

BUSINESS PROCESS REENGINEERING IN SMALL COMPANIES

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***Abstract:** Business process reengineering (BPR) has been widely applied in many enterprises. However, most cases have targeted large enterprises. In many countries, small and medium-sized enterprises (SMEs) have played an extremely important role in economic growth. The question of whether those SMEs can successfully implement BPR in order to strengthen their management structure is an important issue. Existing methodologies mainly assume a large organization setting with large-scale resources dedicated to bringing about the large-scale reengineering changes. The paucity of studies in SMEs is surprising given the current and anticipated future market challenges in the SME environment that increase pressure for organizational realignment and responsiveness and market agility.*

***Key words:** Business Process Reengineering,, Small- to medium-sized enterprises, Organizational restructuring*

1. INTRODUCTION

When an enterprise finds that it is becoming less competitive, it will usually invest heavily in information technology to improve its competitiveness. However, if in applying information technology the enterprise does not rethink or streamline its process and organizational restructuring, and instead merely uses computers to speed up the implementation of existing processes, the results are likely to be very disappointing. That is, if an enterprise tries to implement business process reengineering (BPR) or organizational restructuring (OR) using a traditional management framework, the management mechanism will become more complicated, and negative results may be experienced [1].

Fundamentally speaking, BPR or OR does away with traditional management methods based on hierarchical systems. Some traditional methods are retained, but others are rejected; at the same time, imaginative new methods of working are discovered. With BPR, one thinks in terms of the enterprise as a whole, implementing comprehensive, inter-departmental process improvement, and making appropriate use of information technology and training to give the enterprise flexibility and the ability to respond rapidly to changes in market demand [3].

The BPR concept is now widely used in many enterprises. However, the majority of enterprises that have adopted BPR are large enterprises. The vast majority of the field's

literature considers reengineering in the context of large organizations, from both private and public sectors. There is a paucity of studies involving the application of reengineering with SMEs. The reason for this lack of research is possibly reengineering's emergence in large enterprise resulting in a lack of available effort at SME level. Another possible reason is a lack of belief that a resource intensive large-scale change approach can be successfully applied within SMEs [5]. Existing texts, which describe reengineering methodologies often contain a somewhat hopeful postscript which states that the methodology can be applied to SMEs in a less formal manner. So there is a need to consider how SMEs can strengthen their operational structure in order to achieve perpetual operation. One important issue that needs to be considered is whether SMEs can implement BPR successfully [1].

2. DEFINING REENGINEERING FOR SMEs

Most business improvement philosophies, models, tools and techniques originate in the theory and practice associated with large private sector organizations. Thus, it is contended that SMEs often apply business improvement approaches that are fundamentally flawed in an SME context, as they do not start by addressing the key features and constraints of SMEs [4].

Reengineering definitions and resultant methodologies and praxis initially (late 1980s-early 1990s) developed along positivistic assumption lines in relation to organizational learning. While this historical, somewhat mechanistic legacy remains, there has also been the more recent development of reengineering along more phenomenological lines, resulting in more interpretivist and subjective definitions and methodologies [2].

Parkinson and his colleagues [6] points out that this tension in the literature is reflected in change management evaluation and approaches to strategic management. Furthermore, Rickards [8] refers to similar issues in regard to creativity and innovation management - knowledge creation versus the more structured idea generation and filter literatures. Thus, there is a lack of consensus on the most effective paradigm; there is no one right way. As pointed out by Willmott [9], these differing paradigms are not incommensurate and can mutually exist in organizations.

2.1. Positivistic Definitions and Methodologies

The reengineering literature is often associated with large-scale innovation and high-risk change. Reengineering and associated business improvement methods are often classified as a 'mechanized' view or paradigm of organizations [4]. This mechanistic approach leads to stepwise methodologies for reengineering implementation. Some approaches support the use of mechanistic methodologies, which essentially start with process identification and analyses, then process innovation and application (see Figure 1).

2.2. Phenomenological Definitions and Methodologies

If the current paradigm of reengineering is that of a mechanistic nature, it is contended that resulting mechanistic approaches are too simplistic to understand the organizational change

