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**The Impact of Business Process Reengineering Implementation on Operational
Problems in Private Sector Organizations in the Kingdom of Saudi Arabia**

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قَالَ اللَّهُ رَبِّ الْعَالَمِينَ
الَّذِي خَلَقَ

Dedication

To those who instilled values in me and provided me with wisdom,

To those whose prayers were the secret to my success and my support throughout all stages
of my life,

To my generous parents, I dedicate the fruits of my labor and work, in gratitude and
appreciation.

To those who supported and encouraged me in my academic career,

To my brothers, friends, and colleagues,

To all of you, I dedicate this humble work, in gratitude for all your sincere support.

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Abstract

This study aimed to examine the impact of Business Process Reengineering (BPR) implementation on operational problems in private sector organizations in the Kingdom of Saudi Arabia. Using a quantitative research methodology, data were collected through structured questionnaires distributed to a sample of 100 participants actively involved in BPR initiatives. The study employed reliability analysis, Chi-Square tests, and One-Way ANOVA to analyze the relationships between key variables such as managerial support, technology adoption, error rates, and overall effectiveness of BPR. The findings revealed that adequate organizational support, effective use of modern technology, and efforts to reduce operational errors significantly enhance the success of BPR initiatives. However, challenges such as employee resistance and difficulties in changing organizational culture were identified as major barriers to implementation. Based on these results, the study recommends that private sector organizations in Saudi Arabia prioritize strong leadership commitment, invest in advanced technological tools, and adopt comprehensive change management strategies to address cultural resistance. Continuous monitoring and evaluation of BPR processes are also advised to ensure ongoing improvements and sustainability. These recommendations provide a practical roadmap for organizations seeking to improve operational efficiency and customer satisfaction through successful BPR implementation.

Keywords: Business Process Reengineering, Operational Problems, Private Sector, Saudi Arabia, Technology Adoption, Organizational Support, Change Management

Chapter One

Introduction

In today's hyper-competitive global business environment, organizations are increasingly driven to seek innovative strategies that enhance efficiency, reduce operational inefficiencies, and deliver sustained competitive advantages. One of the most transformative strategies that has gained traction across various industries is Business Process Reengineering (BPR). BPR seeks to produce significant gains in key performance metrics like cost, quality, service, and speed. It is based on a fundamental rethinking and radical restructuring of basic business processes. Adopting BPR has become a crucial reaction to internal and external change-related challenges in the context of private sector enterprises in the Kingdom of Saudi Arabia (KSA). Globalization, market liberalization, quick technical development, and rising customer demands for quicker and better services are some of these factors. The private sector is anticipated to become more and more important in diversifying the Saudi economy and boosting its global competitiveness as it goes through a major transition under the Vision 2030 framework. In light of this, commercial firms looking to realign their operational plans and get rid of long-standing inefficiencies now find that BPR is a crucial instrument. (Amoo, 2024).

The operating environment of private sector companies in Saudi Arabia is characterized by a number of difficulties, from inflexible hierarchical structures and antiquated administrative procedures to a lack of technological integration and change-resistant employees. These operational issues impair organizational responsiveness and agility in addition to stifling innovation. By promoting a thorough redesign of current processes, the removal of non-value-adding tasks, and the adoption of a customer-centric approach to operations, BPR provides a convincing answer to these issues. Nevertheless, despite the well-established theoretical advantages of BPR, its actual application sometimes faces a number of difficulties. These could include poor training and change management techniques, a lack of stakeholder participation, and a misalignment between plan and implementation. Furthermore, the successful implementation of BPR approaches may be made more difficult by cultural elements unique to the Saudi environment, such as organizational resistance to radical change, hierarchical decision-making, and the desire for established working practices. (Aldogiher, 2025).

In order to develop more effective transformation and capacity building initiatives, it is imperative to investigate how operational issues in Saudi private sector firms are impacted by BPR implementation. In this situation, the capacity of companies to handle change holistically is just as important to the success of BPR projects as the technical redesign of processes. This entails coordinating the commitment of the leadership, encouraging an innovative and open culture, empowering staff, and making sure that the

accompanying IT systems are deployed robustly. Furthermore, a detailed knowledge of how BPR affects companies of different sizes and sectors differently is necessary due to the diversity of the Saudi private sector, which ranges from major family-owned conglomerates to growing small and medium enterprises. Examining these dynamics reveals the elements that either help or hinder the successful implementation of BPR and provides insightful information about the operational reality on the ground. (Fetais, 2022).

The purpose of this study is to thoroughly examine how the application of BPR affects operational issues in private sector companies in the Kingdom of Saudi Arabia. The study will add to the expanding corpus of research on process innovation in emerging economies by reviewing case studies, looking at organizational reactions, and assessing performance consequences. By identifying best practices, typical problems, and contextual enhancers of successful BPR execution, it also aims to close the gap between theory and practice. By doing this, the study hopes to assist Saudi companies in negotiating the challenges of operational change and make a significant contribution to the region's larger conversation on sustainable business excellence. (Aguilera, 2023).

Study Problem

Business Process Reengineering (BPR) is becoming more and more popular as a strategic tool for improving organizational performance and operational efficiency, but many private sector organizations in the Kingdom of Saudi Arabia still struggle to achieve the desired results from BPR implementation. By revamping essential business processes, BPR promises radical gains, but in Saudi private firms, its implementation frequently fails because of organizational resistance, contextual complexity, and a misalignment between organizational capabilities and process modifications. The fundamental issue is the discrepancy between the theoretical BPR models—which were mostly created in Western commercial contexts—and their actual implementation in Saudi Arabia's distinct sociocultural, economic, and legal setting. This disparity results in incomplete or unsuccessful implementations, which may make operational problems worse rather than better. Many businesses start BPR projects without fully comprehending the extent of change needed or the organizational preparedness needed for success. Because of this, operational issues like inefficiency, poor communication, work duplication, and delayed service delivery frequently continue or get worse. Thus, the inefficiency of BPR's implementation in Saudi private sector organizations is the study's main issue, undermining its ability to rectify long-standing operational shortcomings and impeding the achievement of strategic transformation objectives. (Gkrimpizi, 2023).

Problems Arising from the Main Study Problem

1. Organizational resistance to change is one of the main issues that results from poor BPR implementation. Passive or active resistance is a result of middle managers' and employees' frequent fears of job loss, role instability, or higher workloads. This opposition prevents new procedures from being fully adopted, which results in disjointed execution and little operational improvement.
2. The sophisticated IT infrastructure needed to support BPR projects is lacking in many Saudi private enterprises. Operational bottlenecks and inefficiencies arise when technology is not completely incorporated into redesigning processes, leaving gaps between automated and human activities.
3. Although BPR projects call for new competences, many firms do not provide their staff with the required training or tools. This compromises the quality and consistency of operations by causing misunderstandings and mistakes in process execution.
4. BPR tactics and the overarching company vision are frequently out of sync. BPR initiatives that are conducted independently of the larger business plan lack the guidance and backing necessary to provide long-term effects, leading to surface-level adjustments that ignore fundamental operational problems..
5. Innovation and quick process changes are discouraged by the conventional bureaucratic and hierarchical mentality that permeates many Saudi businesses. These kinds of arrangements slow down the adoption of new, redesigned procedures and obstruct agile decision-making.
6. It becomes challenging for organizations to determine whether BPR initiatives are producing the desired outcomes if appropriate performance monitoring and evaluation mechanisms are not in place. The lack of feedback loops may result in poor choices and lost chances for ongoing development. (Adebayo, 2022).

Study Questions

Main Study Question:

- How does the implementation of Business Process Reengineering impact the resolution of operational problems in private sector organizations in the Kingdom of Saudi Arabia?

Sub-Questions:

1. To what extent are Business Process Reengineering principles understood and effectively applied within private sector organizations in Saudi Arabia?
2. What are the most common operational problems faced by Saudi private sector organizations prior to BPR implementation?
3. How does BPR implementation affect employee performance, communication, and workflow efficiency in these organizations?
4. What organizational, cultural, or technical barriers hinder the successful implementation of BPR in the Saudi private sector?
5. What strategies or critical success factors contribute to the effective resolution of operational problems through BPR in Saudi organizations?

Study Importance**- The Importance of the Study – Scientific Perspective**

This study has substantial scientific value since it adds to the expanding corpus of research on Business Process Reengineering (BPR) by concentrating on private sector companies in the Kingdom of Saudi Arabia, an area that is still largely unexplored. The research offers empirical insights that aid in the improvement of theoretical models and frameworks pertaining to organizational transformation, efficiency, and innovation by examining the impact of BPR on operational issues. Furthermore, by analyzing Saudi Arabian-specific cultural, legal, and economic aspects, the study fills in existing knowledge gaps and advances worldwide comprehension of how BPR methods can be successfully adapted to a variety of corporate contexts. (Aljazzi, Business Process Re-Engineering: A Literature Review-Based Analysis of Implementation Measures, 2022).

- The Importance of the Study – Practical Perspective

Practically speaking, this report provides insightful advice for Saudi Arabian corporate executives, consultants, and legislators looking to improve operational performance through BPR. The research gives decision-makers practical insights to streamline processes, cut down on inefficiencies, and enhance service delivery by identifying particular operational difficulties and assessing how BPR implementation

might address them. The results of this study can help the private sector align with state goals, promote innovation, and boost competitiveness in both regional and global markets as Saudi Arabia continues its economic transition under Vision 2030. (Jaradat, 2024).

Study Objectives

Main Objective of the Study:

- To examine the impact of Business Process Reengineering (BPR) implementation on operational problems in private sector organizations within the Kingdom of Saudi Arabia, with the aim of identifying the extent to which BPR contributes to improving operational efficiency and organizational performance.

Sub-Objectives:

1. To identify the most common operational problems faced by private sector organizations in Saudi Arabia prior to BPR implementation.
2. To assess the effectiveness of BPR in addressing and resolving specific operational inefficiencies.
3. To analyze the role of organizational culture and leadership in the success of BPR initiatives.
4. To evaluate the challenges and barriers encountered during the implementation of BPR in the Saudi private sector.
5. To provide practical recommendations for enhancing BPR strategies to better suit the operational context of Saudi Arabian private organizations.

Study Hypotheses

Main Hypothesis of the Study:

- The implementation of Business Process Reengineering (BPR) has a significant positive impact on reducing operational problems in private sector organizations in the Kingdom of Saudi Arabia.

Sub-Hypotheses:

1. BPR implementation significantly reduces process inefficiencies such as delays, redundancies, and resource waste in Saudi private sector organizations.
2. BPR has a positive effect on improving organizational responsiveness and adaptability to market changes.

3. The success of BPR initiatives is significantly influenced by leadership commitment and employee involvement.
4. Organizations that effectively implement BPR experience noticeable improvements in service quality and customer satisfaction.
5. The presence of clear strategic planning and adequate technological support enhances the effectiveness of BPR in solving operational issues.

Scientific Theory Used to Prepare Research

- Business Process Reengineering Theory

Business Process Reengineering (BPR), which was first developed by Michael Hammer and James Champy, is the fundamental scientific theory that guides this investigation. According to BPR theory, business processes should be drastically redesigned in order to significantly increase organizational performance, especially in areas like operational speed, quality improvement, and cost reduction. BPR stresses a fundamental rethinking of processes to get rid of inefficiencies and redundancies, in contrast to standard incremental change approaches. To realign processes with strategic objectives, this strategy necessitates a thorough analysis of organizational structures, workflows, and technology integration. In order to demonstrate how private sector companies in Saudi Arabia can achieve greater efficiency and competitiveness, this study uses BPR theory as the conceptual framework to examine how the execution of reengineering projects affects operational issues. (Bhaskar, 2018).

- Complementary Organizational and Change Management Theories

To enhance the analysis, the study incorporates ideas from organizational and change management theories in addition to the fundamental BPR theory. Lewin's Change Management Model provides insight into the behavioral and cultural changes required for successful BPR adoption. It views change as a process of unfreezing old behaviors, implementing change, and then refreezing new practices. Furthermore, according to contingency theory, organizational culture, leadership commitment, and the external business climate are only a few examples of the internal and external elements that affect how effective BPR is. In the Saudi private sector, where socioeconomic, cultural, and regulatory factors impact the reengineering process, this viewpoint is especially pertinent. By combining these ideas, the study takes into consideration the complex difficulties of putting BPR into practice and offers a sophisticated

comprehension of the ways in which different contextual elements affect the effectiveness of operational enhancements. (Rosenbaum, 2018).

Chapter Two

Previous Studies

Introduction

A key component of this study is Chapter Two, which establishes the theoretical and conceptual framework required to comprehend and assess how the application of Business Process Reengineering (BPR) affects operational issues in private sector companies in the Kingdom of Saudi Arabia. The main variables of the study, the independent and dependent variables, will be thoroughly explained in this chapter, making it clearer which particular aspects are being examined and how they relate to one another. The degree to which companies restructure their key business processes in order to attain notable performance enhancements is known as the independent variable, BPR implementation. Operational problems, the dependent variable, includes a variety of inefficiencies and difficulties that companies encounter on a daily basis, including delays, redundancies, low productivity, and quality concerns. The reader can understand how BPR serves as a change agent and how it can potentially alleviate operational challenges by carefully identifying and distinguishing these characteristics in this chapter.

The theoretical underpinning supporting the research will be presented in this chapter. By including pertinent ideas and models pertaining to BPR, organizational transformation, and operational management, the theoretical framework serves as the intellectual scaffolding. It offers a prism through which one can comprehend, understand, and evaluate critically the dynamics of BPR implementation and how it affects operational concerns. This framework is crucial for directing the research design and analysis in addition to providing a solid academic foundation for the investigation. The study will be able to place findings into a larger scientific discourse by including ideas like contingency theory, change management theories like Lewin's model, and Hammer and Champy's original BPR model. The research's methodological soundness and theoretical coherence are guaranteed by this integration, which raises the validity and relevance of its findings.

Chapter Two will provide an in-depth analysis of prior empirical research on BPR implementation and operational performance in both global and regional contexts, in addition to elucidating factors and theoretical underpinnings. This evaluation of the literature will point out important patterns, achievements, and shortcomings in earlier studies, emphasizing how these revelations influence the methodology of the current investigation. Crucially, the chapter will also discuss the current research vacuum about the impact of BPR in the Saudi private sector, which is still poorly understood despite the swift changes in the economy brought about by Saudi Vision 2030. Chapter Two will illustrate the significance and relevance of the study by placing the current research within this context and highlighting how its conclusions might be useful to businesses looking to improve operational efficiency through

reengineering projects. The overall goal of this chapter is to provide a thorough theoretical and empirical foundation that upholds the goals of the study and establishes the groundwork for further examination.

Dependent and Independent Variables

- Dependent Variable: Business Process Reengineering (BPR)

Business Process Reengineering (BPR) is the dependent variable in this study. Its implementation has an impact on operational issues in private sector firms in the Kingdom of Saudi Arabia, which is the main focus of the investigation. In order to achieve notable improvements in key performance metrics including cost, quality, speed, and customer happiness, business process rethinking and radical redesign, or BPR, is used. BPR is a dependent variable that is affected by a number of organizational environment elements that either help or impede its effective implementation. Organizations' ability to reorganize processes, incorporate contemporary technologies, and handle employee change will determine how well BPR is implemented. In this regard, business process reengineering (BPR) is not merely a theoretical idea; rather, it is a real approach to addressing operational inefficiencies that commonly afflict private sector companies, such as process delays, redundancies, and errors.

Seeing BPR as the dependent variable draws attention to the fact that a number of crucial organizational inputs or conditions must be met for it to be implemented successfully. Through process simplification, waste reduction, and flexibility enhancement, BPR can revolutionize operational capabilities when implemented properly. But because BPR entails significant organizational change, it frequently encounters opposition, technical difficulties, and resource limitations, all of which can have an impact on results. Thus, by examining BPR as a dependent variable, it is possible to investigate the ways in which specific independent variables—like sufficient organizational support, the accessibility and utilization of technology, and the current rate of operational errors—affect its execution and eventual success. This viewpoint highlights the fact that BPR results are the consequence of intricate relationships within the organizational ecosystem rather than being isolated occurrences. (Nkuruziza, 2023).

- Independent Variables: Adequate Support, Technology, and Error Rate

The study's independent variables—error rate, technology, and sufficient support—all reflect elements that affect how well BPR is implemented in private sector companies. The level of dedication and resources offered by organizational leadership, such as monetary investment, training initiatives, communication plans, and staff engagement, is referred to as adequate support. Because BPR projects frequently call for major adjustments to long-standing workflows and behaviors, this support is essential. Overcoming resistance and cultivating a change-receptive culture depend on leadership endorsement

and clear strategic direction. BPR initiatives might not take off without sufficient backing, which could lead to an insufficient or inefficient process redesign.

Another important independent variable that has two roles in BPR is technology. On the one hand, contemporary technology serves as an enabler, offering the instruments and frameworks required to effectively rethink and automate business procedures. Technologies like digital communication platforms, data analytics, and enterprise resource planning (ERP) systems can greatly increase process accuracy, speed, and departmental integration. However, BPR might be hampered by inadequate technology or poorly linked systems, which can lead to bottlenecks or make workflow realignment more difficult. Therefore, the extent and effectiveness of BPR initiatives are strongly impacted by the quality and appropriateness of technology that is available within a business.

The frequency and seriousness of operational errors and inefficiencies that existed prior to BPR deployment are reflected in the third independent variable, error rate. BPR seeks to solve the underlying process defects, redundancy, or lack of standardization that are frequently indicated by high mistake rates. This variable is important because companies that make mistakes a lot could be more inclined to try drastic process improvements, but they might also encounter more difficulties when putting those changes into practice. Knowing the baseline error rate provides a benchmark for gauging change after implementation and helps put the operational issues that BPR aims to address into perspective. (Makudza, 2019).

- Relationship Between Dependent and Independent Variables

Adequate support, technology, and mistake rate are independent factors that have a dynamic and interdependent interaction with the dependent variable, business process reengineering. The atmosphere and resources required for BPR to be successfully planned, communicated, and carried out are created by adequate support from management and leadership. It influences employee openness to change and organizational preparedness, both of which are essential for getting over obstacles in reengineering initiatives. Even cutting-edge technology or a strong desire to correct operational mistakes might not result in excellent BPR outcomes without this fundamental backing.

