



## Exploring critical success factors for business re-engineering processes implementation: A review of literature

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### Abstract

The paper is a review of critical success factors for Business Re-Engineering Processes Implementation. Business process re-engineering (BPR) has emerged as a crucial strategy for organizations seeking to adapt to rapidly changing business environments and improve operational efficiency. Successful implementation of BPR projects is contingent upon a comprehensive understanding of the critical success factors (CSFs) that drive their effectiveness. This literature review aims to explore and synthesize the key CSFs for business re-engineering processes implementation by analyzing a broad range of academic and industry sources. The review begins by providing an overview of the evolution of BPR, its rationale, and its significance in contemporary business contexts. Subsequently, it delves into an extensive examination of the literature to identify and categorize the CSFs that have been consistently highlighted in research and practical applications. These CSFs encompass various dimensions, including organizational culture, leadership commitment, stakeholder involvement, change management, information technology adoption, and performance measurement. Furthermore, the review explores the interrelationships and dependencies among these CSFs, highlighting the need for a holistic and integrated approach to BPR implementation. It also discusses the evolving role of technology, especially emerging trends such as artificial intelligence and robotic process automation, in influencing the success of BPR initiatives. By synthesizing and synthesizing the existing literature, this review aims to provide valuable insights for practitioners and researchers involved in BPR projects. It underscores the importance of considering multiple CSFs and their interactions when planning and executing BPR initiatives, offering a foundation for developing effective strategies and frameworks to maximize the likelihood of successful outcomes. Additionally, it identifies gaps in the literature and suggests directions for future research, encouraging further exploration of this critical area in the field of business process management.

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### Introduction

#### Overview of the Evolution of Business Process Reengineering (BPR), Its Rationale, and Its Significance in Contemporary Business Contexts

Business Process Reengineering (BPR) is a management approach that emerged in the early 1990s as a response to the need for radical and fundamental changes in business processes. BPR's evolution over the years reflects its ability to adapt to the changing landscape of contemporary business environments. This article traces the evolution of BPR, elucidates its rationale, and underscores its enduring significance in modern business contexts.

### Evolution of Business Process Reengineering

The concept of process improvement has roots dating back to Frederick Taylor's scientific management principles in the early 20th century. BPR, as a distinct concept, gained prominence in the late 1980s and early 1990s, primarily through the works of Michael Hammer and James Champy (Hammer & Champy, 1993) <sup>[6]</sup>.

**First Wave BPR:** Early BPR focused on radical process redesign and reorganization, often leading to workforce reductions. The rationale was to eliminate inefficiencies, reduce costs, and improve overall organizational performance (Hammer & Champy, 1993) <sup>[6]</sup>.

**Second Wave BPR:** In the late 1990s and early 2000s, BPR evolved to emphasize customer-centricity and value creation. This wave sought to align processes with customer needs, enhance agility, and drive innovation (Davenport & Short, 1990) <sup>[4]</sup>.

**Digital Transformation Era:** With the advent of digital technologies and the internet, BPR evolved again to incorporate digitalization and automation. Process optimization and digitization became critical to harness the potential of emerging technologies (Harvard Business Review, 2019) <sup>[7]</sup>.

### Rationale for Business Process Reengineering:

- Enhanced Efficiency and Cost Reduction:** BPR's primary rationale is the pursuit of operational efficiency, reduced costs, and enhanced productivity (Hammer & Champy, 1993) <sup>[6]</sup>.
- Competitive Advantage:** BPR enables organizations to gain a competitive edge by streamlining processes and delivering value to customers more effectively (Davenport & Short, 1990) <sup>[4]</sup>.
- Adaptability to Change:** BPR's adaptability makes it an ideal approach for organizations facing dynamic and rapidly evolving business environments (Davenport, 1993).
- Customer-Centricity:** Modern BPR emphasizes customer-centricity, aligning processes with customer needs and expectations (Grover *et al.*, 1995) <sup>[9]</sup>.

### Significance in Contemporary Business Contexts

- Digital Transformation:** BPR remains relevant as organizations undergo digital transformation, using it to redesign processes for digital integration and automation (Fitzgerald & Murphy, 1996).
- Agility and Innovation:** BPR supports agility and innovation, enabling organizations to respond to changing market conditions and disrupt conventional business models (Harvard Business Review, 2019) <sup>[7]</sup>.
- Sustainability:** BPR can be leveraged for sustainability efforts, aligning processes with eco-friendly practices and responsible business operations (Zhang *et al.*, 2015).
- Globalization:** In the era of globalization, BPR helps organizations streamline cross-border processes, enhance supply chain efficiency, and expand market reach (Burlton, 2001) <sup>[2]</sup>.

Business Process Reengineering has evolved significantly since its inception, adapting to the changing needs and challenges of contemporary business contexts. Its enduring significance lies in its ability to drive efficiency, innovation, and competitiveness while aligning processes with evolving

customer expectations and technological advancements. In today's dynamic business environment, BPR continues to be a valuable strategy for organizations seeking to thrive and remain resilient.