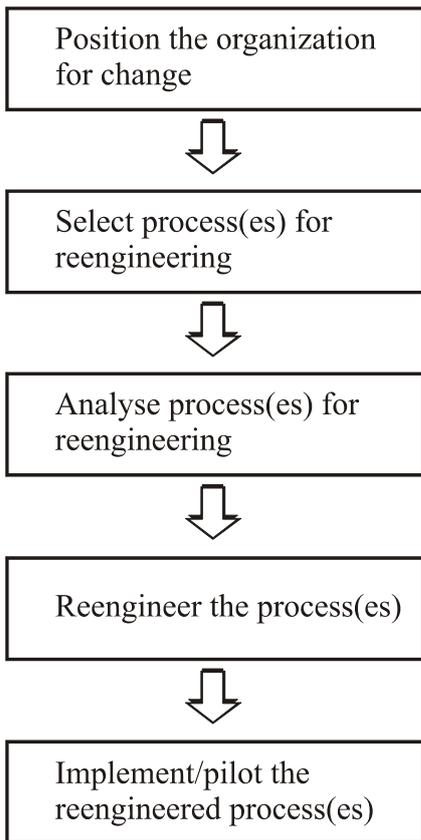


Fig. 1. Positivistic Stepwise Reengineering Methodology [4]

a small business, the benefits created by the firm studied by [1] through organizational restructuring were as pronounced as a large enterprise can do. The case reveals that, as a technology oriented SME without skilled employees, it still has a great potential for successfully implementing BPR.

Otherwise, the research performed by [4] has shown that attempts to solely apply the same reengineering methods as those used in large enterprises to the SMEs studied ended in failure and a need to fundamentally reconsider the definition and methodology associated with reengineering in SMEs. Key factors

issues involved. There is also an associated increase in people and learning issues that are not predicated on pre-set rules and regulations. Willmott [10] describes this change as a shift towards the ‘softer’ issues.

Grint [2] suggests a more balanced, mixed model that is, at least, consistent with the main views of the critical writers. The model indicates that reengineering should develop in four principle quadrants (see Figure 2):

1. Decision Making - Incremental to Utopian.
2. Execution - Rational to Political.
3. Legitimation - Internalist to Externalist.
4. Understanding - Analysis to Synthesis.

3. IMPLEMENTING BPR IN SMALL BUSINESSES

BPR can be successfully implemented in a company no matter what size it is, as long as the company leader has the determination for making changes and the version for perpetual operation. Being

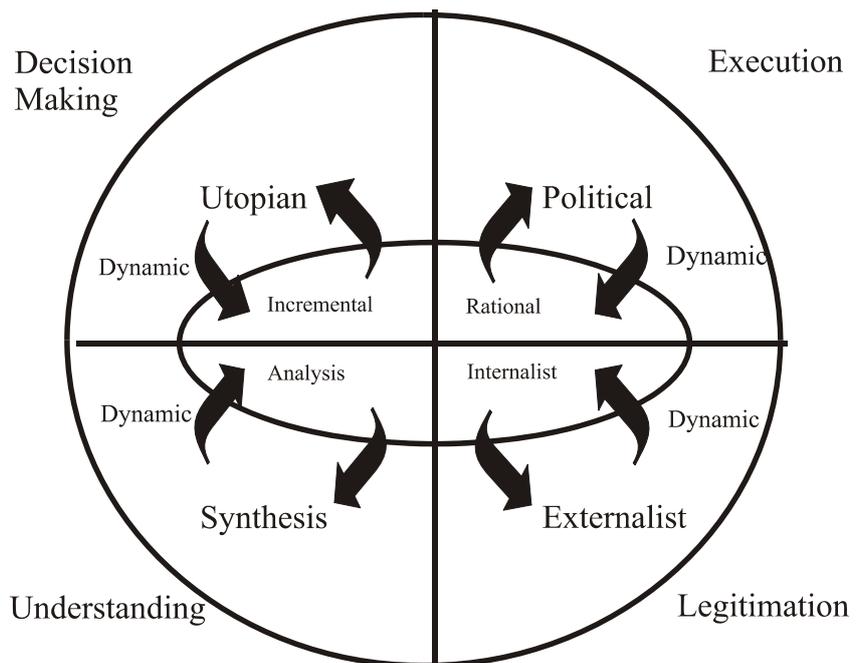


Fig. 2. Phenomenologically Based Model for Reengineering [2]

associated with the failure of solely plan driven large organization reengineering methods when applied to SMEs were resource constraints, rapidly changing markets and customers, leadership roles, the need for agile strategy, flexibility and structure.

The research findings [4] indicate that the SMEs developed their own fundamental understanding and successful implementation of reengineering. Overall, their approach was a combined approach, using a greater number of holistically based approaches that include both positivistic and phenomenologically based strands. The SMEs developed a holistic understanding of reengineering that did not exclude an approach because it did not fit a precise methodology. Furthermore, their understanding of reengineering embraced creativity, innovation and knowledge as key catalysts for reengineering change.

Secondly, in terms of decision making, the ‘new’ reengineering understanding developed by SMEs did not succumb to the temptation to retreat to incrementalism; rather, they retained the radical tenets of reengineering. Large-scale improvements were not seen as the exclusive domain of large organizations and the research [4] revealed many examples of radical improvements in a range of key performance measures.