In this interaction, technology plays a crucial role as a facilitator, making it possible to restructure procedures in a way that is more precise, adaptable, and efficient. The drastic process changes required by BPR require firms to automate repetitive operations, combine disparate functions, and obtain real-time

data insights—all of which are made possible by adequate technology infrastructure. As a result, having the right technology increases the benefits of assistance and lowers the complexity of reengineering activities.

In the meantime, the error rate functions in this relationship as both a trigger and a measure. A high error rate emphasizes the need for fundamental change and strengthens the case for applying BPR. It is anticipated that the mistake rate will decrease after BPR as procedures become more efficient and managed. Even a high initial error rate, however, could not ensure successful BPR adoption if the independent variables of support and technology are deficient, as the organization might find it difficult to effectively address the underlying causes of errors. (George, 2024).

Previous Studies

The Saudi government is going through a transitional phase. Business process reengineering, or BPR, may be crucial when assessing this conversion. BPR techniques provide methods for optimizing resource use while maintaining high-quality services. The study's objective is to look into how BPR is being used in the Saudi public sector. (Qureshi, 2016). A knowledge-based strategy for change transformation is proposed. The proposed solution is validated by a survey. The results of the study show that Saudi government agencies are capable of carrying out the BPR successfully, especially when knowledge management is applied and the BPR movement is started on a small scale.

To gain a competitive advantage and perform at their best, public organizations are striving to enhance their procedures. To far, businesses have seen significant benefits from implementing Business Process Re-engineering (BPR). Despite their seeming success, many BPR initiatives in the United Arab Emirates' (UAE) public sector fail to meet their objectives. Services in general and governmental services in particular are essential to the open and growing economies of many developing countries, including the United Arab Emirates. The goal of the investigation into (AlGumlasi, 2023) is to determine the key elements that make BPR in UAE public organization initiatives successful. Six BPR subject matter experts (SMEs) participated in semi-structured interviews to provide input on BPR practices and obstacles in the United Arab Emirates.

Furthermore, the study gathered and examined the answers from 119 experts working for BPR public organizations in the United Arab Emirates. According to the statistics, between 60 and 70 percent of BPR projects are successful. Additionally, confirmatory model analysis shows that IT infrastructure,

process owners, and performers are the most crucial elements, especially for smaller businesses. Decision makers will get valuable insights from the findings on how to improve the success rate of BPR programs in the United Arab Emirates, particularly by allocating more funds to the areas that are most critical. By making this investment and properly implementing the recommendations, they will be able to save expenses while still meeting their quality and productivity goals.

Business process reengineering, or BPR, is one strategy that aims to implement a major change that will enable the organization reach new heights and reach its full potential. A failure rate of up to 70% has been reported in some research, despite the fact that other studies have recorded a large number of BPR project success stories. In order to investigate the reasons behind BPR project failure, we were able to compile a thorough list of ninety-one (91) potential causes using secondary data from previous studies that were relevant to our investigation. These components were repeated in a Likert-type questionnaire to gather respondents' perspectives and allow the researcher to do causal analysis.

The data collected for the empirical field study from the Kingdom of Bahrain and the Kingdom of Saudi Arabia, which accounted for 192 respondents, varied by process, industry, managerial position, business size, and other parameters. According to the report, poor reengineering of IS legacy systems, poor process redesign, poor IT investment & sourcing choices, poor training, and poor consultant utilization are the main causes of BPR project failure. When combined, these variables can explain around 69.8% of the variance in BPR project failure. IBM-SPSS software was used for the data analysis portion of this project. (Al-Omran, 2020).

The goal of accounting is to keep up with the quick advances in other fields and technologies. Thus, accounting has included common concepts from other fields, such as economic intelligence and re-engineering, to support the operations of economic units. This approach is used to design and restructure the accounting information system to take into account advancements in information technology and the knowledge era. This study aims to shed light on the stages of re-engineering accounting information systems in economic units and the difficulties they face in order to facilitate the deployment of complex information systems, such as economic intelligence. Economic units now more than ever need to develop an integrated system that blends technology and human talents in order to increase their competitive advantage over rival economic units. This will enable them to make the best choices by ensuring that they have timely access to reliable information. To achieve these objectives, the theoretical component of the research defined the concept and stages of business process re-engineering in economic units, as well as how to apply them to accounting information systems and the concept of economic intelligence, using frameworks, theoretical concepts, and researcher opinions. It also looked at the experiences of other

countries in this field and the requirements that need to be met in order for them to be used in economic units. On the other hand, the practical part of the research was based on a case study of a vegetable oil company, where the challenges the company is currently facing, the extent to which it has the resources needed to implement economic intelligence, and the reasons for redesigning its accounting information systems were all assessed. (Ali, 2023).

Commentary on Previous Studies:

- Similarities in Previous Studies

The acknowledgement of Business Process Reengineering (BPR) as a potent technique for attaining notable enhancements in organizational performance, whether in the public or private sector, is a recurring theme in the earlier research. Together, these examples demonstrate how crucial BPR is for improving operational effectiveness, optimizing workflows, and bringing procedures into line with emerging technologies. Numerous studies highlight that, especially in quickly evolving economies like those in the Gulf area, BPR entails radically redesigning entire company processes in order to satisfy contemporary demands, rather than just altering specific activities. The focus on important success characteristics including effective process ownership, employee involvement, information technology integration, and leadership support is another common observation. These factors are frequently mentioned as crucial determinants of whether BPR projects meet their objectives or produce long-lasting gains. Additionally, it is widely acknowledged that BPR is strongly related to knowledge management, strategic planning, and technological infrastructure elements that impact how successful an organization's reengineering efforts are.

- Differences in Previous Studies

The studies' scope, focus, and methodological techniques vary despite these common viewpoints. While some studies focus exclusively on the public sector in Gulf nations, looking at transformation programs spearheaded by the government, others adopt a more comprehensive approach that encompasses both public and private entities in a range of industries. Methodologies vary greatly, ranging from statistical analysis and survey-based validation to qualitative interviews and case studies that represent various study contexts and goals. The geographical focus is one significant distinction: some studies concentrate on experiences in Saudi Arabia, while others concentrate on nearby nations like Bahrain or the United Arab Emirates. Furthermore, there are differences in the size and complexity of the BPR projects that have been examined. While some examine industry-wide changes or nationwide implementation initiatives,

others concentrate on small-scale pilot operations. The kinds of operational issues that are addressed also vary; some studies concentrate on hurdles that are technical and IT-related, while others focus on labor readiness, cultural opposition, or strategy alignment. These variances demonstrate the variety of obstacles that companies encounter when putting BPR into practice as well as the necessity of context-sensitive tactics.

- Research Gaps that Distinguish the Current Research

There are still a number of research gaps that set the current study apart, even though the previous studies offer insightful information about the use of BPR in both public and private settings. First, because a large portion of earlier research has focused on governmental organizations or mixed sectors, there is little attention paid explicitly to the private sector in Saudi Arabia. This gap is especially pertinent and topical given the strong drive for economic diversification and privatization under national reform programs. Second, the majority of previous research has focused on high-level success factors or failure rates, with less attention paid to the ways in which particular independent variables—like the degree of proper organizational support, technological integration, and the decrease in operational errors—interact to affect BPR outcomes in a private sector context. By closely analyzing these particular factors and quantifying their direct influence on BPR implementation, the current study seeks to close this gap. There is still a dearth of empirical research that systematically tests theoretical frameworks or models in the context of Saudi private sector enterprises, despite the fact that certain publications explore these topics. In order to address this, the current study combines empirical analysis with a targeted conceptual framework to produce useful and doable recommendations. Furthermore, the distinct organizational, cultural, and economic characteristics seen in the Saudi private sector have not always been adequately taken into consideration in earlier studies. The perception, adoption, and implementation of BPR can be greatly impacted by these local contextual elements, which this study will examine in detail. By filling in these gaps, the current research not only advances the academic community but also provides insightful information to policymakers and company executives who are working to attain operational excellence in a changing economic environment.

Theoretical Framework of the Study

The conceptual basis for comprehending how Business Process Reengineering (BPR) impacts operational issues in private sector companies in the Kingdom of Saudi Arabia is provided by the study's theoretical

framework. In order to direct the research process, inform the choice of variables, mold the methodology, and offer a framework for understanding the findings, a solid theoretical framework is necessary. It serves as a prism through which the study examines the connection between operational results and organizational actions like the application of BPR. The framework in this context is based on several well-known theories of management and organizational change, such as aspects of systems theory, change management theory, and BPR theory. When combined, these viewpoints aid in the analysis of the intricate relationships that affect whether BPR can effectively cut down on inefficiencies and boost productivity in the private sector.

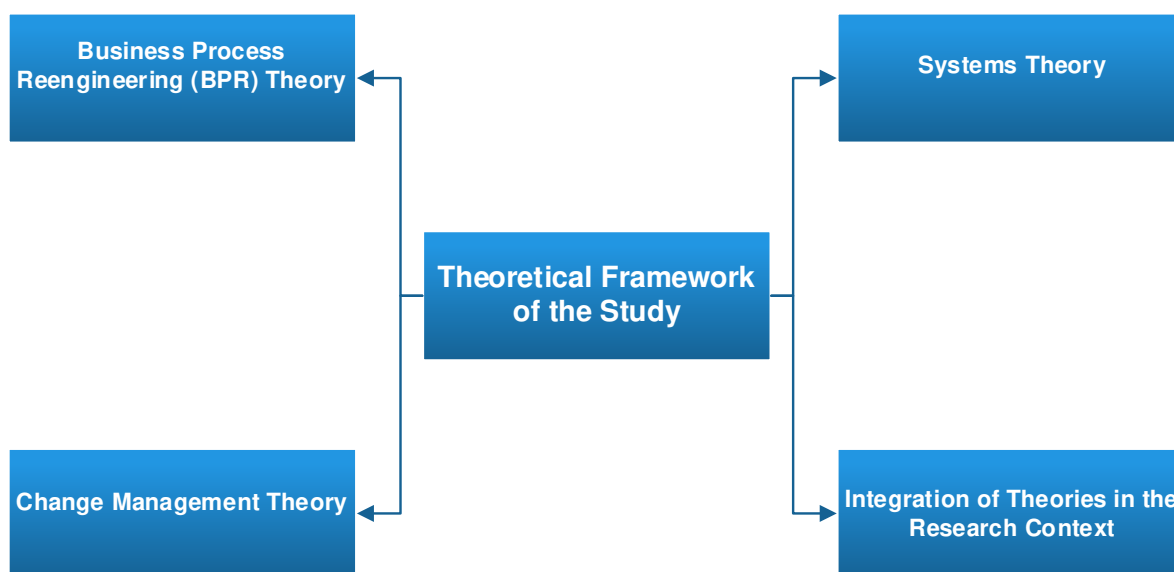


Figure 1: Theoretical Framework of the Study

- **Business Process Reengineering (BPR) Theory**

The fundamental idea of business process reengineering, which was created by industry pioneers who pushed for a drastic overhaul of key business processes, is at the heart of this theoretical framework. According to BPR theory, firms dealing with fierce rivalry, technological upheaval, or antiquated operational processes frequently find that little changes are insufficient. Organizations must instead start from scratch when rethinking and restructuring their business processes. BPR aims to maximize resource utilization, decrease process complexity, improve customer satisfaction, and get rid of non-value-adding operations. Key tenets of the idea include organizational flattening, employee empowerment, information technology integration, and process orientation (as opposed to task orientation). In order to satisfy changing market expectations, the Saudi private sector is currently undergoing fast transformation

due to Vision 2030. BPR provides a pertinent framework for comprehending how outdated operations can be replaced by more agile, customer-centered processes. (Nkurunziza, 2019).

- **Change Management Theory**

Change management theory, which is essential for comprehending the organizational and human dynamics that affect the success or failure of BPR activities, is another significant theoretical foundation bolstering this research. Lewin's three-stage model (unfreeze, change, refreeze) and Kotter's eight-step process are two examples of change management frameworks that emphasize that organizational transformation requires more than just technical redesign; it also requires psychological preparedness, leadership commitment, communication, and consistent reinforcement of new behaviors. Significant disruption is frequently a part of BPR initiatives, involving adjustments to business culture, reporting systems, and worker positions. As a result, effective implementation depends on controlling employee opposition, bringing stakeholders together, and encouraging an innovative culture. Applying change management principles becomes particularly crucial in the Saudi private sector, where cultural norms and established hierarchical structures may influence receptiveness to change. These theories clarify how employee involvement and leadership support, the two independent variables this study looked at, are necessary for effective BPR as well as facilitators. (Harrison, 2021).

- **Systems Theory**

Systems theory, which offers a comprehensive perspective of organizations as intricately linked systems, serves as the third theoretical pillar supporting this research. Systems theory states that any modification to one component of the system—like process redesign via BPR—will have repercussions on other components, such as customer service, human resources, and technology infrastructure. This viewpoint backs up the notion that BPR is a systemic intervention that needs to be aligned across multiple organizational dimensions rather than being seen in a vacuum. For instance, enhancing one procedure can necessitate updating IT systems or retraining employees in other areas of the system. Systems theory also reinforces the importance of feedback loops, continuous monitoring, and adaptability components that are particularly essential when addressing operational issues. Systems theory aids in framing BPR in the Saudi Arabian context as a concerted endeavor that, in order to be genuinely effective, must take organizational structure, the regulatory environment, and market conditions into consideration. (Alvarez, 2023).

- **Integration of Theories in the Research Context**

These theoretical underpinnings—BPR theory, change management theory, and systems theory—combine to create an integrated framework that facilitates the examination of the ways in which operational difficulties in Saudi private sector businesses are impacted by BPR implementation. This integration enables the study to investigate the connections among the organizational and behavioral elements that impact transformation (as described by change management theory), the core processes that are being redesigned (as directed by BPR theory), and the larger systemic interactions that establish whether or not those changes result in enhanced operational performance (as described by systems theory). The choice of particular independent variables, such as sufficient support, technology, and mistake rate, as important determinants of the dependent variable—the efficacy of BPR implementation—is likewise supported by this theoretical combination. (Jääskä, 2025).

Chapter Three

Study Methodology

Introduction

Chapter Three is dedicated to presenting the methodology that underpins this research, forming the blueprint for how the study is designed, executed, and analyzed. While the previous chapters focused

on the theoretical and conceptual foundations, this chapter will provide a detailed explanation of the research methodology and methods, clarifying the practical steps taken to investigate the impact of Business Process Reengineering (BPR) implementation on operational problems in private sector organizations in the Kingdom of Saudi Arabia. Methodology is crucial as it ensures the research is systematic, replicable, and capable of producing valid and reliable findings. This chapter will elaborate on the specific research design adopted, whether qualitative, quantitative, or mixed-methods, and justify why this approach best suits the objectives of the study.

In addition to explaining the overall research method, Chapter Three will introduce and describe the study tools used for data collection and analysis. These tools may include surveys, interviews, questionnaires, or observation checklists, each carefully selected to capture relevant information about BPR practices and operational challenges. The effectiveness of these instruments in gathering accurate and comprehensive data will be highlighted, emphasizing their role in addressing the research questions. Furthermore, the chapter will describe the research community defining the population and sample size, as well as the criteria for participant selection. Understanding the characteristics of the research community is essential to ensure that the findings are representative and meaningful within the Saudi private sector context.

This chapter will outline the detailed steps taken for data collection, including the timeline, procedures, and ethical considerations to ensure the integrity and confidentiality of the data. This section is critical as it provides transparency about how the information was gathered and managed, allowing readers to assess the credibility of the study. Finally, Chapter Three will discuss the limitations of the study, acknowledging potential constraints related to methodology, data availability, or contextual factors that might affect the generalizability of the findings. Recognizing these limitations is important because it frames the scope of the research and guides future studies to build upon or address these challenges. Overall, Chapter Three plays a pivotal role in demonstrating the rigor and thoroughness of the research process, thereby reinforcing the reliability and validity of the conclusions drawn in subsequent chapters.

Methodology and Research Methods

In order to investigate the impact of Business Process Reengineering (BPR) implementation on operational problems in private sector organizations in the Kingdom of Saudi Arabia, this study adopts a

quantitative research methodology. This approach is most appropriate for the nature of the research problem, which requires the measurement of relationships between specific variables—namely, the influence of organizational support, technological readiness, and error rates (independent variables) on the effectiveness of BPR implementation (dependent variable). Quantitative methodology enables the collection of numerical data from a large sample, allowing for statistical analysis, hypothesis testing, and generalization of findings to a wider population. The objective nature of quantitative research also provides a high degree of reliability and validity, making it suitable for analyzing patterns, trends, and correlations within organizational contexts.

The research design follows a descriptive and correlational model, as the aim is to describe current conditions within Saudi private sector organizations and explore the strength and direction of relationships among the study variables. Specifically, the study does not seek to manipulate or control any variables but rather observes them in their natural setting, assessing how variations in support systems, technological infrastructure, and error rates relate to the outcomes of BPR implementation. The correlational aspect of the design is essential for understanding the extent to which these factors influence operational problems, such as inefficiencies, delays, or redundant procedures. The data will allow the researcher to test hypotheses regarding whether higher levels of support and technology, and lower error rates, are associated with more successful reengineering outcomes.

To collect the necessary data, the study relies on a structured questionnaire distributed to a sample of employees working in various private sector organizations across different industries in Saudi Arabia. The questionnaire is designed to gather quantifiable responses on key indicators relevant to the study's variables. Closed-ended questions are used to ensure consistency in responses and to facilitate statistical analysis. The questionnaire is divided into several sections: demographic information, perceptions of organizational support, availability and integration of technology, observed error rates in operations, and the perceived success or challenges of BPR initiatives. Responses are measured using a Likert scale (e.g., from strongly disagree to strongly agree), allowing for numerical coding and robust statistical treatment of the data.

Once the data is collected, it will be analyzed using statistical software such as SPSS, enabling the application of both descriptive and inferential techniques. Descriptive statistics (such as means, standard deviations, and frequencies) will be used to summarize the general characteristics of the sample and the distribution of responses. Inferential statistics, particularly correlation analysis and multiple regression,

will be applied to examine the relationships between the independent and dependent variables. This will help determine the predictive power of organizational support, technology, and error rates in explaining the success or failure of BPR implementation. The use of regression analysis is especially valuable in isolating the relative impact of each independent variable while controlling for the effects of others.

The quantitative methodology employed in this study allows for a systematic and empirical examination of the impact of BPR on operational problems in Saudi private sector organizations. It provides a structured way to test hypotheses, validate theoretical assumptions, and derive conclusions based on measurable data. By relying on a representative sample and applying statistical rigor, the research is able to produce findings that can inform managerial practice and policy decisions, while also contributing to the academic literature on organizational transformation and business process management in developing economies.