### Critical Success Factors for Business Re-engineering Process Implementation

Business Re-engineering, a strategic approach focusing on the redesign and optimization of business processes, has gained immense prominence as organizations seek to stay competitive and adaptive in a rapidly evolving business landscape. Implementing re-engineering processes effectively is contingent on identifying and addressing Critical Success Factors (CSFs). This article aims to explore and synthesize the key CSFs for business re-engineering process implementation through an extensive review of academic and industry literature. The CSFs for Business Re-engineering Process Implementation include the following:

- Leadership Commitment:** Strong leadership commitment is a foundational CSF (Hammer & Champy, 1993) <sup>[6]</sup>. Leaders must champion the re-engineering effort, provide clear direction, and allocate necessary resources (Davenport & Short, 1990) <sup>[4]</sup>.
- Clear Objectives and Communication:** Defining clear objectives and communicating them throughout the organization is paramount (Burlton, 2001) <sup>[2]</sup>. Employees should understand the purpose, benefits, and expectations of the re-engineering initiative (Kotter, 1996) <sup>[8]</sup>.
- Process Analysis and Redesign:** In-depth analysis of existing processes and their redesign is fundamental (Davenport & Short, 1990). Organizations must identify bottlenecks, inefficiencies, and opportunities for improvement (Alter, 1996) <sup>[1]</sup>.
- Technology Integration:** Technology is often a catalyst for re-engineering (Grover *et al.*, 1995) <sup>[9]</sup>. Careful selection and integration of appropriate technology solutions are essential for process enhancement (Kettinger & Grover, 1995) <sup>[9]</sup>.
- Employee Involvement and Training:** Engaging employees in the re-engineering process is crucial (Champy, 1995). Providing adequate training to equip employees with the skills required to adapt to new processes is vital (Hammer & Stanton, 1995) <sup>[10]</sup>.
- Performance Measurement:** Implementing a robust performance measurement system aids in tracking progress (Neely *et al.*, 2002) <sup>[12]</sup>. Key performance indicators should align with organizational goals and be continuously monitored (Inmon *et al.*, 1997) <sup>[11]</sup>.

The synthesis of these key CSFs reveals a holistic approach to business re-engineering process implementation. Leadership commitment and clear communication establish the foundation for successful execution. Process analysis and redesign, often coupled with technology integration, drive the substantive changes necessary for improvement. Employee involvement, training, and performance measurement ensure that the transformation aligns with organizational goals and remains on course.

In the rapidly evolving business landscape, organizations must embrace change and continually seek ways to enhance their operations. Business re-engineering processes offer a potent means to achieve these objectives. By identifying and addressing the Critical Success Factors outlined in this

article, organizations can increase the likelihood of successful business re-engineering implementation. These CSFs serve as guiding principles for navigating the complexities of re-engineering initiatives, ultimately leading to improved efficiency, enhanced competitiveness, and sustained growth.

Critical success factors (CSFs) for BRP implementation have been extensively discussed in the literature, with evidence of their impact on performance. However, many large companies seeking competitive advantage still lack a full understanding of the success factors that drive successful BRP implementation (Ahmad, Francis, & Zairi, 2007). Re engineering is undoubtedly essential for firms aiming to succeed in the modern, globalized economy. The BRP elements are closely linked to a firm's mission and strategic objectives. While the mission and goals focus on the aims and desired outcomes, BRP factors concentrate on the most crucial elements and the best ways to achieve those goals.

BRP factors play a crucial role in aligning and planning with an organization's strategic direction. Identifying the most important factors is essential for organizational success, and various BRP factors have been developed and validated through studies across different industries such as manufacturing, education, and services. These factors represent key areas of activity that require constant and careful attention from management. It is vital to recognize that BRP factors may differ depending on the industry and the organization's position within that industry. Understanding the factors related to BRP implementation and organizational performance improvement is of utmost importance.

The existing literature on BRP studies can be categorized into two main viewpoints. The first group of scholars believes that BRP is a remedy for addressing turbulent market changes, customer demands, and competition (Hammer & Champy, 2009). On the other hand, the second group of scholars holds the view that BRP has not lived up to its expectations. According to (Al-Mashari, Irani, & Zairi, 2001), the average success rate of implementing BRP in developed countries, especially Multi-National Corporations, was found to be around 55 percent, with 61 percent success in the USA and 49 percent in Europe. Most studies on BRP have centered on the manufacturing industry, with relatively fewer studies conducted in the oil industry. Thus, generalizing the success rate of BRP can be risky due to potential cross-national differences, such as cultural beliefs, norms, and values. The reengineering process challenges the entire set of values and beliefs within an organization, making it a challenging undertaking (Hammer & Champy, 1993) <sup>[6]</sup>. The lack of empirical studies with rigorous methodologies covering various aspects of BRP implementation has been acknowledged by several authors (Ahmad, Francis, & Zairi, 2007) (Bradford & Burke, 2018).

In previous research on BRP factors, (Addolvand, Albadvi, & Fedowski, 2008) identified six organizational BRP factors for implementation. These factors include process change, accomplishment of goals and objectives, implementation problems, derived benefits, and organizational performance. The study also pointed out success factors for implementation, such as external factors, employee empowerment, operational factors, communication, method and tools, and leadership.

