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Preparing for a change: A planning framework for business process reengineering

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ABSTRACT

Business Process Reengineering (BPR) projects offer organizations a means for improving their business processes. The high failure rate associated with BPR projects points to the need to have detailed plans designed prior to introducing change. This article provides a planning framework modeled on Lewin's three-stage change model. The framework incorporates both social and technical aspects of the project.

The framework presented is a comprehensive planning process. It presents a guideline for establishing a solid foundation prior to implementing change. Although good planning cannot guarantee success, success without planning is impossible.

INTRODUCTION

Business Process Reengineering (BPR) is a radical redesign of strategic, value-added business processes to improve the performance of a company (Davenport & Short, 1990; Davenport & Stoddard, 1994). It is estimated that up to 90% of large U. S. Corporations are involved at some level in a BPR project (Rai & Paper, 1994). The more important statistic, however, is the reported failure rate of BPR projects. As many as 65% ultimately are termed unsuccessful. The failures consistently are attributed to inadequate planning (Lancione & Coleman, 1995). Inadequate planning often results in unrealistic expectations by management, inadequate resource allocation, inappropriate selection of project scope, and insufficient attention to change management and employee training (Klein, 1994). Comprehensive planning is key to the successful implementation of a BPR project.

A comprehensive planning program considers all facets of the proposed project. BPR projects typically integrate cross-functional activities and lead to significant changes in organizational structures and job roles (Davenport & Short, 1990). Because BPR projects result also in adopting new information technology applications, a holistic planning approach considering both the

social aspects and the technical aspects associated with change is necessary. Social aspects are defined as those considerations necessary to help individuals accept and embrace change. The social aspects include involving employees early in the planning process, maintaining open communication by providing frequent updates on the project, and providing training to employees. Technical aspects reflect the adoption of or use of information technology applications to bring about the change. The technical aspects in the planning process include determining opportunities for change, conducting benchmarking activities to assist in setting realistic goals, evaluating computer-based tools to support the change, and designing realistic time lines for the project. This paper presents a frame work where technical and social aspects are given equal weight throughout the planning process.

PLANNING FRAMEWORK FOR SUCCESSFUL BPR IMPLEMENTATION

Planning can be defined as formulating a scheme for the purpose of achieving the level of desired change. A respected model for controlling change is Lewin's (1947) three-stage model. He labels the stages of change as unfreezing, moving, refreezing. The unfreezing stage disturbs the current stable equilibrium and introduces the need for change. The moving stage presents a new direction and starts a learning process. Integrating the change within existing behavioral frameworks is called refreezing. BPR aims at developing breakthrough improvements in performance. The framework shown in Figure 1 illustrates three key stages involved in BPR planning with both social and technical aspects highlighted.

Figure 1. Social and Technical Aspects within the Three-Stage Framework

Social Aspects

Stage 1: Unfreezing for Goal Setting

Shared Vision:

- Obtain commitment
- Appoint steering committee
- Involve stakeholders

Stage 2: Strategies for Moving

Change Management:

- Apply change management theory
- Communicate with stakeholders

Stage 3: Plans for Refreezing

Plans for Social Changes:

- Reevaluate performance measures
- Schedule training

Technical Aspects

Project Definition:

- Determine opportunities
- Identify IT enablers

Methodology Adoption:

- Examine methodologies
- Evaluate BPR tools

Plans for Technological Change:

- Select and train a BPR team
- Design schedule

PLANNING FRAMEWORK STAGE ONE: UNFREEZING FOR GOAL SEEKING

Social Stage One: Shared Vision

The main goal of the first stage is to "unfreeze" the equilibrium of the current state and to reach a shared vision of and a commitment for a change. Two important social aspects of stage one are obtaining a commitment from senior management and getting key individuals involved in the project. To build the momentum for change and to create the level of support necessary to support a BPR project, Stage One of the Framework encourages the inclusion of all stakeholders in the early planning steps. Success is more likely to be achieved if all stakeholders share a vision of and feel ownership in the project (Regan & Hunt, 1996).

Senior Management Commitment. Involving senior management in the planning of a BPR project is crucial to the success of the project (Manganelli & Klein, 1994). They must acknowledge the need for a change, and they must reach a consensus on the amount of change they are willing to support. The potential costs, risks, and time involved with a project needs to be understood. The need for complete support is so critical to the success of a project that without it a project should not be undertaken.

Steering Committee Selection. One person cannot be responsible for overseeing a BPR project. Ideally the steering committee appointed to plan the project will have members from various functional areas. Having multiple functional areas involved helps to avoid "within-the-box" thinking and the possible perception that certain functional areas are more important than others. It is desirable that a BPR leader chairs this committee. The BPR leader is typically a senior executive who has enough "clout" to bring about the change.