Study Tools

To effectively explore the impact of Business Process Reengineering (BPR) implementation on operational problems in private sector organizations in the Kingdom of Saudi Arabia, the study relies primarily on a closed-ended questionnaire as the main data collection tool. The choice of this instrument is based on the nature of the research problem, which seeks to quantify relationships between variables and gather structured, comparable data across a broad population of respondents. Closed-ended questionnaires are ideal for quantitative research because they allow for systematic data collection, limit the variability in interpretations, and enable the use of statistical methods to analyze the responses objectively. This approach ensures consistency across participants and reduces the influence of personal bias or ambiguity in interpreting open responses, which is crucial when aiming for generalizable and statistically significant findings.

The questionnaire used in this study is designed to capture detailed information about respondents' experiences, perceptions, and evaluations regarding the implementation of BPR within their organizations. It consists of several carefully structured sections, each aimed at measuring one of the key variables of the study. The first section includes demographic information, such as age, gender, job role, industry type, and years of experience, which helps in understanding the background and diversity of the sample. The subsequent sections correspond to the study's core variables: adequate organizational support, technological infrastructure, error rate, and BPR outcomes. Each of these variables is measured

using a series of statements to which participants respond using a five-point Likert scale, ranging from “Strongly Disagree” (1) to “Strongly Agree” (5). This scale enables quantification of attitudes and perceptions, facilitating deeper analysis through statistical techniques such as correlation and regression.

The questionnaire items were developed based on a thorough review of previous literature in the fields of business process management, organizational change, and operational performance. Where applicable, existing validated scales were adapted to suit the context of the Saudi private sector. New items were also formulated to reflect specific operational realities and cultural considerations relevant to the local business environment. Each item was constructed to be clear, direct, and unbiased, to minimize confusion and ensure that responses accurately reflect the participants’ views. The language used was carefully tailored to suit professionals at various organizational levels, ensuring the instrument could be understood by employees with diverse educational and professional backgrounds.

Before deploying the questionnaire on a larger scale, a pilot study was conducted to test its clarity, reliability, and overall design. This involved distributing the questionnaire to a small sample of participants similar to the target population. Feedback from the pilot phase led to refinements in wording, sequencing, and the removal of any ambiguous or redundant items. Furthermore, the reliability of the questionnaire was assessed using Cronbach’s Alpha, a statistical measure used to determine the internal consistency of the scale items. A satisfactory alpha value (typically above 0.7) indicated that the items reliably measured their respective constructs, justifying the tool’s use for the main study.

The structured nature of the closed-ended questionnaire not only allows for efficient data collection but also supports anonymity and encourages more honest responses, especially when discussing potentially sensitive organizational issues such as inefficiencies or failure in reengineering efforts. Additionally, because the questionnaire can be distributed electronically, it enhances accessibility and scalability, enabling the study to reach participants across various industries and geographic regions within the Kingdom. This wide reach increases the robustness of the findings and strengthens the generalizability of the conclusions.

The closed-ended questionnaire serves as a foundational tool in this research, enabling the systematic capture of quantitative data aligned with the study’s objectives. It ensures consistency, reliability, and statistical rigor, allowing for a clear understanding of how key organizational factors such as support, technology, and error rates affect the implementation and outcomes of BPR in the Saudi

private sector. The careful design and validation of this instrument enhance the credibility of the research and its potential to inform both academic inquiry and managerial practice.

Research Community

The research community for this study comprises individuals working within private sector organizations across the Kingdom of Saudi Arabia who are directly or indirectly engaged with business process improvement, operational management, or organizational development efforts. This community includes a diverse mix of professionals such as operations managers, department heads, supervisors, IT personnel, administrative officers, and process improvement staff. These individuals are strategically positioned within their organizations to observe, participate in, or manage Business Process Reengineering (BPR) initiatives and are thus capable of providing meaningful insights into the realities of BPR implementation and its impact on operational performance. Their daily responsibilities typically include overseeing workflow efficiency, monitoring service or product quality, handling customer service operations, utilizing digital systems, and ensuring compliance with internal and external performance standards. Because BPR often spans multiple departments and functions, the research community is intentionally broad, ensuring that input is collected from various organizational layers and perspectives.

The focus on the private sector stems from the pivotal role that private enterprises play in advancing the national economic transformation of Saudi Arabia, particularly under the directives of Vision 2030. Private companies in the Kingdom are increasingly striving to enhance operational efficiency, reduce waste, improve customer satisfaction, and maintain competitive advantages in both local and global markets. In this evolving environment, the adoption of modern management tools—such as BPR—has become more than a choice; it is a necessity for survival and sustainable growth. The research community, therefore, includes employees from a range of industries such as retail, logistics, healthcare, manufacturing, finance, and telecommunications, which are among the most dynamic and process-intensive sectors in the Saudi economy. These sectors have shown significant interest in process reengineering as a strategic approach to reducing redundancies, modernizing legacy systems, and aligning operations with rapidly changing business conditions.

Engaging this particular research community is essential for uncovering how BPR is being applied in real organizational settings and what challenges or successes are associated with its implementation.

The insights provided by these individuals are grounded in firsthand experiences—whether they are managing reengineering projects, responding to process changes, adapting to new systems, or addressing operational inefficiencies. Their perspectives help illuminate the practical barriers to BPR success, such as resistance to change, inadequate managerial support, or limited technological infrastructure, as well as the enabling factors that facilitate transformation, such as clear leadership, employee training, and cross-functional collaboration. Involving a research community with this level of practical exposure ensures that the findings are not only theoretically relevant but also reflect the lived organizational realities of BPR in Saudi Arabia.

Selecting a research community that spans various organizational sizes and maturity levels allows the study to account for structural and cultural differences that may affect BPR outcomes. Small and medium-sized enterprises (SMEs), for example, may approach BPR differently than large corporations due to their resource constraints or flatter hierarchies. Likewise, newer organizations may be more agile and open to process innovation than legacy companies that operate within rigid, hierarchical frameworks. By including participants from organizations of varying sizes and sectors, the research community provides a comprehensive view of how contextual factors influence the success or failure of BPR efforts, particularly in addressing operational problems like delays, errors, duplication of effort, or customer dissatisfaction.

The research community for this study was carefully defined to include those professionals within Saudi Arabia's private sector who have direct relevance to the core subject of business process reengineering and operational performance. Their inclusion is not only vital to capturing the current realities of BPR implementation but also necessary for providing the nuanced understanding needed to formulate practical recommendations for organizational improvement. The diversity and depth of their experiences ensure that the findings of the study are grounded, relevant, and reflective of the ongoing transformation taking place within Saudi Arabia's business landscape.

Data Collection Steps

- Preparation and Planning Phase

The data collection process for this study began with a detailed planning phase to ensure the quality, consistency, and credibility of the information gathered. Given that the primary tool used was a closed-

ended questionnaire, the first step involved the careful design and development of the questionnaire itself. Drawing from existing academic literature on Business Process Reengineering (BPR), operational challenges, and organizational change, the questionnaire was structured to capture quantifiable data on the key variables of the study. These included independent variables such as adequate organizational support, the availability and quality of technology, and the rate of operational errors, as well as the dependent variable namely, the perceived effectiveness of BPR in addressing operational problems.

This phase also involved defining the target population and sampling method. A stratified random sampling technique was chosen to ensure that the sample would be representative of different sectors and organizational roles within the Saudi private sector. The sample included professionals from various industries, departments, and organizational levels to reflect a broad cross-section of the business landscape. Prior to full deployment, the questionnaire underwent a pilot test with a small subset of the target population. This was essential to evaluate the clarity, relevance, and reliability of the questions. Feedback from the pilot helped refine question wording, remove ambiguities, and ensure that the scale items were appropriately aligned with the constructs being measured.

- Distribution of the Questionnaire

Once the instrument was finalized, the next step in the data collection process was the distribution of the questionnaire to the intended participants. Considering the geographic spread and the professional nature of the respondents, the questionnaire was distributed primarily through electronic channels, such as email and secure online survey platforms. This method allowed for efficient dissemination, minimized logistical constraints, and enabled participation from individuals across various cities and regions in the Kingdom of Saudi Arabia. The use of digital platforms also made it easier to ensure anonymity, which is critical in encouraging honest responses, especially when addressing sensitive issues like organizational inefficiencies or management practices.

Each questionnaire was accompanied by a cover letter or introduction explaining the purpose of the study, ensuring participants of confidentiality, and clarifying that participation was voluntary. The communication also included brief instructions on how to complete the questionnaire and an estimated completion time to increase response rates. Reminders were sent periodically to encourage participation and ensure a sufficient sample size for statistical analysis. Efforts were made to reach a diverse group of respondents, including senior managers, department heads, operational staff, and IT personnel, to gain

comprehensive insight into the dynamics of BPR implementation across different organizational functions.

- Collection and Monitoring of Responses

As the questionnaires were submitted, the responses were automatically collected and stored in a centralized database, ensuring data integrity and security. During this phase, the research team continuously monitored the response rate and data quality. Duplicate submissions and incomplete responses were filtered out to maintain the reliability of the data set. In cases where certain sections were left blank or inconsistencies were identified, follow-up communications were sent if contact information was provided asking respondents to complete the missing sections or clarify any discrepancies. This process ensured that only high-quality, complete responses were included in the final analysis.

Throughout this stage, care was taken to ensure ethical compliance, particularly in maintaining the privacy and confidentiality of the participants. All identifiable information was removed or encrypted to prevent any possibility of tracing responses back to individuals or specific organizations. The integrity of the data collection process was maintained by limiting access to the database to authorized members of the research team and adhering strictly to ethical research guidelines as outlined by academic and professional institutions.

- Final Review and Preparation for Analysis

After a sufficient number of completed questionnaires had been received, the final step involved reviewing and organizing the collected data in preparation for statistical analysis. This included coding the Likert-scale responses numerically, cleaning the data set to eliminate anomalies or irrelevant entries, and organizing the information into a format compatible with statistical software such as SPSS. During this step, summary statistics were generated to identify any trends or irregularities in the data, which could influence the interpretation of the results. This preliminary examination also helped ensure that the assumptions required for regression and correlation analysis such as linearity, normality, and independence were met.

At this point, the research was ready to proceed to the data analysis phase, where hypotheses could be tested, relationships between variables could be measured, and conclusions could be drawn regarding the extent to which Business Process Reengineering impacts operational problems in Saudi Arabia's private sector. The structured and carefully monitored data collection process ensured that the analysis would be

based on valid, reliable, and ethically gathered data, strengthening the overall credibility and contribution of the study.

Research Limits

- Human Limits

The human limitations of this study are defined by the specific characteristics of the target population from which data was collected. The study focuses exclusively on individuals working within private sector organizations in the Kingdom of Saudi Arabia who are either directly involved in Business Process Reengineering (BPR) initiatives or are affected by them in their operational roles. These include managers, department heads, process analysts, IT staff, quality assurance personnel, and operational employees. However, the study does not include participants from public sector institutions, academic researchers, or external consultants. This limitation was intentional in order to maintain a focused examination of the BPR experience within the private sector, which is structurally and culturally different from government entities in terms of process flexibility, performance expectations, and organizational agility. Nonetheless, this human limitation may affect the generalizability of the results to broader contexts, particularly to the public sector or non-profit organizations that may operate under different constraints. Additionally, the study is limited to employees who are literate in either Arabic or English and who had access to the questionnaire via digital platforms, which excludes non-digitally literate workers or those without access to internet-based tools.

- Temporal Limits

The temporal scope of the study is another important boundary to consider. The data collection and analysis were confined to a specific time frame, which reflects a snapshot of the organizations' current state regarding BPR implementation and operational performance. The study was conducted over a defined period spanning several months during which the closed-ended questionnaires were developed, piloted, distributed, and analyzed. This time-bound nature of the research means that the results represent the conditions and experiences of organizations at that particular stage in their development, transformation, or BPR adoption process. Any major organizational changes, economic shifts, or strategic adjustments that occurred after the data collection phase are not reflected in the findings. Likewise, because BPR is a long-term, ongoing effort in many organizations, the study does not account for future

developments or delayed outcomes that may emerge after the study period. Therefore, while the findings are valid for the specified temporal context, they may not fully capture the evolving nature of BPR success or failure over time.

- **Spatial Limits**

The spatial or geographical limits of this study are restricted to private sector organizations operating within the Kingdom of Saudi Arabia. This geographical focus was selected due to the nation's active economic transformation and increasing investment in business process improvement under Vision 2030. The research includes a diverse sample of organizations across major Saudi cities such as Riyadh, Jeddah, Dammam, and Khobar, and covers a variety of industries, including manufacturing, retail, logistics, financial services, and telecommunications. However, it excludes private sector organizations outside of Saudi Arabia, including those in neighboring Gulf countries or other regions. This spatial boundary reflects the need to ground the research within the unique economic, cultural, and regulatory environment of Saudi Arabia, where organizational structures, leadership styles, and technological infrastructures may differ significantly from those in other nations. As such, while the findings offer valuable insights into the effectiveness of BPR in the Saudi private sector, caution must be exercised in applying these insights to organizations in different socio-economic or regulatory contexts.

Chapter Four

Study Results

Introduction

Chapter Four constitutes the analytical core of this research, as it systematically presents and interprets the data collected to understand the impact of Business Process Reengineering (BPR) implementation on operational problems within private sector organizations in the Kingdom of Saudi Arabia. Although this chapter has not been explicitly described in prior sections, it is essential to provide

a comprehensive overview of the processes of data analysis, the presentation of results, detailed discussion, concluding insights, and actionable recommendations. Each of these components plays a vital role in transforming raw data into meaningful conclusions that advance both academic knowledge and practical applications within the Saudi business environment.

The chapter begins with a detailed explanation of the data analysis procedures employed in the study. This involves the use of suitable statistical techniques such as descriptive statistics, correlation analysis, regression models, or qualitative content analysis depending on the nature of the data collected. The data analysis phase is critical because it ensures that the findings are not only systematically organized but also rigorously tested against the hypotheses and research questions outlined earlier. By applying these analytical tools, the study can objectively assess the extent to which BPR influences operational problems, while controlling for other relevant factors. This rigorous analysis provides the foundation for credible and valid results that can withstand academic scrutiny.

Following the analytical procedures, the chapter will present the results of the study in a clear and organized manner. This section highlights the key findings that demonstrate the relationship between BPR implementation and the operational challenges faced by organizations. Presenting the results with clarity often through tables, charts, and narrative descriptions is important because it allows readers to grasp the empirical evidence supporting or refuting the hypotheses. The results section is designed to be factual and unbiased, focusing strictly on what the data reveals before any interpretation or judgment.

Next, the chapter transitions into the discussion section, which is arguably the most interpretive and insightful part of the study. Here, the findings are examined in light of the theoretical framework and previous literature discussed in earlier chapters. The discussion delves into the implications of the results, exploring how they confirm, challenge, or extend existing knowledge about BPR and operational problems. It also considers the specific context of Saudi Arabia's private sector, taking into account cultural, economic, and regulatory factors that may influence the outcomes. This interpretive analysis is crucial because it helps translate raw data into meaningful insights, offering explanations for why certain patterns emerged and what they signify for practitioners and scholars alike.

Chapter Four concludes with a summary of the key conclusions drawn from the study and a set of recommendations. The conclusions synthesize the research findings, linking them back to the study's main objectives and hypotheses, and reflect on their broader significance. The recommendations provide

practical guidance for business leaders, managers, and policymakers seeking to implement or improve BPR initiatives to address operational inefficiencies. These suggestions may include strategies for overcoming common barriers, enhancing leadership commitment, or leveraging technology more effectively. Additionally, the chapter may propose areas for future research, acknowledging limitations encountered during the study and highlighting unresolved questions. By combining thorough analysis, thoughtful interpretation, and actionable advice, Chapter Four not only completes the research process but also equips stakeholders with the knowledge needed to drive meaningful improvements in Saudi Arabia's private sector organizations.

Data Analysis

- Descriptive Statistics

Descriptive statistics is a branch of statistics that focuses on summarizing and organizing data in a meaningful way. It involves the use of numerical measures and graphical tools to describe the basic features of a dataset. Common techniques include measures of central tendency (mean, median, mode),

measures of variability (range, variance, standard deviation), and data visualization methods like histograms, bar charts, and pie charts. Unlike inferential statistics, which makes predictions or generalizations about a population, descriptive statistics simply presents data in a clear and concise manner.

Descriptive statistics plays a vital role in helping researchers, analysts, and decision-makers understand and interpret large amounts of data quickly. By providing simple summaries and visualizations, it allows for easy identification of patterns, trends, and anomalies within a dataset. This is essential for making informed decisions, generating hypotheses for further study, or communicating findings effectively to others. In fields such as business, healthcare, education, and social sciences, descriptive statistics serves as the foundation for more complex data analysis and supports evidence-based decision-making (Cooksey, 2020).

Statistics							
	N	Std. Error of Mean	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
	Valid						
Age	100	0.122	1.220	0.481	0.241	-0.755	0.478
Gender	100	0.048	0.482	-0.592	0.241	-1.683	0.478
Educational degree	100	0.150	1.504	0.331	0.241	-1.347	0.478
The organization is radically redesigning its operations to improve performance	100	0.135	1.352	0.465	0.241	-1.008	0.478
The organization is applying modern methodologies to restructure core processes	100	0.150	1.505	0.350	0.241	-1.340	0.478
Employees are involved in the reengineering of procedures	100	0.161	1.610	0.353	0.241	-1.499	0.478

Management provides adequate support for the implementation of the reengineering process	100	0.153	1.533	0.190	0.241	-1.431	0.478
Technology is being effectively used to improve processes	100	0.147	1.474	0.493	0.241	-1.179	0.478
Administrative processes in the organization were slow and repetitive	100	0.152	1.520	0.485	0.241	-1.246	0.478
There were problems with workflow between different departments	100	0.155	1.549	0.361	0.241	-1.389	0.478
The error rate in implementing processes was high	100	0.152	1.519	0.339	0.241	-1.418	0.478
Customer satisfaction with the quality of services provided was low	100	0.145	1.455	0.594	0.241	-1.056	0.478
Communication between departments was ineffective	100	0.158	1.584	0.346	0.241	-1.430	0.478
The implementation of BPR reduced the time it took to complete processes	100	0.153	1.528	0.284	0.241	-1.414	0.478
The implementation of BPR reduced operational errors	100	0.147	1.473	0.052	0.241	-1.356	0.478
BPR helped improve coordination between different departments	100	0.157	1.572	0.154	0.241	-1.553	0.478
The implementation of BPR increased customer satisfaction	100	0.148	1.476	0.020	0.241	-1.358	0.478

The implementation of BPR reduced operating costs	100	0.152	1.523	0.154	0.241	-1.478	0.478
The organization faced employee resistance when implementing BPR	100	0.160	1.598	0.119	0.241	-1.590	0.478
It was difficult to change the organizational culture	100	0.152	1.520	0.482	0.241	-1.333	0.478

Table 1: Statistical description of data

Results

1. Age

The results revealed that the ages of the participants who participated most in the experiment were between 30 and 40 years old, representing 39.0% of the total sample. This indicates that the majority of respondents were likely to be in mid-career stages, potentially possessing a balance of experience and openness to organizational change. Their significant representation suggests that individuals in this age group may play a critical role in the implementation and evaluation of Business Process Reengineering (BPR) initiatives within private sector organizations in the Kingdom of Saudi Arabia. Their perspectives are particularly valuable, as they may be more familiar with existing operational challenges and better positioned to assess the impact of BPR on resolving such issues.