Additionally, (Addolvand, Albadvi, & Fedowski, 2008) reported six predictors for BRP: strategy, management

commitment, IT, customer focus, continuous improvement, and performance outcomes. In another study by (Evdokimova & Llyin, 2016), ten dimensions were presented to measure BRP across five themes: strategic approach, performance measurement, creating business process architecture, human and organizational factors, and the role of IT.

Attaran & Attaran (2018) Proposed seven success factors based on a comprehensive review of existing literature and previous surveys. These factors are as follows: top management commitment, education and training, teamwork, effective project management of BRP, employee cooperation, IT support, and measurable results. Meanwhile, Anand, Chandrashekar, & Narayanamurthy (2014) identified seven crucial success factors for BRP implementation in higher educational institutions. These factors include teamwork, fostering a quality culture, implementing a quality management system, rewarding initiatives, managing change effectively, adopting a less bureaucratic and participatory management style, and ensuring adequate financial resources.

The lessons learned from BRP approaches were examined through case studies in various studies. In one such study, Anand, Chandrashekar, & Narayanamurthy (2014) classified the critical success factors (CSFs) of BRP implementation into five dimensions, each with its set of measurable items. The five latent constructs are as follows: changing management, management competence, organizational structure, BRP project management, and IT infrastructure.

Hence, in the current study, BRP factors have been tailored to fit the specific scope of the oil industry, aligning with previous research (Al-Mashari, Irani, & Zairi, 2001). These factors are considered as independent variables and consist of the following eight elements: 1) Change Management, 2) Top Management Commitment, 3) Less bureaucratic and flatter organizational structure, 4) Project Management, 5) Customer Focus, 6) Effective process redesign, 7) Adequate financial resources, and 8) IT infrastructure.

### **Identified Gaps in the Literature and Suggestions for Future Research in Business Process Reengineering (BPR)**

While the literature on Business Process Reengineering (BPR) is extensive, several gaps remain in our understanding of this critical area in the field of business process management. Identifying these gaps is essential for researchers to chart the future course of BPR research. Here, we highlight some of the key gaps and offer suggestions for future research directions, promoting further exploration in this field.

#### **Integration of Emerging Technologies**

**Gap:** Although there is a growing emphasis on the integration of emerging technologies like artificial intelligence, blockchain, and Internet of Things (IoT) in BPR, there is a limited understanding of the challenges, opportunities, and best practices associated with their implementation.

**Future Research Direction:** Researchers can investigate how emerging technologies impact BPR methodologies, change management strategies, and overall process outcomes. Exploring ethical and security concerns related to technology integration is also crucial.

### Change Management in BPR

Gap: While change management is recognized as a critical aspect of BPR success, there is a lack of comprehensive models and frameworks that specifically address the intricacies of managing change in the context of BPR projects.

Future Research Direction: Researchers can develop and validate tailored change management frameworks for BPR initiatives. Investigate the role of leadership, communication, and employee engagement in facilitating change during BPR.

### Sustainability and Environmental Considerations

Gap: Despite the increasing importance of sustainability, there is limited research on how BPR can be leveraged to align processes with environmental and sustainability goals.

Future Research Direction: Researchers can explore the relationship between BPR and sustainability, including the design of green processes, the reduction of carbon footprints, and the incorporation of circular economy principles.

#### Cross-Cultural BPR:

Gap: Globalization has made cross-cultural BPR projects more common, yet there is a dearth of research on how cultural differences affect BPR outcomes and the development of culturally sensitive BPR methodologies.

Future Research Direction: Investigate the impact of culture on BPR project success and develop guidelines for conducting cross-cultural BPR projects. Analyze how cultural factors influence the acceptance of BPR-driven changes among employees.

### BPR in Small and Medium-sized Enterprises (SMEs)

Gap: Existing BPR research predominantly focuses on large organizations, leaving a gap in our understanding of how SMEs can effectively implement BPR given their resource constraints and distinct challenges.

Future Research Direction: Researchers can explore BPR adoption and adaptation in SMEs, addressing their unique needs and constraints. Develop strategies tailored to SMEs for implementing cost-effective BPR initiatives.

### Long-Term Impact Assessment

Gap: Many BPR studies focus on immediate outcomes, but there is a limited understanding of the long-term sustainability and adaptability of re-engineered processes.

Future Research Direction: Conduct longitudinal studies to assess the long-term impact of BPR initiatives on organizational performance, including how well re-engineered processes adapt to changing business environments.

### Ethical and Social Implications

Gap: BPR often involves significant changes in job roles and responsibilities, which may have ethical and social implications, including job displacement and employee well-being.

Future Research Direction: Investigate the ethical considerations of BPR, such as fairness in workforce changes and the impact on employee job satisfaction. Explore the broader societal implications of BPR on employment and communities.

### Conclusion

In conclusion, while Business Process Reengineering has been extensively studied, there remain several gaps in the

literature that warrant further investigation. Researchers have an opportunity to contribute to the field by addressing these gaps, leading to a more nuanced and practical understanding of BPR and its applications in contemporary business contexts.

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