Thirdly, the research [4] relating to execution, revealed that the SMEs were relying on a range of measures to implement the ‘new’ reengineering. These measures were not restricted to rational implementation reasoning but showed cognizance of political implementation factors such as the more dominant Managing Director's influence in an SME and the organizational culture. Implications for training and development in SMEs include greater emphasis on action-based learning as distinct from formal learning by rote.

Fourthly, the reengineering efforts were ‘legitimized’ within SMEs by linking them to other external business improvement approaches, such as the Business Excellence Model, Investors in People and Modular Manufacturing [4].

On the other hand, from the case of revealed in [1], several implications of applying BPR in SMEs can be included in strategy and management:

a). The implications in management

Establishment of applicable management system - SMEs tend to place too much weight on technology and consequently ignore the importance of management.

Importance of empowerment - before a management system is established, managers typically control all operations in SMEs. However, after deploying BPR, every employee in the company is appropriately empowered according to his/her position. While the discipline and reward pertaining to well-defined responsibilities and authorities, it stimulates employees to pursue the best performance in the company.

Participation of top management - with strong determination, the top management in the case [1] fully utilized external resources and participated in the entire process from planning, providing solutions, and to final execution. It indicates that only when top management actively gets involved in organizational transformation, can a sustainable development of the enterprise be fulfilled.

Transparent information - in an organizational structure of corporate decentralization, profit-sharing, and dynamic skill-learning mechanism, employees are allowed to handle corporate business and to organize project management teams. In addition, corporate information including finance and cost should be transparent so as to achieve the goal of project management and to keep the organization running smoothly.

Everyone is manager - after organizational restructuring, employees may set up project teams depending on their needs and be in charge of executing and managing various projects. In the past, only managers could do project management. For now, every employee gets an opportunity for taking responsibilities.

b). The implications in strategy

Step by step - the OR strategy is, in the first phase, to initiate an indirect layoff (because employees who do not agree with the company's core values will quit) and to retain employees who agree with corporate philosophy during organizational restructure period.

Enhancement of product value – the company's business transforms through the organizational reengineering so as to promote the added value or products. At the same time, the company's business scale extends considerably with steady growth in profit since every employee plays an active role of manager and participates actively in handling business.

Setup of a flexible working team - after OR, every employee is responsible for outsourcing engineering works and project management.

Creation - after experiencing the managerial problems, a small company can entirely understand that an enterprise can only survive in a highly competitive environment and maintain its perpetual management by continuing innovation in product, business process and organization.

Another research [9] supports what other studies on information technology in small and medium-sized firms have already suggested: SMEs are especially fragile with regards to the effective use of technology. If they are to benefit from emerging technologies, they must proceed more rigorously. The intuitive and often informal nature of small business management is shown by the relatively low level of conformity with BPR principles, and the analysis [9] also showed that this variable has a greater impact on success in small firms than in large firms. As BPR is still new for many organizations, SME managers should seek information and training on this approach by attending seminars or obtaining external consulting advice. This would help them to better understand the nature of the organizational change implied by BPR, and thus have more control over the change process itself.

In addition, the limited diversity of the human resources participating in BPR projects exerts a negative impact on the outcome. As these projects often lead to drastic changes in the way business is conducted, it is of the utmost importance for SMEs to involve a representative cross-section of employees in such projects [9]. Their diverse experience, viewpoints, and ideas are factors that will increase the probability of success. In turn, owner-managers must visibly demonstrate a high level of interest in and support for the project. This includes

continuous encouragement and supervision of the project leader and team, financial support when necessary, and open communication with employees.

The same study [9] confirms that the level of organizational support, conformance to the principles of BPR, and the diversity of the human resources participating in the project condition the attainment of advantages such as increases in productivity, higher quality of goods and services offered, and cost reductions.

4. CONCLUSIONS

Organizational restructuring can be applied to SMEs; success in business does not depend on how highly educated a person is. It just depends on whether the company's leadership has the determination to implement the restructuring. Before taking action in organizational restructuring, one needs to wait until the appropriate time comes. Thus, the risk of failure can be reduced to a minimum; this is the key to success in organizational restructuring. Another important factor for the manager is to direct the whole process of restructuring in person.

To conclude, it is important to reiterate that BPR is profitable for both SMEs and large enterprises. Although BPR projects were often implemented under conditions that were far from ideal, small and medium-sized firms nevertheless seemed to draw significant advantages from them. Thus, improving the organizational, managerial, and technical dimensions related to BPR project success can be viewed as opportunities for those wishing to outperform their competitors. On the other hand, the impact of conformance and resource diversity is more important in SMEs than in large enterprises.

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