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30	13	13.0	13.0	13.0
	30-40	39	39.0	39.0	52.0
	40-50	21	21.0	21.0	73.0
	50-60	15	15.0	15.0	88.0
	60+	12	12.0	12.0	100.0
	Total	100	100.0	100.0	

Table 2: Statistical description of the age of the participants in the experiment

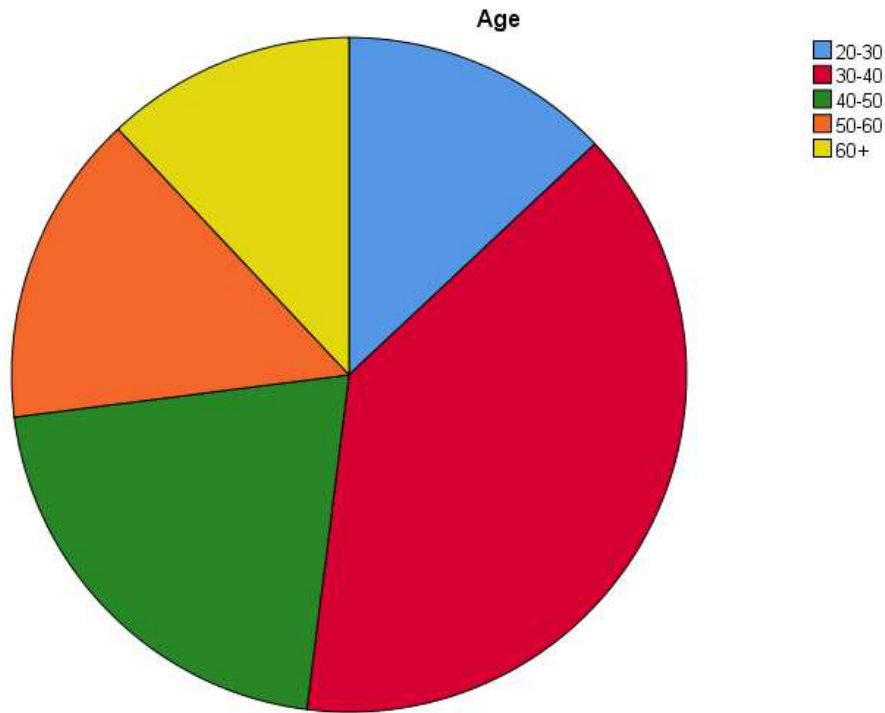


Figure2 : Graphic representation of the age of the participants in the experiment

2. Gender

The results revealed that the genders of participants who participated most in the experiment were female, representing 64.0% of the participants. This indicates a strong female presence and engagement in the processes related to Business Process Reengineering (BPR) within private sector organizations in the Kingdom of Saudi Arabia. It may reflect the increasing involvement and empowerment of women in the workforce, particularly in roles related to organizational development and operational management. Their active participation could also suggest that women are playing a vital role in identifying and addressing operational problems, thereby contributing significantly to the success of BPR initiatives in these organizations.

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	36	36.0	36.0	36.0
	Male	64	64.0	64.0	100.0
	Total	100	100.0	100.0	

Table 3: Statistical description of the gender of the participants in the experiment

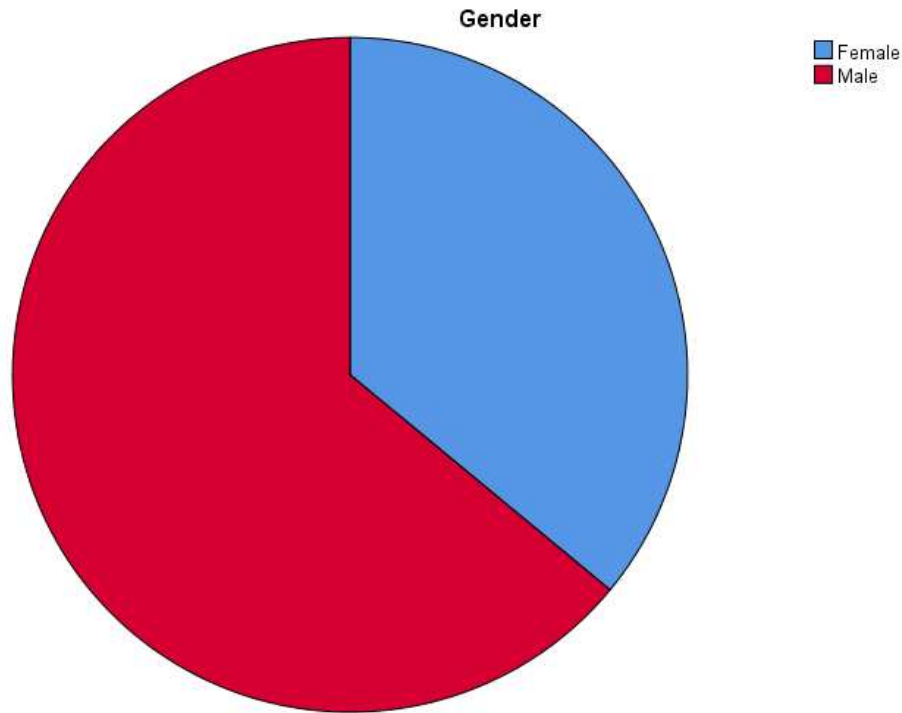


Figure 3: Graphic representation of the gender of the participants in the experiment

3. Educational degree

The results showed that those with a bachelor's degree were the most likely to participate in the experiment, accounting for 37.0% of the participants. This indicates that individuals with undergraduate-level education are highly involved in or affected by Business Process Reengineering (BPR) initiatives within private sector organizations in the Kingdom of Saudi Arabia. Their prominent participation suggests that bachelor's degree holders often occupy key operational or managerial positions where BPR strategies are implemented and assessed. This also reflects the educational profile of much of the workforce in these organizations, highlighting the importance of targeting this demographic when planning training, communication, and engagement strategies related to BPR efforts.

Educational degree					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's degree	37	37.0	37.0	37.0
	Diploma/associate degree	13	13.0	13.0	50.0
	Doctoral degree	19	19.0	19.0	69.0
	Less than high school	15	15.0	15.0	84.0
	Master's degree	16	16.0	16.0	100.0

	Total	100	100.0	100.0	
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Table 4: Statistical description of the educational degree of the participants in the experiment

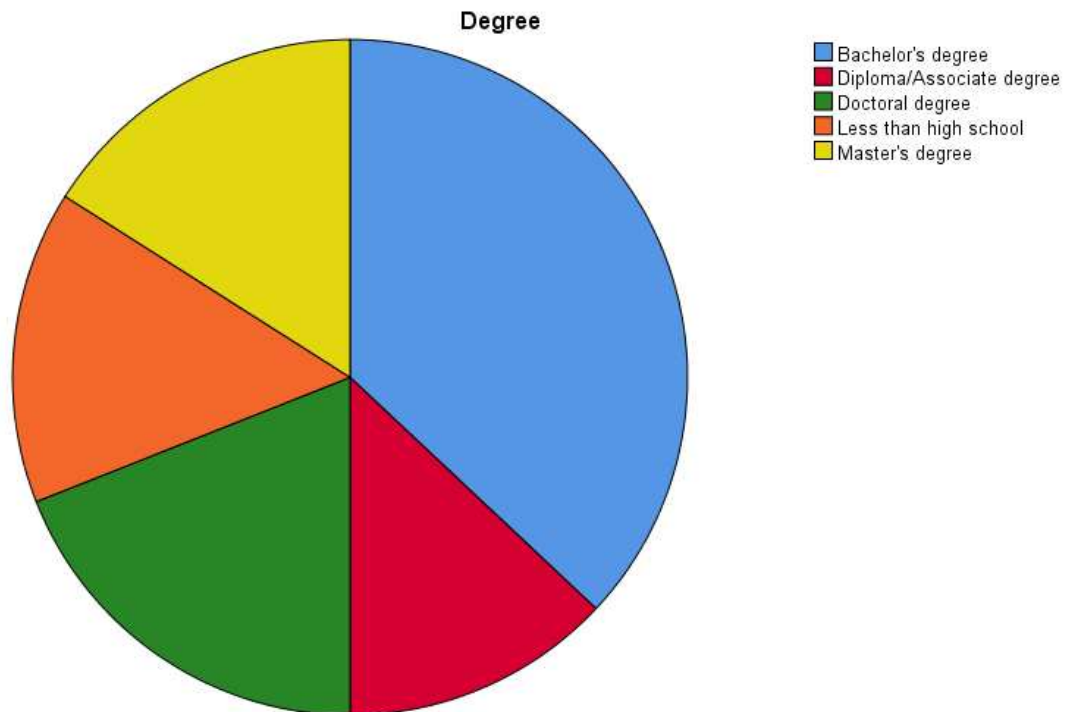


Figure 4: Graphic representation of the academic degree of the participants in the experiment

4. The organization is radically redesigning its operations to improve performance

Participants' questionnaires confirmed their agreement that the organization is radically redesigning its operations to improve performance, with a percentage of 33.0%. This represented the highest percentage of questionnaire responses among the participants in the experiment, indicating a strong perception among employees that Business Process Reengineering (BPR) efforts are actively underway within their organizations. This consensus suggests that significant changes are being recognized at the operational level, aligning with the core objectives of BPR to enhance efficiency, reduce costs, and improve overall performance. It also reflects a level of transparency and employee awareness regarding organizational transformation, which is crucial for the successful implementation and sustainability of BPR initiatives in the private sector of the Kingdom of Saudi Arabia.

The organization is radically redesigning its operations to improve performance

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	Agree	33	33.0	33.0	33.0
	Disagree	22	22.0	22.0	55.0
	Highly agree	20	20.0	20.0	75.0
	Highly Disagree	15	15.0	15.0	90.0
	neutral	10	10.0	10.0	100.0
	Total	100	100.0	100.0	

Table 5: A statistical description of an organization's work to radically redesign its operations to improve performance

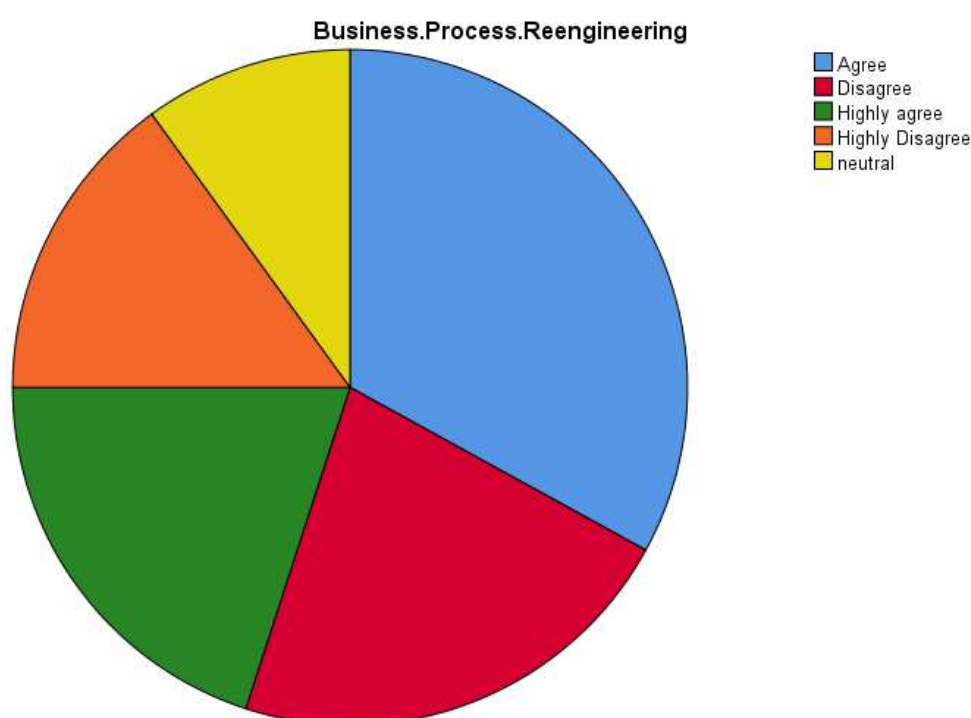


Figure 5: A graphic representation of an organization's work to radically redesign its processes to improve performance

5. The organization is applying modern methodologies to restructure core processes

Participants' responses confirmed their agreement that the organization is applying modern methodologies to restructure core processes, with a percentage of 37.0%. This represented the highest percentage of responses among the participants in the experiment, indicating a strong acknowledgment of the organization's commitment to adopting contemporary approaches in its Business Process Reengineering (BPR) efforts. Such methodologies likely include automation, digital transformation, and data-driven decision-making, all aimed at enhancing efficiency and addressing operational challenges. The high level of agreement suggests that employees are not only aware of these initiatives but also

perceive them as a central component of the organization's strategy to improve performance and competitiveness within the private sector in the Kingdom of Saudi Arabia.

The organization is applying modern methodologies to restructure core processes					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	37	37.0	37.0	37.0
	Disagree	14	14.0	14.0	51.0
	Highly agree	18	18.0	18.0	69.0
	Highly Disagree	15	15.0	15.0	84.0
	neutral	16	16.0	16.0	100.0
	Total	100	100.0	100.0	

Table 6: Statistical description of the organization's application of modern methods for restructuring core operations

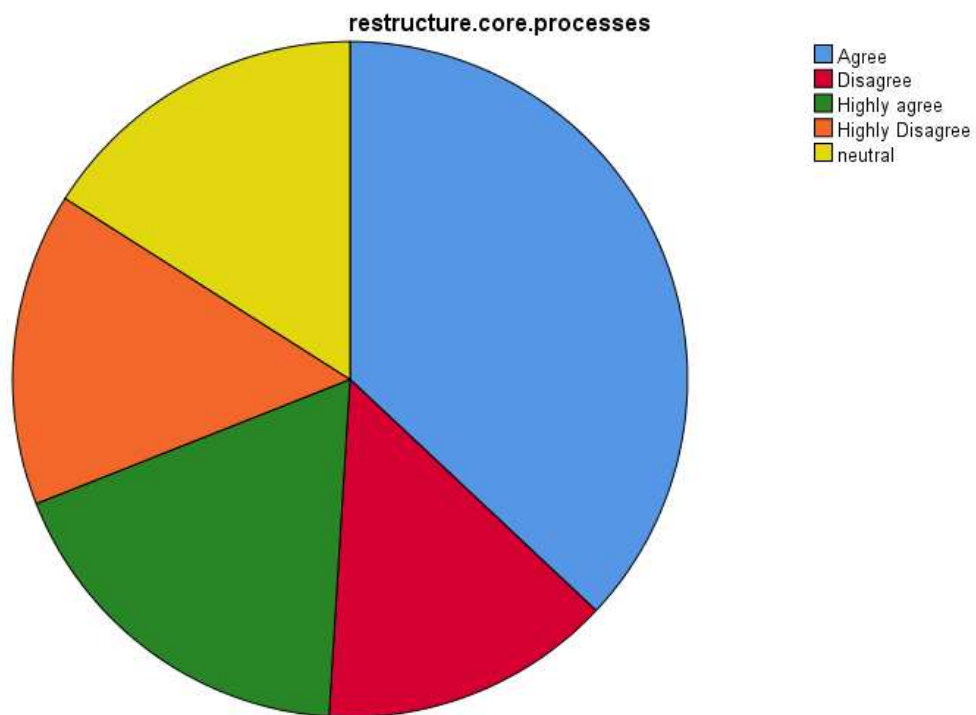


Figure 6: Graphic representation of the organization's application of modern methods for restructuring core processes

6. Employees are involved in the reengineering of procedures.

Participants' questionnaires confirmed their agreement that employees are involved in the reengineering of procedures, at a rate of 38.0%. This represented the highest percentage of questionnaire responses among the participants in the experiment, indicating a strong perception that employee engagement is a

key component of the Business Process Reengineering (BPR) efforts within private sector organizations in the Kingdom of Saudi Arabia. This level of involvement suggests that organizations recognize the importance of including employees in the redesign process to ensure practical, informed changes and to increase acceptance and successful implementation of new procedures. It also reflects a participatory organizational culture, where employee input is valued in driving operational improvements and addressing existing challenges.

