steps, which add no value to library processes, improve user satisfaction, minimize cost and deliver quality services. The practical aspects of planning BPR from the perspective of academic libraries is discussed. The case studies highlighted the experiences with BPR as part of a strategic change in the management of academic libraries.

Keywords: Business process re-engineering; Academic libraries.

INTRODUCTION

The primary purpose of an academic library is to support the teaching, research and other academic programmes of its parent organisation. Traditionally, this was achieved through 'local ownership' i.e., extensive collection building and provision of a wide range of reference and lending services in-house. However, information technology (IT) has brought out a transformation in the traditional tools and work processes of the library, which has made them more productive and effective. As a result of this change, the simplistic solutions of the past may no longer be valid or effective. Steele (1995) pointed out that, "in the network environment, by the time libraries get round to buying, processing and putting materials on shelves for use, the academic network riders will have

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left libraries far behind”. Hence, the traditional libraries and their managers are under tremendous organisational pressure and are facing the probable threat of extinction. Academic librarians today need to work like their counterparts in the business world. They should rethink how to manage and organise the library operations and activities to reengineer their processes for the new millennium.

BUSINESS PROCESS REENGINEERING (BPR)

Business process reengineering (BPR), the buzzword in the business world is the process of relooking at the “core processes” and questioning whether they should be continued, reinvented or discarded.

Hammer and Champy (1993) define reengineering as “the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service and speed”. The rethinking is fundamental because it assumes nothing; it asks ‘why’ and ‘what should be’ not ‘what is’. ‘Process’ refers to making a map of steps used to complete any routine job in the business. ‘Reengineering’ refers to changing those routine work steps to increase job speed and productivity.

BPR: FORCE TO REVITALIZE LIBRARIES

Libraries in general and academic libraries in particular have been experiencing a number of major developments. These include drastic cuts in library budgets, vast increases in the number of publications especially serials, increasing availability of scholarly publications in a wide range of formats, improved methods of bibliographic control, different methods of accessing and delivering information caused largely by improvements in IT, poor allocation of funds for library technologies, etc. The current situation indicates that it is financially impossible for libraries to keep abreast of information growth and maintain their mission. This has caused serious dissatisfaction among academic library users. It is now the library administrator’s job to figure out how to provide quality service to his clientele. In the business world, there are tools such as reengineering, outsourcing and downsizing that have been successfully used to overcome organisational distress and make profits. The same tools can be used to save libraries.

Scepanski (1996) suggests that libraries should consider reengineering as a way to radically adjust what they do in response to current technological and social changes. He further concludes that a radical re-examination of librarianship may lead to the rejection of many things that librarians traditionally do. The librarians have to “slaughter some sacred cows” when

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reengineering processes begins (Piggott, 1995). They must eliminate activities which have become endemic processes but which add no value to library services or the process.

BPR PLANNING IN ACADEMIC LIBRARIES

The planning of a BPR outlines steps for the strategic, cultural and technical aspects of an organisation and in this case a library. Fitzgerald and Murphy (1996) advocates a practical methodology developed by the Executive Systems Research Centre (Fitzgerald and Murphy, 1996). It is expressed by following series of phases (Appendix):

- Select process to be reengineered
- Establish process team
- Understand the current process
- Develop visions of improved process
- Identify the actions needed to move the new process
- Execute a plan to accomplish these actions

However, Davenport and Short (1990) prescribe a five-step approach to BPR (Malhotra, 1996). These steps are discussed from the perspective of an academic library.

Step 1. Develop business vision and process objectives

BPR is driven by a business vision, which implies specific business objectives such as cost reduction, staff-time reduction, output quality improvement, physical hand-offs minimisation, elimination of duplication and unnecessary steps, perform work where it makes the most sense, improve customer satisfaction, encourage risk-taking and innovation, as well as deliver quality products. Wilson (1998) considers BPR in libraries and focuses on the following major objective:

- taking the customer as the “starting point” for change by identifying user needs and redesigning processes for more customer/user satisfaction;
- redesigning work processes of the library to reflect organisational goals; and
- supporting the “front line” performance of the parent organisation.

Step 2. Identify the process to be redesigned

There are two approaches to identify a process for redesigning such as high-impact approach and exhaustive approach. High-impact approach focuses on the most important processes or those that conflict most with the business vision. The exhaustive approach attempts to identify all the processes within an organisation and then prioritise them in order of redesign urgency (Malhotra, 1998).

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Librarians have to focus on services, which are mission-critical and most valued in their libraries. Wilson (1998) identifies the key processes of an academic library, which constitute acquisition of physical and electronic material, processes including cataloguing, classification, serial control, inter library loan, reader support services, information enquiry services, etc. These are the core information handling processes of the library, which need to be redesigned to meet the objectives stated in step 1.

Step 3. Understand and measure the existing processes

It is highly essential to understand the current processes and evaluate these processes in terms of cost, staff-time, quality of product and services as well as organisational goals. This helps in avoiding the repetition of old mistakes and for providing a base line for future improvements. As BPR focuses on user satisfaction, the librarians in academic libraries should conduct user studies to measure their satisfaction towards the services and processes of the library. Benchmarking of existing process should take place at this stage which would later help in the evaluation of the reengineered process. In order to examine the pros and cons of a process, SWOT (Strength, Weaknesses, Opportunity & Threats) sessions should be conducted among the team empowered for re-engineering.

