Business process reengineering. BPR

Definition:

The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary modern measures of performance, such as cost, quality, service, and speed.

BPR is different from other approaches to organization development (OD), especially the continuous improvement or TQM movement, by virtue of its aim for fundamental and radical change rather than iterative improvement. In order to achieve the major improvements BPR is seeking for, the change of structural organizational variables, and other ways of managing and performing work is often considered as being insufficient. For being able to reap the achievable benefits fully, the use of information technology (IT) is conceived as a major contributing factor. While IT traditionally has been used for supporting the existing business functions, i.e. it was used for increasing organizational efficiency, it now plays a role as enabler of new organizational forms, and patterns of collaboration within and between organizations.

BPR derives its existence from different disciplines, and four major areas can be identified as being subjected to change in BPR - organization, technology, strategy, and people - where a process view is used as common framework for considering these dimensions.

The role of information technology

Information technology (IT) has historically played an important role in the reengineering concept. It is considered by some as a major enabler for new forms of working and collaborating within an organization and across organizational border.

Early BPR literature identified several so called disruptive technologies that were supposed to challenge traditional wisdom about how work should be performed.

- Shared databases, making information available at many places
- Expert systems, allowing generalists to perform specialist tasks
- Telecommunication networks, allowing organizations to be centralized and decentralized at the same time
- Decision-support tools, allowing decision-making to be a part of everybody's job
- Wireless data communication and portable computers, allowing field personnel to work office independent
- Interactive videodisk, to get in immediate contact with potential buyers
- Automatic identification and tracking, allowing things to tell where they are, instead of requiring to be found
- High performance computing, allowing on-the-fly planning and provisioning
Research and methodology

Simplified schematic outline of using a business process approach, exemplified for pharmaceutical R&D:

1. Structural organization with functional units
2. Introduction of New Product Development as cross-functional process
3. Re-structuring and streamlining activities, removal of non-value adding tasks

BPR Success Factors & Failure Factors

BPR does not only mean change, but rather dramatic change. The constituents of this drastic change include the overhaul of organizational structures, management systems, employee responsibilities and performance measurements, incentive systems, skills development, and the use of IT. BPR can potentially impact every aspect of how business is conducted today. Change on this scale can cause results ranging from enviable success to complete failure. Successful BPR can result in enormous reductions in cost or cycle time. It can also potentially create substantial improvements in quality, customer service, or other business objectives. The promise of BPR is not empty: it can actually produce revolutionary improvements for business operations. Reengineering can help an aggressive company to stay on top, or transform an organization on the verge of bankruptcy into an effective competitor.

Failure Factors

On the other hand, BPR projects can fail to meet the inherently high expectations of reengineering. In 1998, it was reported that only 30 percent of reengineering projects were regarded as successful. The earlier promise of BPR has not been fulfilled as some organizations have put forth extensive BPR efforts only to achieve marginal, or even negligible, benefits. Other organizations have succeeded only in destroying the morale and momentum built up over their lifetime. These failures indicate that reengineering involves a great deal of risk. Even so, many companies are willing to take that risk because the rewards can be astounding.

Many unsuccessful BPR attempts may have been due to the confusion surrounding BPR, and how it should be performed. Organizations were well aware that changes needed to be made, but did not know which areas to change or how to change them. As a result, process reengineering is a management concept that has been formed by trial and error or, in other words, practical experience.

As more and more businesses reengineer their processes, knowledge of what caused the successes or failures is becoming apparent. To reap lasting benefits, companies must be willing to examine how strategy and reengineering complement each other by learning to quantify strategy in terms of cost, milestones, and timetables, by accepting ownership of the strategy throughout the organization, by assessing the organization’s current capabilities and process realistically, and by linking strategy to the budgeting process. Otherwise, BPR is only a short-term efficiency exercise.

Some BPR researchers have focused on key factors in the BPR process that enabled a successful outcome. Over the past years, BPR projects and efforts have revealed some interesting findings for both academics and practitioners.

Many lessons were learned and many elements were identified as essential to the success of a BPR activity. Some important BPR success factors, which will be discussed in further details later, include, but are not limited to the following:
1. Organization wide commitment.
2. BPR team composition.
4. Adequate IT infrastructure.
5. Effective change management.
6. Ongoing continuous improvement

**Organization Wide Commitment**

There is no doubt that major changes to business processes have a direct impact on processes, technology, job roles, and workplace culture. Significant changes to even one of those areas require resources, money, and leadership. Changing them simultaneously is an extraordinary task.

Like any large and complex undertaking, implementing reengineering requires the talents and energies of a broad spectrum of experts. Since BPR can involve multiple areas within the organization, it is extremely important to get support from all affected departments.

Through the involvement of selected department members, the organization can gain valuable input before a process is implemented; a step which promotes both the cooperation and the vital acceptance of the reengineered process by all segments of the organization.

Getting enterprise wide commitment involves the following: top management sponsorship, bottom-up buy-in from process users, dedicated BPR team, and budget allocation for the total solution with measures to demonstrate value.