Employees are involved in the reengineering of procedures					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	38	38.0	38.0	38.0
	Disagree	16	16.0	16.0	54.0
	Highly agree	11	11.0	11.0	65.0
	Highly Disagree	13	13.0	13.0	78.0
	neutral	22	22.0	22.0	100.0
	Total	100	100.0	100.0	

Table 7: Statistical description of employee participation in business process reengineering

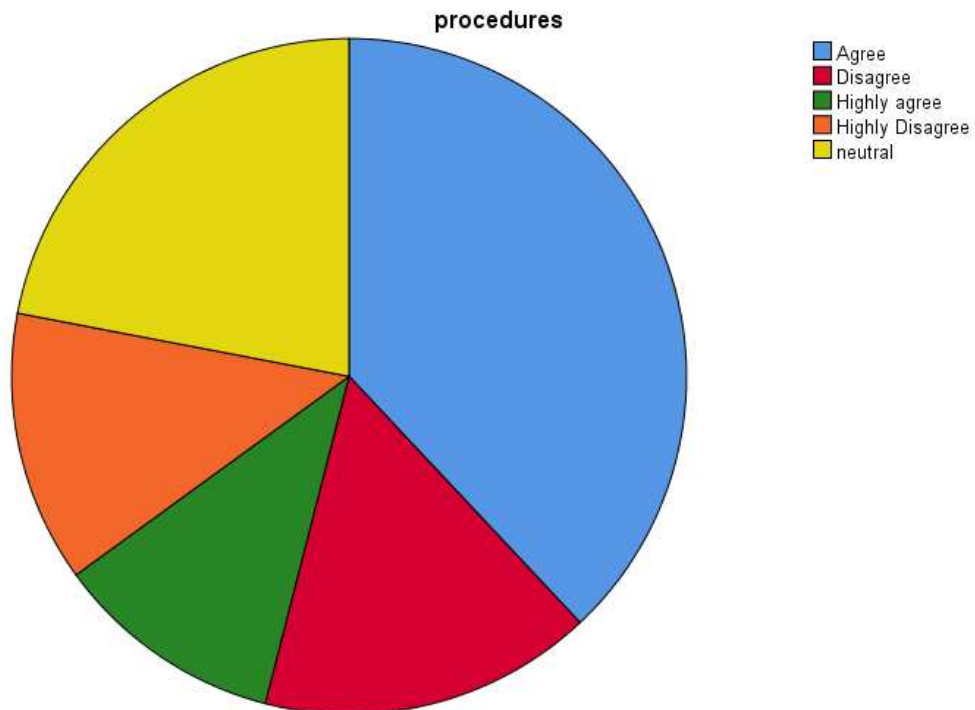


Figure 7: Graphic representation of employee participation in business process reengineering

7. Management provides adequate support for the implementation of the reengineering process

Participants' responses confirmed their agreement that management provides adequate support for the implementation of the reengineering process, with a percentage of 31.0%. This represented the highest percentage of responses among the participants in the experiment, indicating that strong managerial backing is perceived as a critical enabler of successful Business Process Reengineering (BPR) initiatives within private sector organizations in the Kingdom of Saudi Arabia. This support may include allocating resources, providing clear direction, and fostering a culture that embraces change. The high level of agreement suggests that leadership plays a proactive role in guiding and sustaining BPR efforts, which is essential for overcoming resistance, aligning organizational goals, and ultimately resolving operational problems effectively.

Management provides adequate support for the implementation of the reengineering process					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	31	31.0	31.0	31.0
	Disagree	15	15.0	15.0	46.0
	Highly agree	19	19.0	19.0	65.0
	Highly Disagree	14	14.0	14.0	79.0
	neutral	21	21.0	21.0	100.0
	Total	100	100.0	100.0	

Table 8: Statistical description to provide management with sufficient support to implement the reengineering process

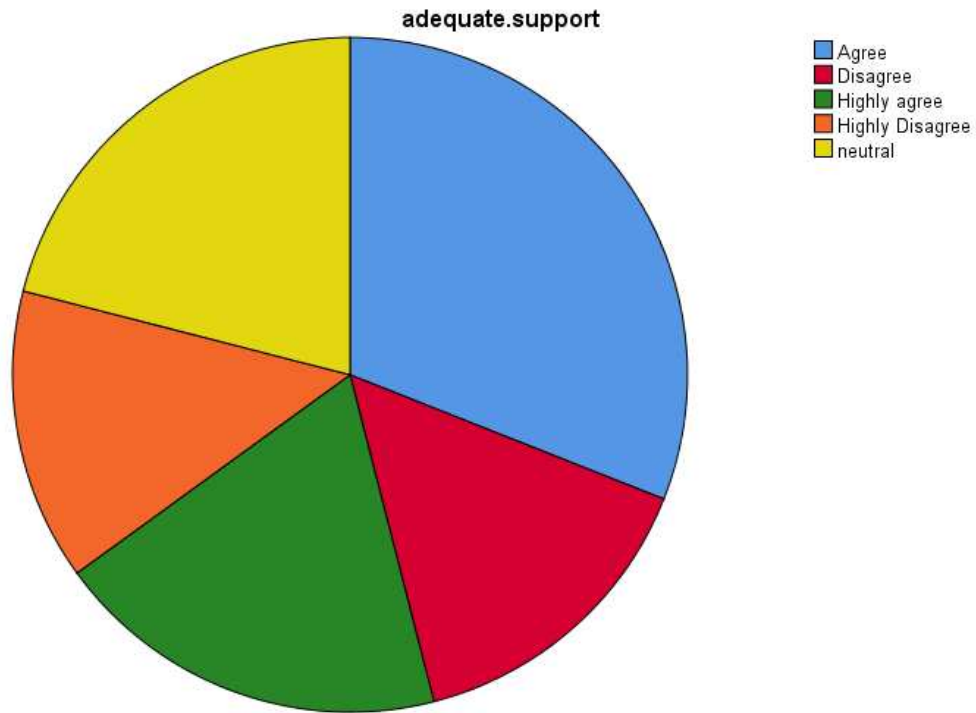


Figure 8: Graphic representation to provide management with sufficient support to implement the reengineering process

8. Technology is being effectively used to improve processes

Participants' responses confirmed their agreement that technology is being effectively used to improve processes, with a percentage of 37.0%. This represented the highest percentage of responses among the participants in the experiment, indicating that technological integration is widely recognized as a key driver of Business Process Reengineering (BPR) within private sector organizations in the Kingdom of Saudi Arabia. This suggests that organizations are leveraging modern tools such as automation, data analytics, and digital platforms to streamline operations, reduce inefficiencies, and enhance overall performance. The strong consensus also reflects the growing importance of technology in enabling sustainable transformation and resolving operational challenges in a rapidly evolving business environment.

Technology is being effectively used to improve processes					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	37	37.0	37.0	37.0
	Disagree	19	19.0	19.0	56.0
	Highly agree	16	16.0	16.0	72.0

	Highly Disagree	13	13.0	13.0	85.0
	neutral	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

Table 9: Statistical description of the effective use of technology to improve operations

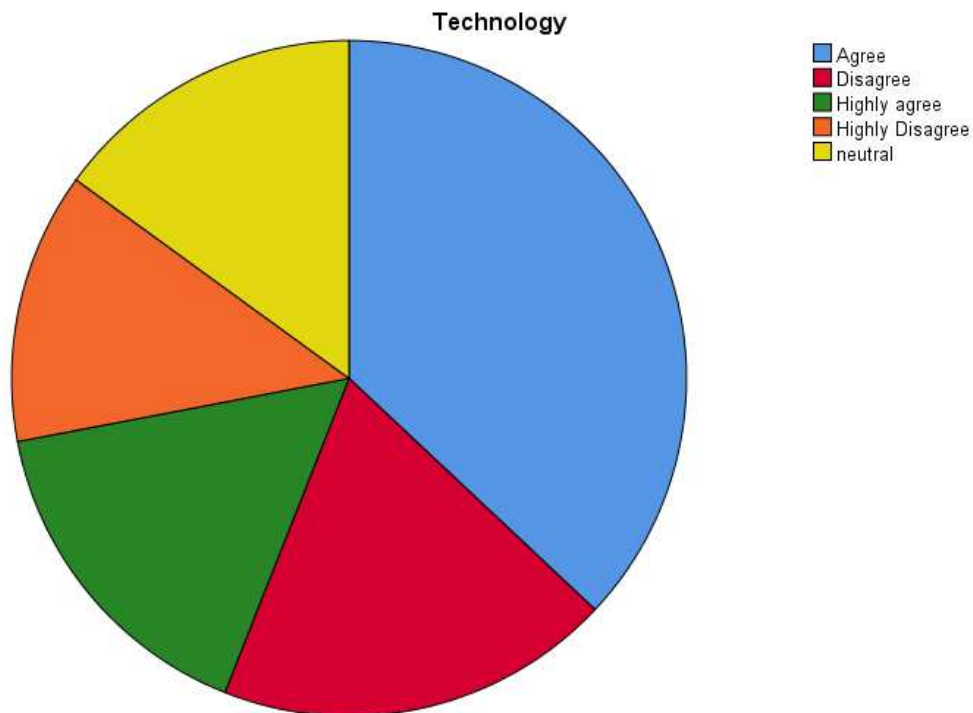


Figure 9: Graphic representation of the effective use of technology to improve operations

9. Administrative processes in the organization were slow and repetitive

Participants' responses confirmed that administrative processes in the organization were slow and repetitive, with a percentage of 37.0%. This represented the highest percentage of responses among the participants in the experiment, indicating a widespread recognition of inefficiencies and bottlenecks within existing operational procedures. Such perceptions highlight the critical need for Business Process Reengineering (BPR) initiatives to address these challenges by streamlining workflows, eliminating redundancies, and accelerating decision-making processes. The strong agreement among participants underscores the urgency for private sector organizations in the Kingdom of Saudi Arabia to adopt innovative solutions that can enhance productivity and reduce delays in administrative functions.

Administrative processes in the organization were slow and repetitive				
	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Agree	37	37.0	37.0	37.0
	Disagree	19	19.0	19.0	56.0
	Highly agree	15	15.0	15.0	71.0
	Highly Disagree	11	11.0	11.0	82.0
	neutral	18	18.0	18.0	100.0
	Total	100	100.0	100.0	

Table 10: Statistical description of administrative processes in the organization is slow and repetitive

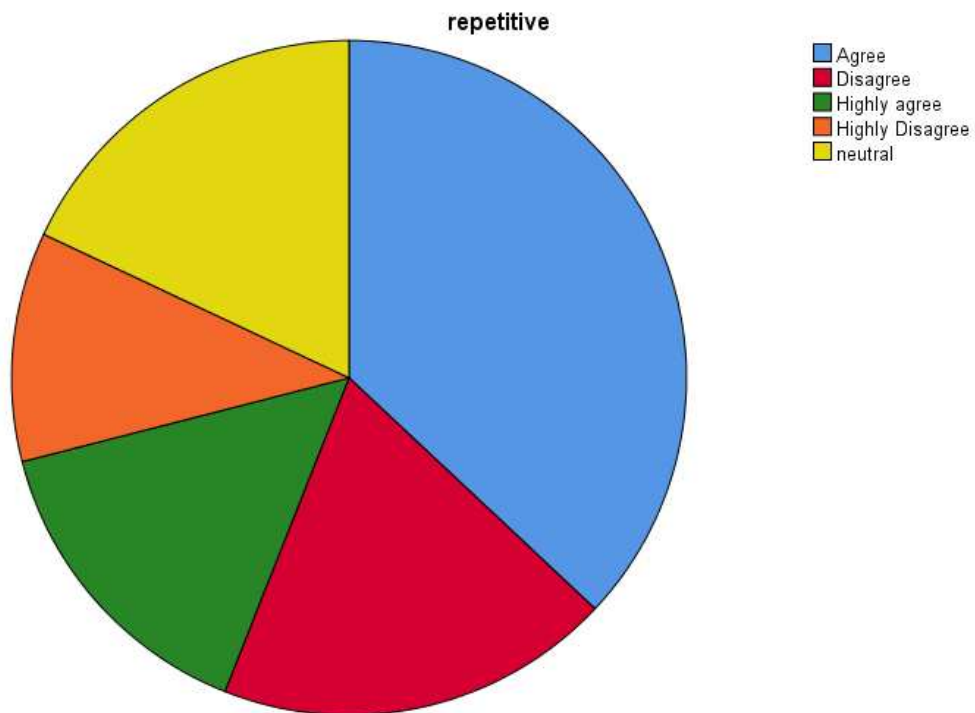


Figure 10: Graphic representation of administrative processes in an organization is slow and repetitive

10. There were problems with workflow between different departments

Participants' questionnaires confirmed that there were problems with workflow between different departments, at a rate of 37.0%. This represented the highest percentage of questionnaire responses among the participants in the experiment, indicating a common perception of interdepartmental communication and coordination challenges within private sector organizations in the Kingdom of Saudi Arabia. Such workflow issues can lead to delays, misunderstandings, and inefficiencies, underscoring the importance of Business Process Reengineering (BPR) efforts to redesign processes that promote better integration and collaboration across departments. The widespread acknowledgment of these problems

highlights the critical need for organizations to focus on improving cross-functional workflows to enhance overall operational performance.

There were problems with workflow between different departments					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	37	37.0	37.0	37.0
	Disagree	15	15.0	15.0	52.0
	Highly agree	16	16.0	16.0	68.0
	Highly Disagree	13	13.0	13.0	81.0
	neutral	19	19.0	19.0	100.0
	Total	100	100.0	100.0	

Table 11: Statistical description of problems in the workflow between different departments

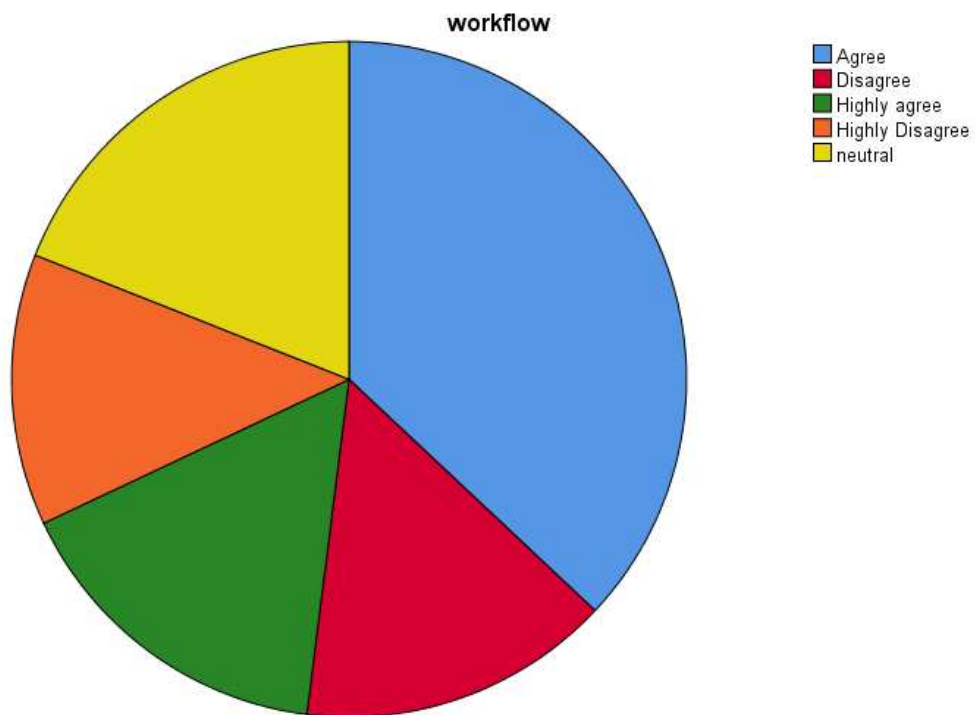


Figure 11: Graphical representation of problems in workflow between different departments

11. The error rate in implementing processes was high

Participants' questionnaires confirmed that the error rate in implementing processes was high, at 38.0%. This represented the highest percentage of questionnaire responses among the participants in the experiment, indicating a widespread concern regarding inaccuracies and mistakes within operational

workflows in private sector organizations in the Kingdom of Saudi Arabia. Such a high error rate highlights significant challenges in process execution, which can lead to inefficiencies, increased costs, and reduced customer satisfaction. This finding underscores the critical need for Business Process Reengineering (BPR) initiatives aimed at redesigning and improving process accuracy, standardization, and quality control to enhance overall organizational performance.

The error rate in implementing processes was high					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	38	38.0	38.0	38.0
	Disagree	15	15.0	15.0	53.0
	Highly agree	13	13.0	13.0	66.0
	Highly Disagree	19	19.0	19.0	85.0
	neutral	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

Table 12: Statistical description of the error rate in executing operations is high

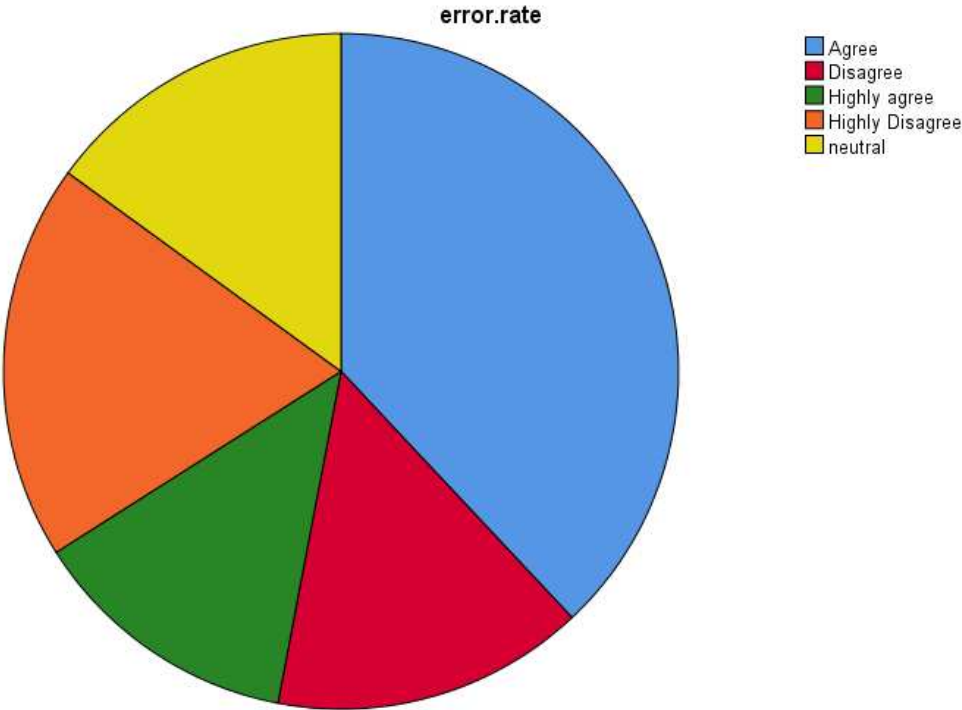


Figure 12: Graphic representation of high error rate in execution of operations

12. Customer satisfaction with the quality of services provided was low

Participants' questionnaires confirmed that customer satisfaction with the quality of services provided was low, at 42.0%. This represented the highest percentage of questionnaire responses among the participants in the experiment, indicating a significant concern regarding service delivery within private sector organizations in the Kingdom of Saudi Arabia. The low satisfaction rate highlights the urgent need for Business Process Reengineering (BPR) to address operational inefficiencies and improve service quality. This finding underscores the importance of redesigning processes not only to enhance internal performance but also to meet customer expectations and increase overall organizational competitiveness.