Step 4. Identify IT levers

Information technology acts as an enabler towards the performance of library operations such as acquisition, processing, storage and retrieval of information. We have witnessed the introduction of IT products into the library, including personal computers, fax, video conferencing, teleconferencing, CD-ROMs, Local Area Networks (LANs), Metropolitan Area Networks (MANs), the Internet and WWW. A good number of software products for library automation are available in the market today. These packages integrate the library activities, which in turn reduce staff-time, avoid duplication of work and make the work processes faster and better. While thinking of redesigning a library process, the appropriate IT as an enabler should essentially be taken into consideration.

Step 5. Design and build a prototype of the new process

The actual design should not be viewed as the end of the BPR process. It should be viewed as a prototype, with successive improvements. The metaphor of prototype aligns the BPR approach with quick delivery of results, and the involvement and satisfaction of customers.

CASE STUDIES OF BPR IN LIBRARIES

One can find many projects involving the reengineering of library processes emphasising on quality improvement and user satisfaction. A number of

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academic libraries, mostly in American and European countries have undertaken projects to reengineer their core processes and have successfully done so. Two of such projects are described below.

(a) Stanford University Library

In 1994, the top management of Stanford University Library (SUL) appointed a redesign team to work with Still Water Consulting Group, an external consultant, to apply principles of reengineering to the acquisition-to-access process in order to realise at least \$750,000 cost savings from the technical services budget, while maintaining the same or improving efficiency, speed and quality of service.

The team represented a cross-section of experienced staff and experts within the library system at Stanford, including technical services librarians, selectors, a finance officer, and an information technology manager. The Still Water Consulting Group facilitated the team's efforts and provided analytical support for process and cost examination. Initially, the team studied the library and management literature related to reengineering concepts, workflow design, and vended services. The team interviewed staff and conducted walk-through of most technical service sections in SUL, contacted colleagues in a variety of libraries, visited vendor websites, and compiled information on vendor and utility offerings.

The Redesign Team's final report recommended a conceptual redesign that focuses on eliminating duplicate transactions, using technology as well as vendor services whenever possible to increase efficiencies, and performing tasks at the time of the location that makes the most sense (Stanford University Libraries, 1996)

(b) University of Illinois at Chicago Library

Technical services at University of Illinois were going through the reengineering process, which had a major impact on public services offered to library patrons. Graves (1997) reports on two of these projects comprising, access to electronic reserves, and access to electronic full-text journals at the Library of Health Sciences (LHS), University of Illinois.

An external consultant was brought in to introduce the reengineering concepts to staff and to guide the reengineering process. The Steering Committee focussed on user expectations and user behaviour. User behaviours were examined by analysing public terminal use logs, circulation, and inter-library loan approaches and statistics. User expectations were explored in focus groups, and library performance was compared with other peer libraries and external organisations. The Committee followed the clean slate design, which discards an old process, and then completely redesigns process based upon customer needs and preferences.

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CONCLUSION

Libraries in general and academic libraries in particular worldwide are seriously trying to enhance the provision of information. However, the changes both in information technology and information needs of users make it necessary to reassess and reengineer the work processes of the libraries to enable them to achieve their institutional goal. BPR as a business-focused methodology for radical change works in collaboration with information technology. Library managers should adopt BPR in their organisation's portfolio of change management strategies to lead their libraries into the future of continuing rapid developments in information technology, continuing fiscal restraint, and continuing increase in user expectations.

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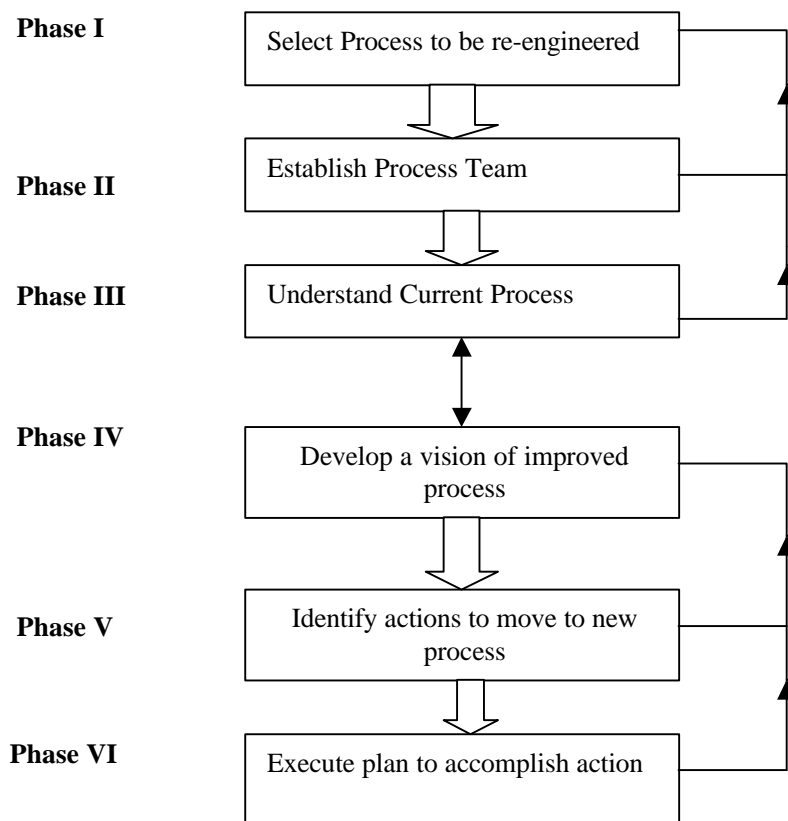
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Appendix

Figure 1: Methodology for Business Process Reengineering



Source: Practical application of business process re-engineering (Fitzerald and Murphy, 1996).