Before any BPR project can be implemented successfully, there must be a commitment to the project by the management of the organization, and strong leadership must be provided.

Reengineering efforts can by no means be exercised without a company-wide commitment to the goals to be achieved. However, top management sponsorship is imperative for success (Dooley & Johnson, 2001).

The ultimate success of BPR depends on the strong, consistent, and continuous involvement of all departmental levels within the organization. It also depends on the people who do it and how well they can be motivated to be creative and to apply their detailed knowledge to the redesign of business processes.

**BPR Team Composition**

Once organization wide commitment has been secured from all departments involved in the reengineering effort and at different levels, the critical step of selecting a BPR team must be taken. This team will form the nucleus of the BPR effort, make key decisions and recommendations, and help communicate the details and benefits of the BPR program to the entire organization.

The most effective BPR teams include active representatives from the following work groups: top management, business area responsible for the process being addressed, technology groups, finance, and members of all ultimate process users’ groups. Team members who are selected from each work group within the organization will have an impact on the outcome of the reengineered process according to their desired requirements.
The BPR team should be mixed in depth and knowledge. For example, it may include members with the following characteristics:

- Members who do not know the process at all.
- Members who know the process inside-out.
- Customers, if possible.
- Members representing impacted departments.
- One or two members of the best, brightest, passionate, and committed technology experts.
- Members from outside of the organization.

**Business Needs Analysis** Another important factor in the success of any BPR effort is performing a thorough business needs analysis. Too often, BPR teams jump directly into the technology without first assessing the current processes of the organization and determining what exactly needs reengineering. In this analysis phase, a series of sessions should be held with process owners and stakeholders, regarding the need and strategy for BPR. These sessions build a consensus as to the vision of the ideal business process. They help identify essential goals for BPR within each department and then collectively define objectives for how the project will impact each work group or department on individual basis and the business organization as a whole.

The idea of these sessions is to conceptualize the ideal business process for the organization and build a business process model. Those items that seem unnecessary or unrealistic may be eliminated or modified later on in the diagnosing stage of the BPR project. It is important to acknowledge and evaluate all ideas in order to make all participants feel that they are a part of this important and crucial process. Results of these meetings will help formulate the basic plan for the project. This plan includes the following: identifying specific problem areas, solidifying particular goals, and defining business objectives. The business needs analysis also helps in relating the BPR project goals back to key business objectives and the overall strategic direction for the organization. This linkage should show the thread from the top to the bottom of the organization, so each person can easily connect the overall business direction with the reengineering effort.

BPR projects that are not in alignment with the organization’s strategic direction can be counterproductive. There is always a possibility that an organization may make significant investments in an area that is not a core competency for the company and later outsource this capability. Such reengineering initiatives are wasteful and steal resources from other strategic projects. Moreover, without strategic alignment, the organization’s key stakeholders and sponsors may find themselves unable to provide the level of support the organization needs in terms of resources, especially if there are other more critical projects to the future of the business, and are more aligned with the strategic direction.

**Adequate IT Infrastructure** Researchers consider adequate IT infrastructure reassessment and composition as a vital factor in successful BPR implementation. Factors related to IT infrastructure have been increasingly considered by many researchers and practitioners as a vital component of successful BPR efforts. Effective alignment of IT infrastructure and BPR strategy, building an effective IT infrastructure, adequate IT infrastructure investment decision, adequate measurement of IT infrastructure effectiveness, proper information systems (IS) integration, effective reengineering of legacy IS, increasing IT function competency, and effective use of software tools are the most important factors that contribute to the success of BPR projects.

**Effective Change Management**: BPR involves changes in people behavior and culture, processes, and technology. As a result, there are many factors that prevent the effective implementation of BPR and hence restrict innovation and continuous improvement. Change management, which involves all human and social related changes and cultural adjustment techniques needed by management to facilitate the insertion of newly-designed processes and
structures into working practice and to deal effectively with. One of the most overlooked obstacles to successful BPR project implementation is resistance from those whom implementers believe will benefit the most. Most projects underestimate the cultural impact of major process and structural change and as a result, do not achieve the full potential of their change effort. Many people fail to understand that change is not an event, but rather a management technique. Change management is the discipline of managing change as a process, with due consideration that employees are people, not programmable machines. BPR must consider current culture in order to change these beliefs, attitudes, and behaviors effectively. Messages conveyed from management in an organization continually enforce current culture. Change is implicitly driven by motivation which is fueled by the recognition of the need for change.

In conclusion, successful BPR can potentially create substantial improvements in the way organizations do business and can actually produce fundamental improvements for business operations. However, in order to achieve that, there are some key success factors that must be taken into consideration when performing BPR. BPR success factors are a collection of lessons learned from reengineering projects and from these lessons common themes have emerged. In addition, the ultimate success of BPR depends on the people who do it and on how well they can be committed and motivated to be creative and to apply their detailed knowledge to the reengineering initiative.

Organizations planning to undertake BPR must take into consideration the success factors of BPR in order to ensure that their reengineering related change efforts are comprehensive, well-implemented, and have minimum chance of failure.