Customer satisfaction with the quality of services provided was low					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	42	42.0	42.0	42.0
	Disagree	16	16.0	16.0	58.0
	Highly agree	17	17.0	17.0	75.0
	Highly Disagree	12	12.0	12.0	87.0
	neutral	13	13.0	13.0	100.0
	Total	100	100.0	100.0	

Table 13: Statistical description of customer satisfaction with the quality of services provided is low

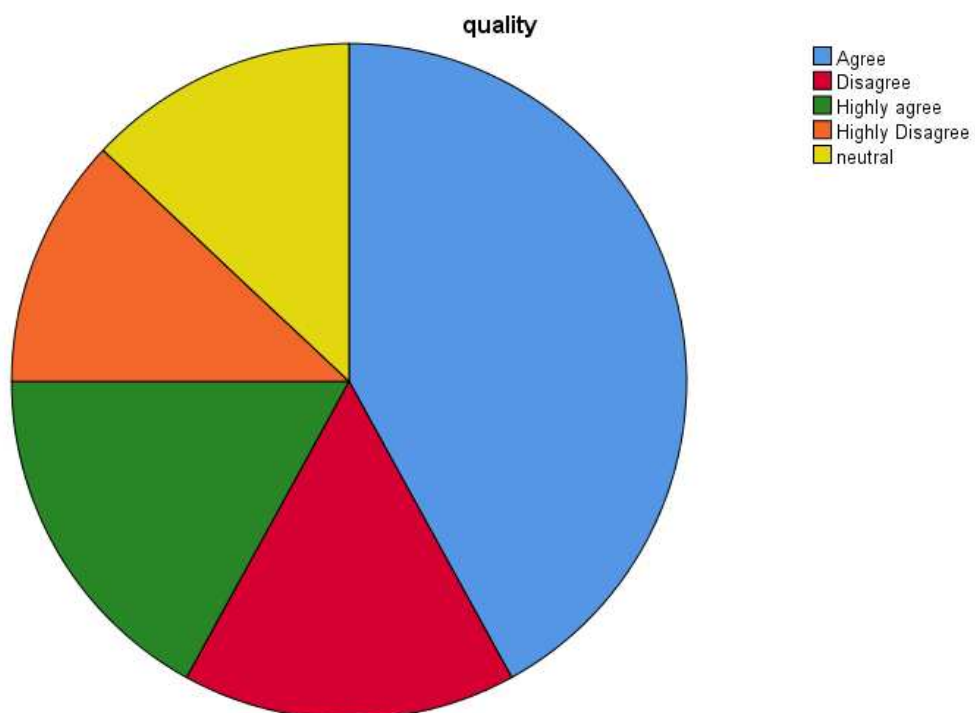


Figure 13: Graphic representation of customer satisfaction with the quality of services provided is low

13. Communication between departments was ineffective

Participants' questionnaires confirmed that customer satisfaction with the quality of services provided was low, at 42.0%. This represented the highest percentage of questionnaire responses among the participants in the experiment, indicating a significant concern regarding service delivery within private sector organizations in the Kingdom of Saudi Arabia. The low satisfaction rate highlights the urgent need for Business Process Reengineering (BPR) to address operational inefficiencies and improve service quality. This finding underscores the importance of redesigning processes not only to enhance internal performance but also to meet customer expectations and increase overall organizational competitiveness.

Communication between departments was ineffective					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	37	37.0	37.0	37.0
	Disagree	14	14.0	14.0	51.0
	Highly agree	17	17.0	17.0	68.0
	Highly Disagree	10	10.0	10.0	78.0
	neutral	22	22.0	22.0	100.0
	Total	100	100.0	100.0	

Table 14: Statistical description of communication between departments is ineffective

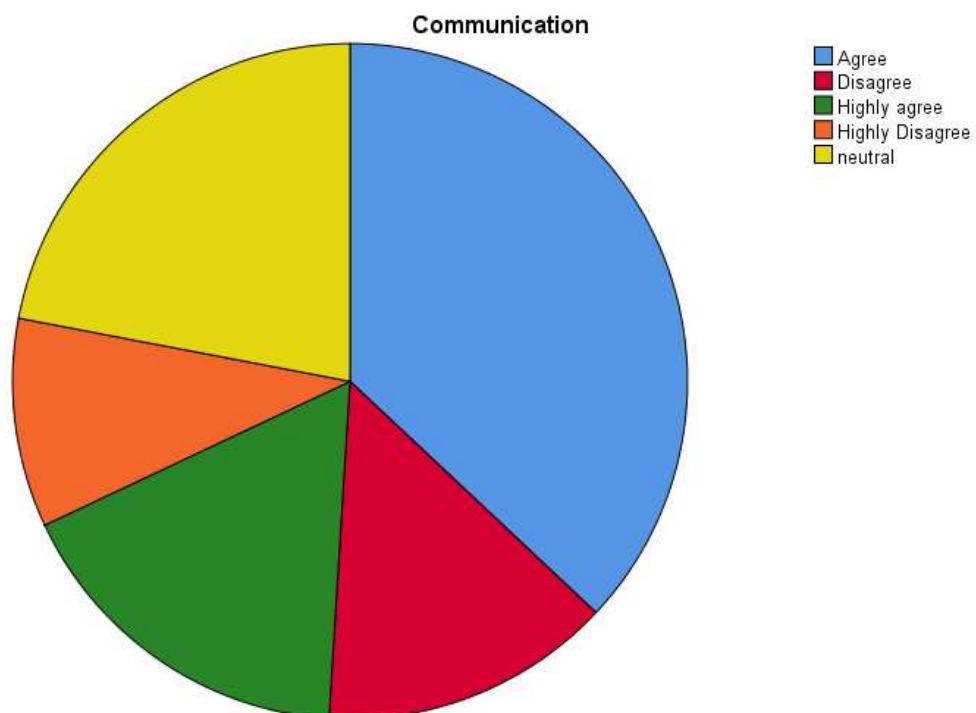


Figure 14: The graphic representation of communication between departments is ineffective

14. The implementation of BPR reduced the time it took to complete processes

Participants' responses confirmed their agreement that the implementation of Business Process Reengineering (BPR) reduced the time it took to complete processes, by 37.0%. This represented the highest response rate among the participants in the experiment, indicating a strong perception that BPR initiatives have effectively streamlined operations within private sector organizations in the Kingdom of Saudi Arabia. The reduction in process completion time reflects improved efficiency and productivity, which are critical goals of BPR. This widespread acknowledgment suggests that organizations are successfully addressing operational delays, leading to faster service delivery and enhanced overall performance.

The implementation of BPR reduced the time it took to complete processes					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	37	37.0	37.0	37.0
	Disagree	12	12.0	12.0	49.0
	Highly agree	18	18.0	18.0	67.0
	Highly Disagree	16	16.0	16.0	83.0
	neutral	17	17.0	17.0	100.0
	Total	100	100.0	100.0	

Table 15: Statistical description of the application of business process reengineering to reduce the time required to complete operations

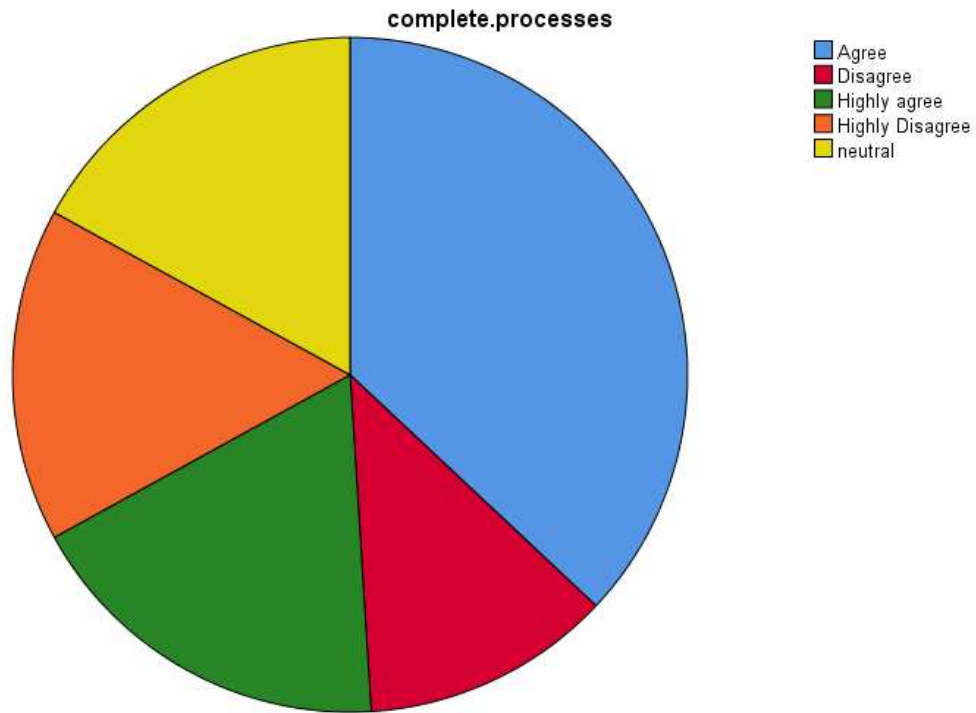


Figure 15: Graphic representation of the application of business process reengineering to reduce the time taken to complete operations

15. The implementation of BPR reduced operational errors

Participants' responses confirmed their agreement that the implementation of Business Process Reengineering (BPR) reduced operational errors by 29.0%, representing the highest response rate among participants in the experiment. This indicates a notable perception that BPR efforts have contributed to improving the accuracy and reliability of organizational processes within private sector organizations in the Kingdom of Saudi Arabia. The reduction in errors highlights the effectiveness of redesigned workflows and enhanced controls introduced through BPR, which are essential for minimizing costly mistakes and increasing overall operational quality. This consensus reflects the positive impact of BPR on strengthening process performance and supporting organizational goals.

The implementation of BPR reduced operational errors					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	29	29.0	29.0	29.0

	Disagree	11	11.0	11.0	40.0
	Highly agree	24	24.0	24.0	64.0
	Highly Disagree	18	18.0	18.0	82.0
	neutral	18	18.0	18.0	100.0
	Total	100	100.0	100.0	

Table 16: Statistical description of the application of business process reengineering to reduce operational errors

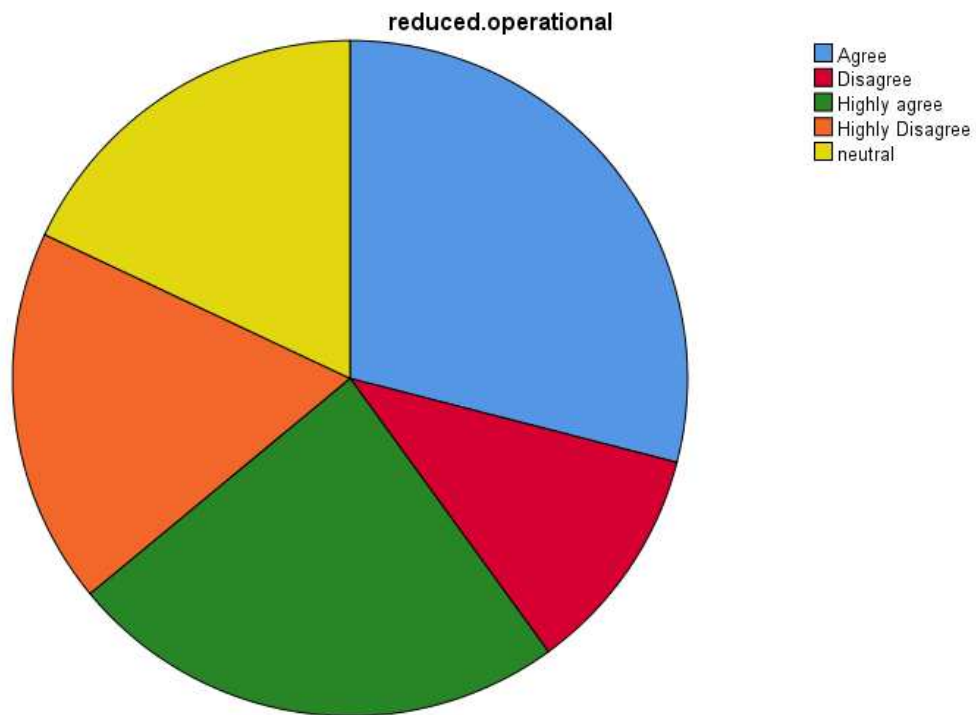


Figure 16: Graphical representation of the application of process reengineering to reduce operational errors

16. BPR helped improve coordination between different departments

Participants' surveys confirmed their agreement that Business Process Reengineering (BPR) helped improve coordination between different departments, with a percentage of 36.0%. This represented the highest percentage of survey responses among the participants in the experiment, indicating a widespread recognition of BPR's positive role in enhancing interdepartmental collaboration within private sector organizations in the Kingdom of Saudi Arabia. Improved coordination is crucial for reducing workflow bottlenecks, minimizing misunderstandings, and increasing overall operational efficiency. This strong agreement reflects the effectiveness of BPR initiatives in fostering a more integrated and cohesive

working environment, which ultimately supports smoother process execution and better organizational performance.

BPR helped improve coordination between different departments					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	36	36.0	36.0	36.0
	Disagree	11	11.0	11.0	47.0
	Highly agree	14	14.0	14.0	61.0
	Highly Disagree	20	20.0	20.0	81.0
	neutral	19	19.0	19.0	100.0
	Total	100	100.0	100.0	

Table 17: Statistical description to help business process reengineering improve coordination between different departments

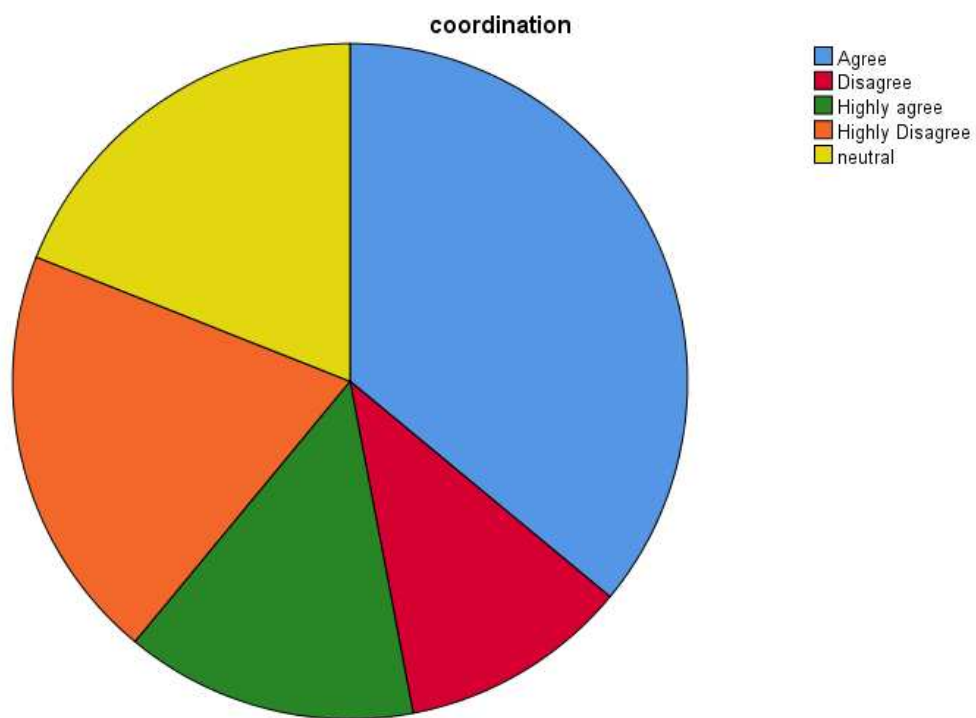


Figure 17: Graphic representation to help business process reengineering improve coordination between different departments

17. The implementation of BPR increased customer satisfaction

Participants' responses confirmed that the implementation of Business Process Reengineering (BPR) increased customer satisfaction by 28.0%, representing the highest response rate among participants in the experiment. This indicates a positive impact of BPR initiatives on improving the quality of services and meeting customer expectations within private sector organizations in the Kingdom of Saudi Arabia. The increase in customer satisfaction reflects successful efforts to streamline processes, reduce errors, and enhance service delivery. This outcome highlights the importance of BPR as a strategic approach to not only address internal operational problems but also to strengthen customer relationships and competitive advantage.

The implementation of BPR increased customer satisfaction					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	28	28.0	28.0	28.0
	Disagree	11	11.0	11.0	39.0
	Highly agree	24	24.0	24.0	63.0
	Highly Disagree	18	18.0	18.0	81.0
	neutral	19	19.0	19.0	100.0
	Total	100	100.0	100.0	

Table 18: Statistical description of the application of business process reengineering to increase customer satisfaction

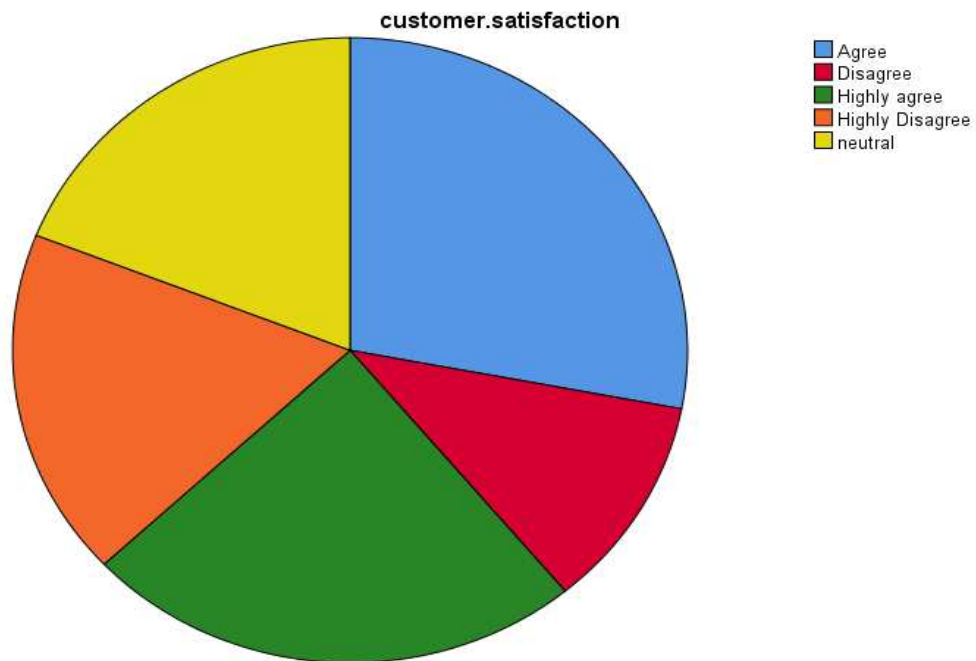


Figure 18: Graphic representation of the application of business process reengineering to increase customer satisfaction

18. The implementation of BPR reduced operating costs

Participants' responses confirmed their agreement that the implementation of Business Process Reengineering (BPR) reduced operating costs by 32.0%, representing the highest response rate among participants in the experiment. This indicates a strong perception that BPR initiatives have effectively contributed to cost savings within private sector organizations in the Kingdom of Saudi Arabia. By streamlining processes, eliminating redundancies, and improving efficiency, BPR has helped organizations optimize resource utilization and reduce unnecessary expenditures. This widespread agreement underscores the financial benefits of BPR and its role in enhancing the overall sustainability and competitiveness of organizations in the private sector.