The committee will need guidance as most members will not have experience in overseeing a project of this magnitude. Training seminars can help committee members better understand their role and help them achieve a shared vision of the project (Bashein et al., 1994). One way to add BPR experience to a steering committee is to include outside consultants on the committee. Although a person from outside the organization will not be knowledgeable about the daily operations of the organization, that lack of knowledge can be an advantage. The outside member(s) can bring a fresh perspective and does not have the loyalty others may have to specific functional areas or procedures. Outside consultants typically have been involved with other BPR projects, so they will be better able to identify potential delays or technical problems based on that experience. If an outside member(s) is part of the committee, that person will need an orientation to the organization.

Stakeholders Involvement. A common problem with BPR projects is limiting stakeholder involvement. Stakeholders are customers, suppliers, and employees. A proven method for reducing negative reactions to change is to involve stakeholders in the project planning process. Involving employees can be accomplished by conducting sessions where they are asked to provide suggestions for improving a specific process, inviting employees to serve on a task force or to provide ad hoc services on a segment of the project, or soliciting their input through

questionnaires, interviews, and focus groups. Although it may be too early to have extensive customer or supplier input in stage one, their perspective on project/service quality, responsiveness, and advertising can be very useful in the early planning stages.

Asking customers, suppliers, and employees for their input is not sufficient, they also need to be kept informed and provided with opportunities to ask questions. Newsletters, meetings, and training sessions are useful means for sharing information, soliciting input and support, and answering questions or concerns. The time spent on such activities is well spent because the level of organizational change produced by BPR projects requires continual commitment and support from stakeholders.

Technical Stage One: Project Definition

Technical planning aspects in stage one focuses on exploring opportunities to maximize the results of the proposed change. This stage includes initiating benchmarking (Guha et al., 1993) activities and identifying enabling technologies.

Opportunities Explored: Successful BPR projects cross traditional, functional-area boundaries to develop new processes. The steering committee begins the search for possible new processes by mapping the current processes of the organization. For each process two questions are asked and agreement must be reached. The questions are "Why do we do it?" and "Why do we do it this way?" As the internal review is occurring, committee members also are gathering information from customers, suppliers, and workers to obtain their perspective on the strengths and weaknesses of selected processes.

An accepted practice for identifying opportunities for improvement is to benchmark. Benchmarking is a learning process whereby the practices of superior organizations are examined. The first step is determining what to benchmark. The BPR opportunities identified during the internal review will shed light on critical areas to benchmark, i.e., customer service or product quality. Next, the companies that excel in the critical areas are identified. Although getting the names of the candidate companies and their performance data are not simple, periodicals, newspapers, trade shows, and on-line data bases are potential sources. Encouraging every employee to assist in gathering information can improve the data collection effort. Each source should be evaluated for its accessibility, bias, reliability, and accuracy (Manganell & Klein, 1994).

At this point in the planning framework, the committee members are identifying opportunities and locating organizations willing to allow their processes to be used as a benchmark. The benchmarking process will provide the steering committee with information on how other organizations are accomplishing specific processes. The objective is not to emulate those processes but to use the information to create a new benchmark appropriate for a specific organization.

Enabling Technologies Identification. The steering committee also is charged with identifying the best information technology (IT) for the project. Information Technology (IT) enables organizations to change. Advancements in network technologies, for example, have allowed organizations to reconfigure their business processes from a serial to a parallel pattern where

several functions can be executed concurrently. An innovative application of shared computing resources, such as imaging or common data bases, can be a powerful enabler for process redesign. Distributed processing, client/server architecture, and EDI technology are all considered enabling technologies. When enabling technologies are combined with other information systems technologies such as expert systems (ES), decision support systems (DSS), or executive information systems (EISs), organizations have powerful tools capable of improving internal efficiency and external communication. The committee should identify the ITs that appear to be the most appropriate for meeting the needs of the project.

PLANNING FRAMEWORK STAGE TWO: STRATEGIES FOR MOVING

Social Stage Two: Change Management

Stage Two involves developing strategies to bring about the desired level of change. Maintaining open communication channels and managing the change process are critical social tasks for the second planning stage. Change management theory is employed to reduce anxiety levels and to foster an atmosphere of trust and sharing.

Change Theory Applied. Managing the change process is a difficult task. It is a common practice to designate a team (or in some cases an individual) to serve as the change agent. The change agent coordinates activities with the steering committee, all task forces, management, and other stakeholders. The change agent is responsible for selecting the best methods for communicating, initiating, and managing change within the organization (Regan & Hunt, 1996).

The need for a change agent is often overlooked by organizations planning a BPR project. The assumption is that management will identify and handle any problems. Such an approach is ignoring volumes of research on how individuals and organizations in general react to change. Managers will be immersed in the change process themselves. Asking individuals already under personnel stress caused by change to identify and remedy change-related problems experienced by others is unrealistic. A change agent will need extensive training in change management theory and must be released from other duties. When a team is used as the change agent, all levels and functional areas ideally are represented.