The implementation of BPR reduced operating costs					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	32	32.0	32.0	32.0
	Disagree	15	15.0	15.0	47.0
	Highly agree	15	15.0	15.0	62.0
	Highly Disagree	20	20.0	20.0	82.0
	neutral	18	18.0	18.0	100.0
	Total	100	100.0	100.0	

Table 19: Statistical description of the application of business process reengineering to reduce operating costs

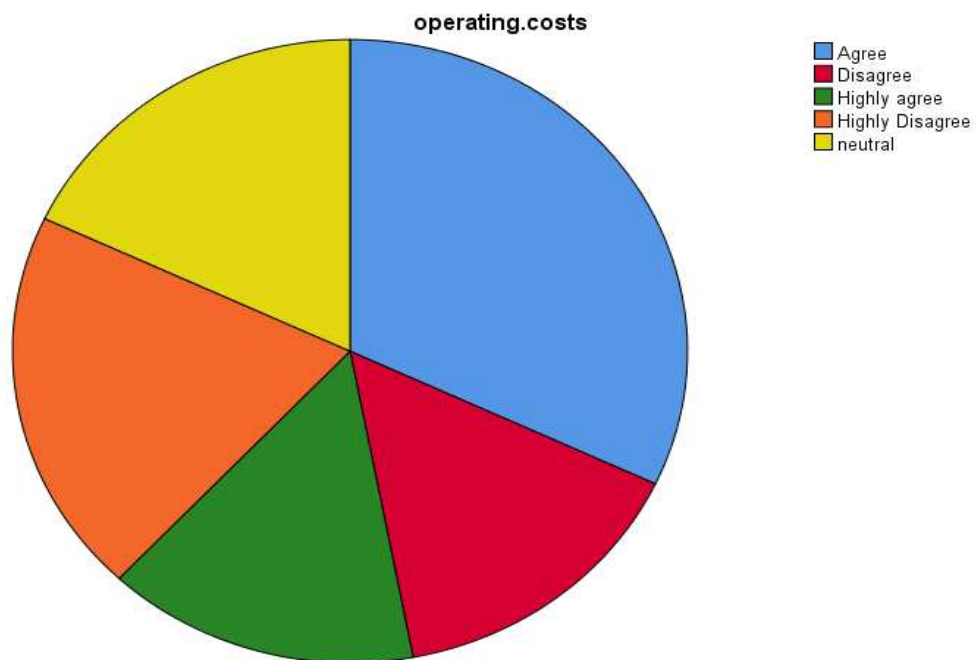


Figure 19: Graphic representation of the application of business process reengineering to reduce operating costs

19. The organization faced employee resistance when implementing BPR

Participants' questionnaires confirmed their agreement that the organization faced employee resistance when implementing Business Process Reengineering (BPR), with a percentage of 34.0%. This represented the highest percentage of questionnaire responses among the participants in the experiment, indicating that employee resistance is a significant challenge in the successful adoption of BPR initiatives within private sector organizations in the Kingdom of Saudi Arabia. Such resistance may stem from fear of change, uncertainty about new processes, or concerns over job security. Recognizing this issue highlights the need for effective change management strategies, including clear communication, employee involvement, and training, to overcome resistance and ensure smoother implementation and sustainability of BPR efforts.

The organization faced employee resistance when implementing BPR					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	34	34.0	34.0	34.0
	Disagree	13	13.0	13.0	47.0
	Highly agree	12	12.0	12.0	59.0
	Highly Disagree	19	19.0	19.0	78.0
	neutral	22	22.0	22.0	100.0
	Total	100	100.0	100.0	

Table 20: Statistical description of the organization's employee resistance when implementing business process reengineering.

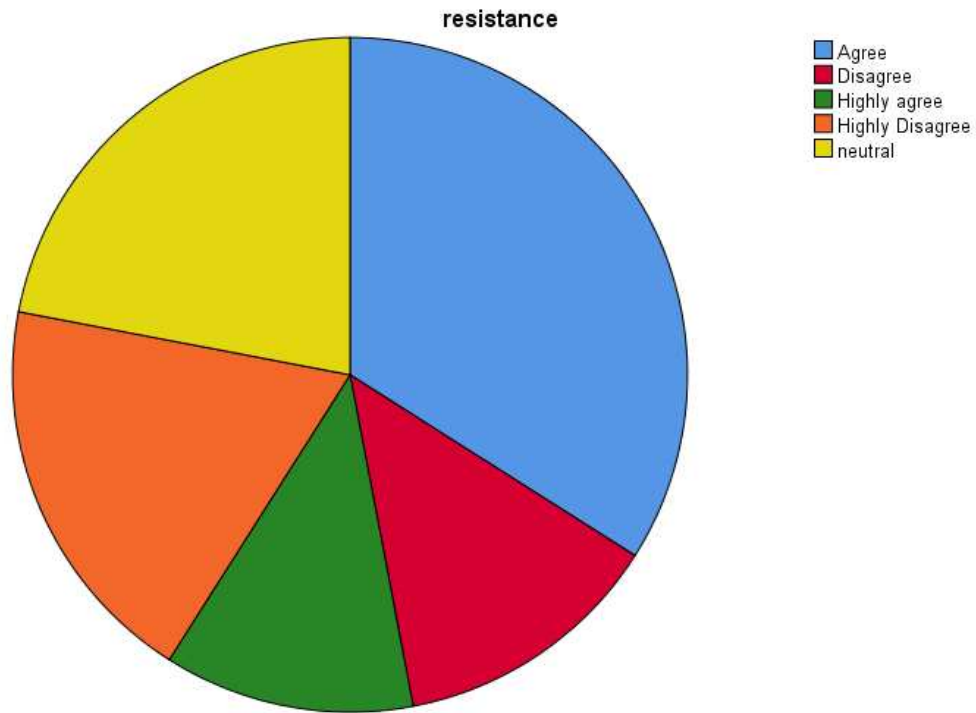


Figure 20: Graphic representation of the organization facing employee resistance when implementing business process reengineering

20. It was difficult to change the organizational culture.

Participants' responses confirmed that it was difficult to change the organizational culture, with 42.0% agreeing. This represented the highest response rate among the participants in the experiment, indicating that cultural resistance is a major obstacle to the successful implementation of Business Process Reengineering (BPR) in private sector organizations in the Kingdom of Saudi Arabia. The strong agreement underscores the challenge of shifting deeply ingrained values, beliefs, and behaviors that can hinder acceptance of new processes and practices. Addressing this cultural barrier is essential for ensuring that BPR initiatives are embraced throughout the organization, enabling sustainable improvements and effective resolution of operational problems.

It was difficult to change the organizational culture.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	42	42.0	42.0	42.0
	Disagree	16	16.0	16.0	58.0
	Highly agree	10	10.0	10.0	68.0
	Highly Disagree	18	18.0	18.0	86.0
	neutral	14	14.0	14.0	100.0

	Total	100	100.0	100.0	
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Table 21: Statistical description It was difficult to change the organizational culture

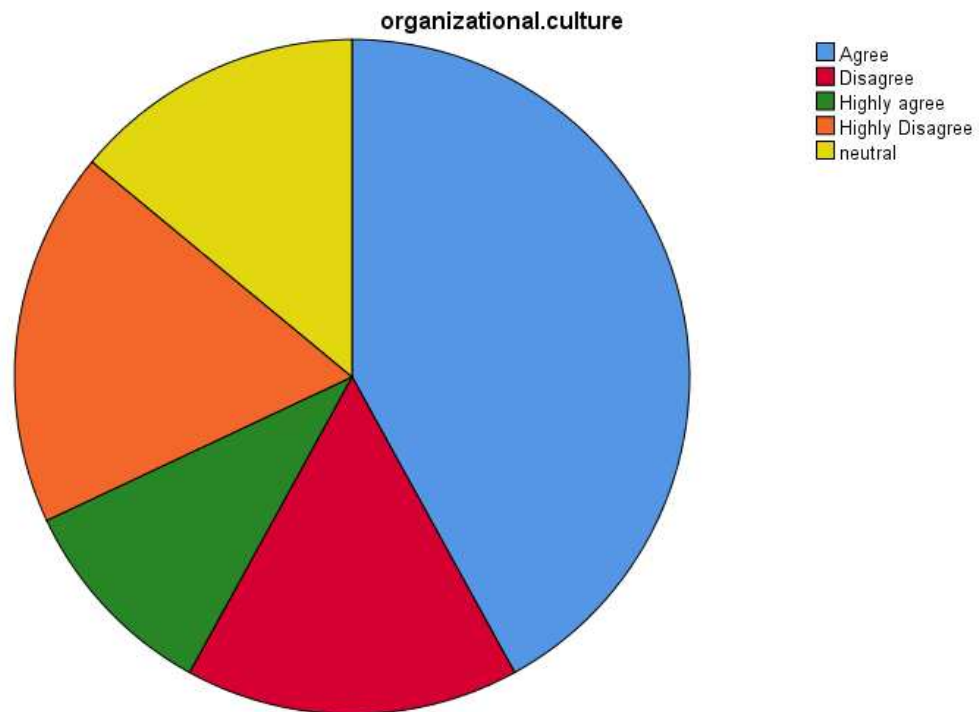


Figure 21: Graphic representation It was difficult to change the organizational culture

- Reliability and credibility analysis

The case processing summary indicates that all 100 cases included in the study were valid and analyzed, with no exclusions due to missing data or other issues. This demonstrates a complete data set for the reliability analysis, ensuring that the findings are based on the entire sample, which strengthens the overall credibility of the results. The absence of excluded cases suggests effective data collection and management procedures, contributing to the robustness of the statistical analysis. Such completeness is critical when assessing the reliability of measurement instruments, as it avoids bias that might arise from incomplete data.

The reliability statistics, particularly the Cronbach's Alpha value of 0.875 (and 0.858 based on standardized items), indicate a high level of internal consistency among the 20 items used in the study. Cronbach's Alpha values above 0.7 are generally considered acceptable, while values above 0.8 suggest good reliability. This means that the questionnaire or scale items are measuring the same underlying construct consistently across different participants. High reliability is crucial for ensuring that the data collected are dependable and that the conclusions drawn from the analysis are valid. Therefore, the results confirm that the instrument used in this study to assess factors related to Business Process Reengineering and operational problems in private sector organizations in Saudi Arabia is both reliable and credible.

Case Processing Summary			
		N	%
Cases	Valid	100	100.0
	Excluded ^a	0	.0
	Total	100	100.0
a. Listwise deletion based on all variables in the procedure.			

Table 22: Case Processing Summary

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.875	.858	20

Table 23: Reliability Statistics

- **Relation between variables**

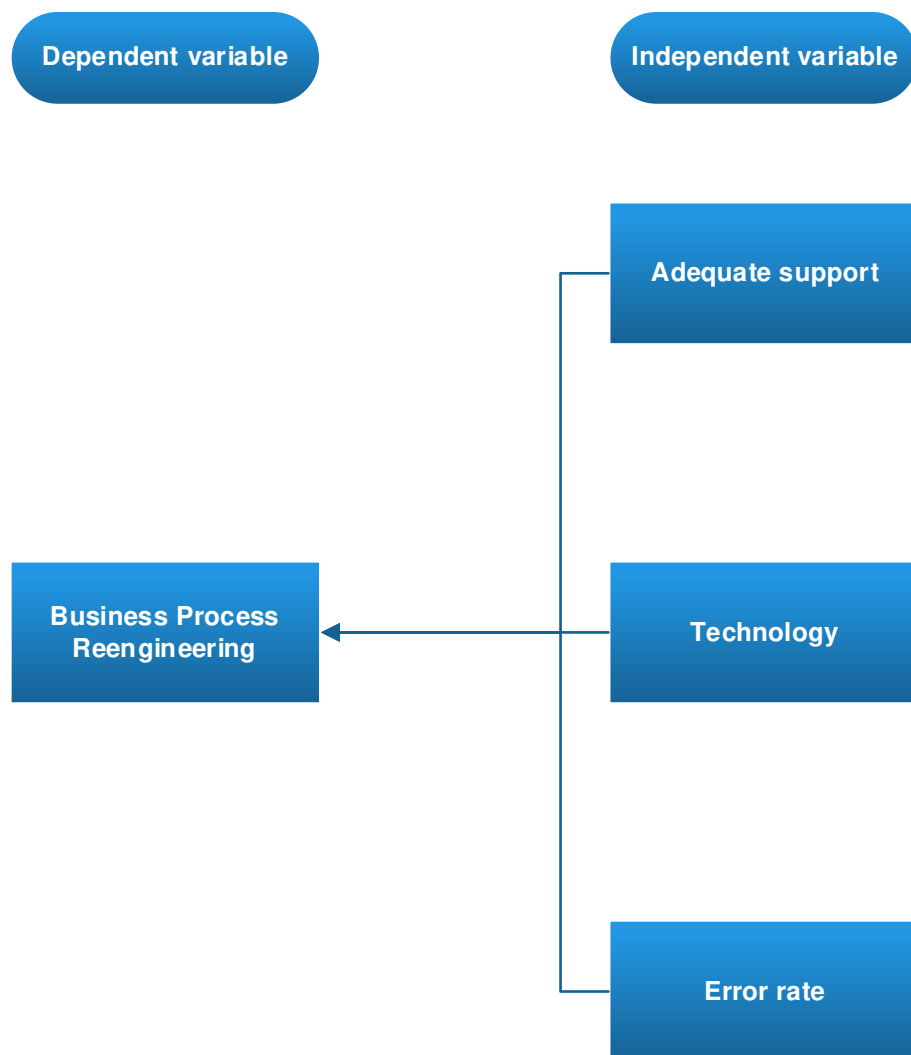


Figure 22: Dependent and independent study variables

- **Cross Tables Analysis**

1. The Role of Reengineering Applications in Providing Adequate Support in Private Sector Organizations in the Kingdom of Saudi Arabia

The Chi-Square test results from the cross-tabulation analysis examining the role of reengineering applications in providing adequate support within private sector organizations in the Kingdom of Saudi Arabia reveal a statistically significant association. Specifically, the Pearson Chi-Square value of 43.309 with 4 degrees of freedom and a p-value of .000 (less than the conventional threshold of 0.05) indicates a strong relationship between the variables analyzed. This means that the extent to which reengineering applications provide adequate support is significantly related to other factors measured in the study, such as organizational characteristics, employee perceptions, or implementation outcomes. The Likelihood Ratio test, which also yields a significant value of 48.424 with the same degrees of freedom and p-value, reinforces the robustness of this association. Moreover, the Linear-by-Linear Association statistic of 14.267 with a p-value of .000 suggests that there is a significant linear trend in the data, implying that as one variable increases or decreases, there is a corresponding systematic change in the other variable. Taken together, these results provide strong evidence that the application of Business Process Reengineering (BPR) is closely linked to the perception or reality of receiving adequate support within private sector organizations, highlighting the critical importance of effective reengineering strategies in ensuring organizational support mechanisms. The analysis is based on 100 valid cases, which provides a solid sample size for reliable interpretation and strengthens the generalizability of these findings within the context studied.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	43.309 ^a	4	.000
Likelihood Ratio	48.424	4	.000
Linear-by-Linear Association	14.267	1	.000
N of Valid Cases	100		
a. 20 cells (80.0%) have expected count less than 5. The minimum expected count is 1.40.			

Table 24: Chi-square test of the role of reengineering applications in providing adequate support in private sector organizations in the Kingdom of Saudi Arabia

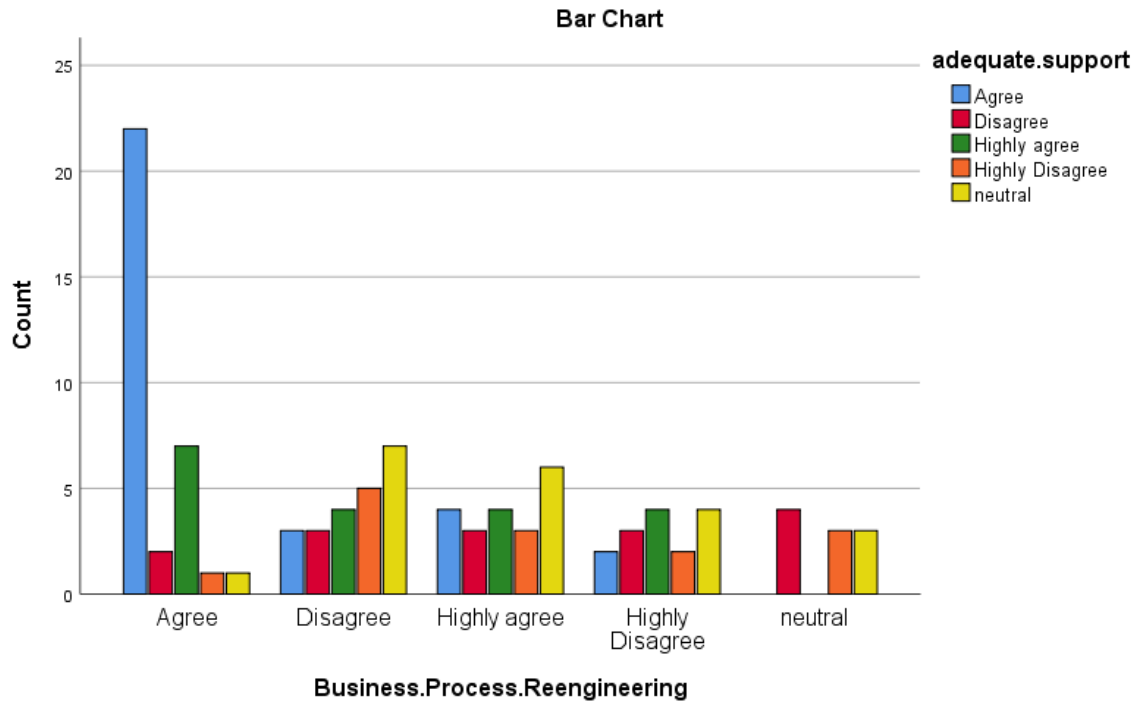


Figure 23: Similar measures in analyzing the relationship between the role of reengineering applications in providing adequate support in private sector organizations in the Kingdom of Saudi Arabia

2. The Role of Technology in Developing Reengineering Applications in Private Sector Organizations in the Kingdom of Saudi Arabia

The Chi-Square test results exploring the role of technology in developing reengineering applications within private sector organizations in the Kingdom of Saudi Arabia show a statistically significant association, although with some nuanced findings. The Pearson Chi-Square value of 28.439 with 4 degrees of freedom and an asymptotic significance (p-value) of .028 indicates that there is a meaningful relationship between the use of technology and the development of reengineering applications. This p-value being below the conventional 0.05 threshold confirms that the observed association is unlikely due to chance. Similarly, the Likelihood Ratio test supports this conclusion, yielding a value of 28.887 with a p-value of .025, which also confirms the significance of the relationship. However, the Linear-by-Linear Association test, which assesses whether there is a linear trend between the variables, produced a value of 1.406 with a p-value of .236, suggesting that there is no significant linear trend in the data. This means that while technology is clearly related to reengineering development, the relationship may not follow a simple increasing or decreasing linear pattern but could be more complex or categorical in nature. Overall, these results, based on 100 valid cases, highlight the important but potentially multifaceted role that

technology plays in shaping how reengineering applications are developed and implemented in private sector organizations in Saudi Arabia. The findings emphasize that technological integration is a significant factor, yet the ways in which it influences reengineering may vary across different contexts or stages of adoption, suggesting a need for deeper investigation into specific technological impacts on BPR processes.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	28.439 ^a	4	.028
Likelihood Ratio	28.887	4	.025
Linear-by-Linear Association	1.406	1	.236
N of Valid Cases	100		
a. 19 cells (76.0%) have expected count less than 5. The minimum expected count is 1.30.			

Table 25: A chi-square test of the role of technology in developing reengineering applications in private sector organizations in the Kingdom of Saudi Arabia

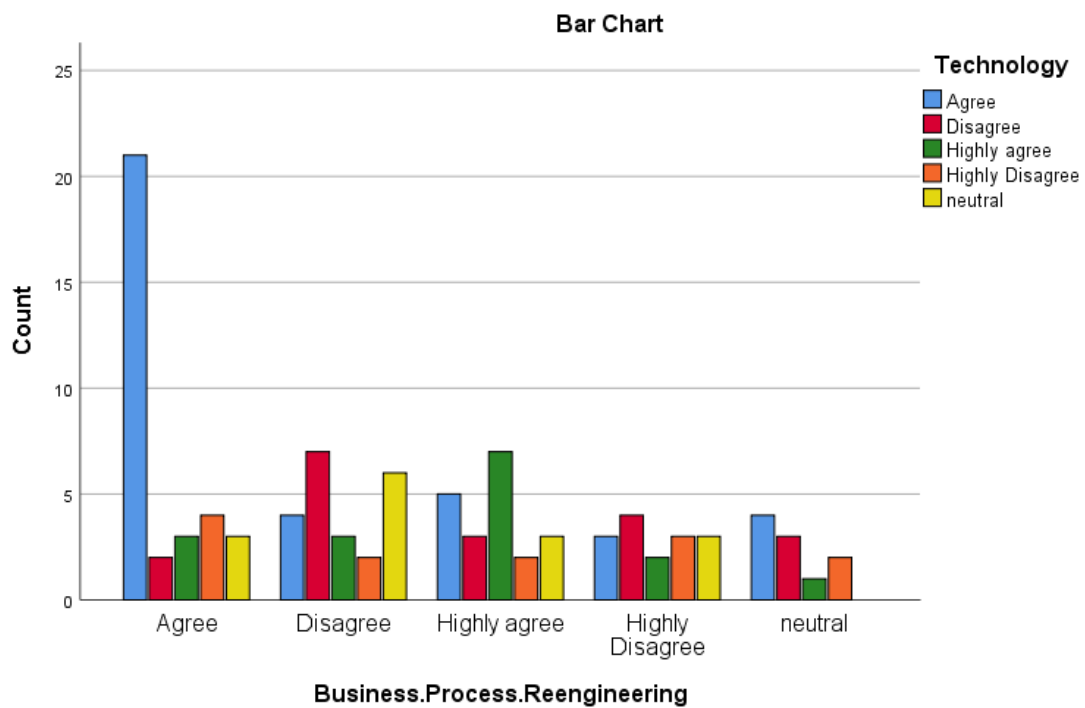


Figure 24: Similar measures in analyzing the relationship between the role of technology in developing reengineering applications in private sector organizations in the Kingdom of Saudi Arabia

3. The Role of Reengineering Applications in Reducing Errors in Private Sector Organizations in the Kingdom of Saudi Arabia

The Chi-Square test results examining the role of reengineering applications in reducing errors within private sector organizations in the Kingdom of Saudi Arabia demonstrate a statistically significant association between the implementation of reengineering and the reduction of operational errors. The Pearson Chi-Square value of 29.841 with 4 degrees of freedom and a p-value of .019 indicates that this relationship is significant, meaning that the likelihood of this association occurring by chance is very low. The Likelihood Ratio further supports this finding with a value of 31.826 and an even smaller p-value of .011, reinforcing the strength and reliability of the relationship. Importantly, the Linear-by-Linear Association statistic of 10.356 with a p-value of .001 indicates a significant linear trend between the variables, suggesting that as the extent or effectiveness of reengineering applications increases, the frequency or severity of errors correspondingly decreases in a consistent, predictable manner. This finding is particularly meaningful as it highlights not just the presence of a relationship but also a directional pattern, underscoring the efficacy of Business Process Reengineering (BPR) as a tool for improving accuracy and reducing mistakes in operational processes. The analysis, based on 100 valid cases, provides robust evidence that supports the value of reengineering efforts in enhancing process quality and minimizing errors, which is critical for improving overall organizational performance and customer satisfaction in the private sector context in Saudi Arabia.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	29.841 ^a	4	.019
Likelihood Ratio	31.826	4	.011
Linear-by-Linear Association	10.356	1	.001
N of Valid Cases	100		
a. 20 cells (80.0%) have expected count less than 5. The minimum expected count is 1.30.			

Table 26: Chi-square test for the role of reengineering applications in reducing errors in private sector organizations in the Kingdom of Saudi Arabia

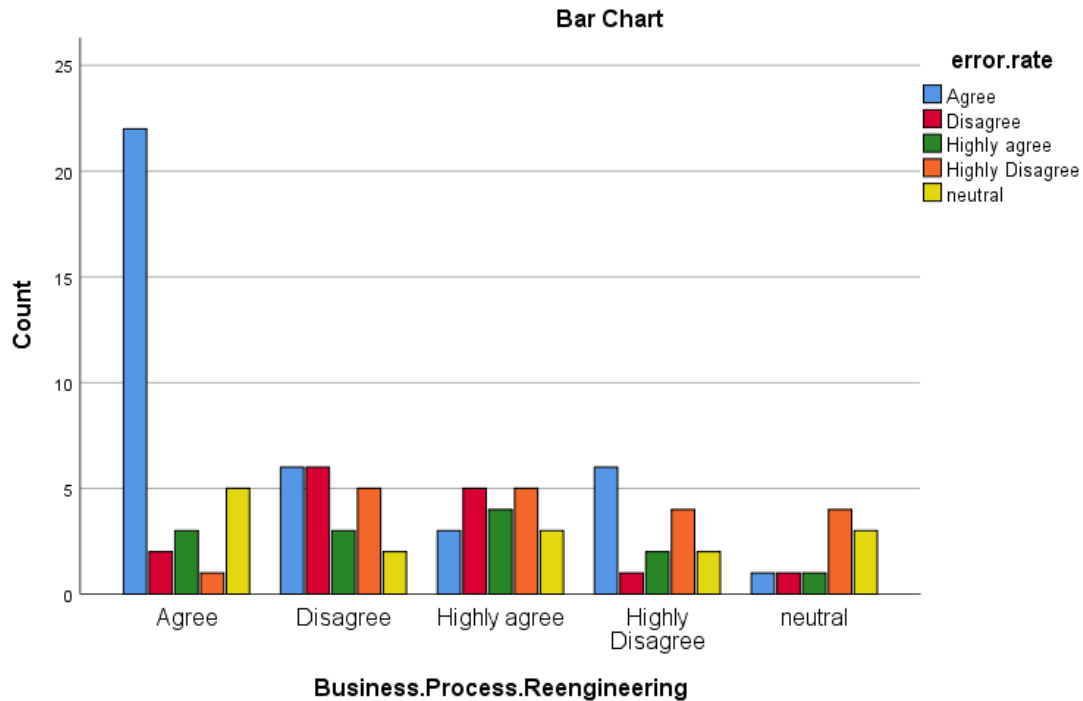


Figure 25: Similarity measures for analyzing the relationship between the role of reengineering applications and reducing errors in private sector organizations in the Kingdom of Saudi Arabia

- One-Way ANOVA

The One-Way ANOVA results provide significant insights into the factors influencing Business Process Reengineering (BPR) within private sector organizations in the Kingdom of Saudi Arabia. The table shows that the regression model, which includes the variables of adequate support, technology, and error rate, explains a significant portion of the variance in BPR implementation, as indicated by the F-value of 3.523 and a p-value of .000. This p-value, being less than the conventional threshold of 0.05, confirms that the combined effect of these predictors on BPR is statistically significant. The Sum of Squares values further illustrate the distribution of variance, with the regression accounting for 59.165 units and the residual (unexplained variance) accounting for 121.745 units out of a total of 180.910. This indicates that while the model explains a meaningful portion of the variance in BPR, there remain other factors not captured in this analysis. The degrees of freedom (df) also reflect the number of predictors (4) and the sample size (total df = 91), confirming the model's robustness in relation to the dataset.

The Bayes Factor Model Summary complements these findings by quantifying the strength of evidence in favor of the regression model compared to a null model (intercept only). The Bayes factor of 0.202 suggests moderate evidence supporting the alternative model, indicating that the variables included

adequate support, technology, and error rate collectively contribute to explaining changes in Business Process Reengineering, though not overwhelmingly so. The model's R value of 0.572 and R Square of 0.327 mean that approximately 32.7% of the variance in BPR can be explained by these predictors, which is a respectable effect size in social science research. The adjusted R Square of 0.234, slightly lower than R Square, accounts for the number of predictors relative to sample size, confirming the model's generalizability. Lastly, the standard error of the estimate at 1.18 reflects the average distance that observed values fall from the regression line, indicating moderate prediction accuracy. Together, these results underscore that adequate organizational support, technological adoption, and management of error rates play significant roles in shaping the effectiveness of Business Process Reengineering initiatives in the Saudi private sector.

ANOVA ^{a,b}					
Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	59.165	4	4.930	3.523	.000
Residual	121.745	87	1.399		
Total	180.910	91			
a. Dependent Variable: Business.Process.Reengineering					
b. Model: (Intercept), adequate.support, Technology, error.rate					

Table 27: One-way analysis of variance

Bayes Factor Model Summary ^{a,b}				
Bayes Factor ^c	R	R Square	Adjusted R Square	Std. Error of the Estimate
.202	.572	.327	.234	1.18
a. Method: JZS				
b. Model: (Intercept), adequate.support, Technology, error.rate				
c. Bayes factor: Testing model versus null model (Intercept).				

Table 28: Bayes Factor Model Summary

Discussion

The results obtained from this study offer significant insights into the factors influencing the successful implementation of Business Process Reengineering (BPR) in private sector organizations within the Kingdom of Saudi Arabia. Firstly, the high reliability scores (Cronbach's Alpha of 0.875) indicate that the measurement tools used to assess perceptions of BPR implementation, support, technology use, and operational errors are consistent and dependable. This reliability strengthens the validity of the conclusions drawn. The Chi-Square analyses reveal meaningful associations between the application of reengineering and key organizational factors, such as adequate support and technology adoption. Specifically, the strong association between BPR and organizational support underscores the critical role that management commitment and resource allocation play in fostering an environment conducive to successful reengineering. Similarly, the link between technology and BPR highlights how leveraging modern technological tools is essential to redesigning and optimizing business processes, allowing organizations to operate more efficiently and respond effectively to challenges. The significant linear relationship between BPR and error reduction confirms that as organizations deepen their reengineering efforts, operational mistakes decrease, thereby enhancing overall performance and customer satisfaction. These findings are consistent with existing literature that emphasizes the necessity of a supportive organizational culture and technological infrastructure to facilitate successful process innovation.

The ANOVA results further complement these findings by showing that adequate support, technology, and error rate reduction collectively explain a substantial portion of the variance in BPR effectiveness. This suggests that these factors are not isolated but rather interact in complex ways to shape the outcomes of reengineering initiatives. The moderate yet meaningful Bayes factor supports the inclusion of these variables in explaining BPR success, although it also signals that other unmeasured factors may contribute to the overall effectiveness. This aligns with the practical realities of organizational change, where culture, employee attitudes, and external market conditions also play influential roles. Indeed, the study highlights challenges such as employee resistance and difficulties in changing organizational culture, which can act as significant barriers to BPR implementation. Addressing these human and cultural factors is vital, as resistance can undermine even the most well-planned technical and managerial interventions. Effective communication, training, and inclusive participation in the change process are necessary strategies to mitigate such resistance and foster acceptance. In summary, this study illustrates that while technological capabilities and managerial support form the backbone of successful

BPR, the human dimension and organizational culture equally demand attention to realize sustained operational improvements. These insights provide valuable guidance for private sector organizations in Saudi Arabia aiming to enhance their competitiveness and operational efficiency through Business Process Reengineering.

Conclusion

Based on the results obtained from this study, it can be concluded that Business Process Reengineering (BPR) plays a vital role in addressing operational problems in private sector organizations within the Kingdom of Saudi Arabia. The findings clearly demonstrate that adequate organizational support, effective use of technology, and the reduction of operational errors are critical drivers for the successful implementation of BPR initiatives. The strong statistical significance across multiple analyses confirms that these factors collectively enhance the effectiveness of BPR, leading to improved process efficiency, higher quality outcomes, and increased customer satisfaction. The reliability of the data further strengthens the confidence in these conclusions, indicating that the measurement tools accurately captured the perceptions and experiences of participants regarding BPR implementation. These results align with global best practices that emphasize the importance of managerial commitment, technological advancement, and process accuracy as foundations for effective business transformation.

The study highlights the challenges organizations face in implementing BPR, particularly resistance from employees and difficulties in changing organizational culture. These barriers, which were strongly recognized by participants, indicate that successful reengineering goes beyond technical and procedural adjustments—it requires careful attention to the human and cultural dimensions of change. Without addressing employee concerns and fostering a supportive organizational environment, the benefits of BPR may be limited or short-lived. Therefore, it is essential for private sector organizations to integrate change management strategies, including clear communication, training, and stakeholder involvement, to overcome resistance and embed new processes sustainably. In conclusion, this study affirms that BPR, when supported by strong leadership, appropriate technology, and an engaged workforce, can significantly reduce operational inefficiencies and improve overall organizational performance. These insights provide a valuable roadmap for private sector organizations in Saudi Arabia seeking to enhance their competitiveness and operational excellence in a dynamic business environment.

Recommendations

Based on the results obtained, several recommendations can be drawn to improve the effectiveness of Business Process Reengineering (BPR) in private sector organizations in the Kingdom of Saudi Arabia. Firstly, organizations should ensure strong and sustained managerial support during BPR implementation. The significant role of adequate support highlighted in the findings suggests that leadership commitment is critical to overcoming challenges and fostering an environment conducive to successful process redesign. Managers must actively communicate the goals of reengineering, allocate necessary resources, and motivate employees to participate fully in the change process.

Secondly, the study emphasizes the importance of integrating modern technology into BPR efforts. Organizations should invest in up-to-date technological tools that facilitate process automation, reduce operational errors, and improve coordination across departments. Given the positive association between technology use and BPR effectiveness, adopting suitable technology solutions will enhance process efficiency and accuracy. Thirdly, addressing employee resistance and cultural barriers is essential. Since a significant portion of participants acknowledged difficulties in changing organizational culture and resistance to change, organizations should implement comprehensive change management strategies. These could include involving employees in decision-making, providing adequate training and support, and fostering open communication to reduce fears and build acceptance. Finally, continuous monitoring and evaluation of BPR initiatives are recommended to track progress, identify bottlenecks, and make necessary adjustments. By following these recommendations, private sector organizations in Saudi Arabia can better leverage BPR to resolve operational problems and achieve sustainable improvements in performance and customer satisfaction.

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Appendices

Questionnaire

Questions	Answer				
1- General questions					
Age	20-30	30-40	40-50	50-60	60+
Gender	Male	Female			
Degree	Secondary school certificate	Bachelor's degree	Postgraduate degree	Master's	Doctorate
2- Survey questions					
The organization is radically redesigning its operations to improve performance	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
The organization is applying modern methodologies to restructure core processes	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Employees are involved in the reengineering of procedures	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Management provides adequate support for the implementation of the reengineering process	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Technology is being effectively used to improve processes	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Administrative processes in the organization were slow and repetitive	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
There were problems with workflow between different departments	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
The error rate in implementing processes was high	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Customer satisfaction with the quality of services provided was low	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Communication between departments was ineffective	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
The implementation of BPR reduced the time it took to complete processes	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
The implementation of BPR reduced operational errors	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
BPR helped improve coordination between different departments	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
The implementation of BPR increased customer satisfaction	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
The implementation of BPR reduced operating costs	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree

The organization faced employee resistance when implementing BPR	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
It was difficult to change the organizational culture	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree

✓ https://docs.google.com/forms/d/1v8ri2_VLO_OqPtOguviL7cbUzteAw0q8FNBN66IxzNI/edit