Communications Channels Opened. A common outcome from processing reengineering is a restructuring of the organization. Whether the restructuring includes centralizing, decentralizing, or empowering employees, communications is a key component to accomplishing the change. All employees will experience some stress during the period leading up to the change, during the change, and immediately after the change. Some employees may fear that they will lose their jobs, status, or seniority. Every effort should be made to keep communication lines open and to provide workers with accurate information even if the information is negative.

Technical Stage Two: Methodology Adoption

Once the steering committee has identified and agreed upon the opportunities available through a BPR project, it begins the process of evaluating BPR tools and selecting a methodology to follow. A methodology is a guideline for implementing a BPR project (Guha et al., 1993; Manganelli & Klein, 1994). It is necessary to define the project's stages as well as the deliverables and critical success factors before adopting a methodology.

Methodologies Examined: BPR implementation methodologies have been outlined by experts in reengineering and are readily available in the literature (Guha et al., 1993; Klein, 1994; Manganelli & Klein, 1994). The steering committee can study BPR projects completed by other organizations to set realistic parameters and to identify the critical success factors (CSFs) for the proposed project. SCFs are the things that must go right for the BPR project to succeed. SCFs are the activities that will need constant and careful attention from the steering committee. Examples of CSF's include accurate assessment of information technology requirements, effective communication among stakeholders (including management, BPR leaders, and employees), and appropriate allocation of resources.

BPR Tools Evaluated. A variety of computer-based tools appropriate for BPR projects is available. They range from simple diagramming tools to complex packages with multiple modeling techniques. The scope of the project, need for integration with current information systems and hardware, vendor support, and training requirements will be important criteria for selecting a BPR tool.

PLANNING FRAMEWORK STAGE THREE: PLANS FOR REFREEZING

Social Stage Three: Planning for Social Change

The final stage of the planning framework focuses on developing plans for restablilizing. Implementation has not begun; only the planning for the implementation stage of the project is being considered at this point.

Reevaluate Performance Measures: During the change period, employees will not be working at the same level of productivity as they were prior to the change. Informing employees that performance measures will be adjusted or eliminated during the change period send employees a strong message of managerial support (Regan, 1995). After the change, new performance measures can be designed to fit the current situation. In addition to adjusting performance criteria, a reward system providing positive reinforcement can be initiated. Rewards can be compliments, awards, t-shirts or other symbols that communicate to workers that their efforts are recognized and appreciated.

Schedule Training: Training helps employees adjust to changing job duties and working relationships. Training can range from large meetings to one-on-one coaching. Informational meetings during the planning stages are appropriate for providing general information on

anticipated changes to organizational structures and work processes. Individuals who will be assigned new duties or responsibilities will need in-depth training. The amount and length of training will depend on the degree of change in corporate culture and/or job responsibilities. Taking training needs into consideration during the planning process provides training professionals with the time they need to develop training seminars and materials.

Technical Stage Three: Preparing for Technical Change

Selecting and training the BPR team are important technical aspects of the final planning stage. The BPR team will take over for the steering committee. The team will be responsible for designing and developing the system.

Select and Train the BPR Team: The BPR steering committee assigns the task of implementing the BPR project to a team of individuals who have the combined expertise in the functional areas (for the selected processes being changed) and in process analysis and design theory. Ideally, three types of information systems professionals will be included on the team. Technology specialists will be responsible for evaluating various IT platforms, systems planners will concentrate on enterprise-wide systems integration and compatibility issues, and application specialist will be charged with modeling and developing the new system.

The BPR team will need training on taking new approaches to problem solving. During this planning stage, training is designed to fit the needs of the members of the BPR team. Topics will likely include visualizing and developing different approaches to performing business processes, modeling techniques, process measurement, and project management.

Design Schedule: The BPR team is charged with setting realistic time lines for projects. Included in the scheduling is resource allocation. Because so many projects have failed due to inadequate resource allocation, budgets and time lines demand careful attention at this point of the planning process. Senior management must be willing to commit the resources. The team will work closely with senior management in developing a time line and budget and later in communicating the time line to employees.

SUMMARY

BPR is a complex process capable of fostering dramatic improvements in productivity. It is, however, a difficult process requiring significant organizational change. The high failure rate associated with BPR projects points toward the need for careful planning. The three-stage Planning Framework presented in this article stresses the importance of incorporating both social and technical aspects of the project into the early planning stages.

BPR, as with all change programs, involves unfreezing, moving, and refreezing stages. The planning framework introduced in this paper provides guidelines for each stage. The first stage,

"Unfreezing for Goal Seeking, stresses the need for breaking the equilibrium by establishing a need for a change and by developing a shared vision of the proposed change. Input from all stakeholders is sought and a commitment from management is obtained. "Strategies for Moving," Stage Two of the Framework, includes adopting the methodology and IT tools to support the proposed change. The need for continued communication with stakeholders continues to be stressed in Stage Two. The final planning stage, "Plans for Refreezing," includes training project team members and developing means for providing support to workers as change is introduced.

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