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The Impact of Business Process Reengineering on the Quality of Banking Service: An Analytical Study in Public Commercial Banks in Iraq

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Abstract:

The current research aims to test the impact of business process reengineering on the quality of banking services in public commercial banks owned by the state in Iraq. It also aims to identify the level of interest of AL- Rafidain Bank, Rashid Bank, and Trade Bank of Iraq in the research variables, in an attempt to provide a set of recommendations to contribute to improving managerial practices. The research adopted a descriptive-analytical approach in completing its chapters and sections. The study was conducted in public commercial banks in Iraq, which constituted the research population. The purposive stratified sample consisted of 170 respondents from the leadership positions of the three banks (branch managers, department managers, assistant general managers, and general managers). They were given the research instrument "questionnaire," of which 150 were valid. The questionnaire was supplemented with interviews and additional data. The researchers analyze the preliminary data, relying on descriptive and analytical statistical methods. The statistical tests included normality tests, exploratory factor analysis, confirmatory factor analysis, validity and reliability tests, mean, coefficient of variation, standard deviation, simple linear regression, and multiple regression to test the hypotheses representing the main research questions. The research findings showed a statistically significant impact of business process reengineering on the quality of banking services.

Paper type: Research paper.
Keywords: Business Process Reengineering, the Quality of Banking Service, Public Commercial Banks in Iraq.

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1.Introduction:

In the ever-evolving landscape of the financial industry, the quality of banking services has emerged as a pivotal factor influencing customer satisfaction, loyalty, and the overall success of financial institutions. One approach that has gained significant attention in recent years for enhancing service quality is Business Process Reengineering (BPR). BPR involves the radical redesign of core business processes to achieve substantial improvements in critical performance measures such as efficiency, Impactiveness, and customer experience. This research delves into the potential Impacts of implementing BPR in the context of the Iraqi banking sector. The study specifically focuses on three prominent government banks in Iraq: Al-Rafidain Bank, Al-Rasheed Bank, and the Trade Bank of Iraq. The research aims to investigate how various dimensions of BPR , encompassing aspects such as top management commitment, personnel management, technological infrastructure, readiness for change, centralization, and formalization, contribute to enhancing the quality of banking services. The quality of banking services, characterized by dimensions including empathy, assurance, reliability, responsiveness, and tangibility, is a critical factor in achieving customer satisfaction and loyalty. This research seeks to assess whether the adoption of BPR practices aligns with these dimensions and ultimately leads to a noticeable improvement in the overall quality of banking services provided by the selected government banks. To achieve the research objectives, an analytical research approach will be employed. The study will entail collecting both quantitative and qualitative data through surveys, interviews, and relevant documentation. Quantitative data will enable the measurement of service quality dimensions and the identification of any potential correlations with the implemented BPR dimensions. Qualitative data, on the other hand, will provide a deeper understanding of how these BPR dimensions are implemented and perceived within the organizational context. By investigating the impact of BPR on the quality of banking services within the framework of the Iraqi government banks, this research aims to shed light on the potential benefits and challenges associated with adopting BPR practices in a critical sector. The findings of this research are expected to contribute valuable insights to the field of service quality enhancement, organizational change, and process reengineering, while also providing practical recommendations for financial institutions aiming to improve their service quality and overall competitiveness, Based on the information provided,

1.1 Literature Review:

Many studies explored the quality of banking service. Taap et al (2011) investigated and compared the quality of services offered by traditional and Islamic banks in Malaysia. It utilized a five-dimensional model to measure customer perceptions of service quality. Data was collected from 287 banking customers in two major cities through self-report questionnaires the study aimed to assess and compare customer perceptions of service quality between these two types of banks in the Malaysian context. Al-jazzaz (2017) evaluated in his study the differences in perceptions of banking service quality among demographic subgroups of consumers of Islamic and traditional banking services in Jordan. Shankar and Jebarajakirthy (2018) used a comprehensive mediating mechanism to enhance customer loyalty towards electronic banking service platforms through the practices of Electronic Banking Service Quality (EBSQ). The main dimensions of EBSQ include reliability, website design, privacy, security, customer service, and support data was collected through structured questionnaires from a sample of 1028 respondents who were users of electronic banking services in India. The results indicated that in terms of the dimensions of EBSQ, reliability along with privacy and security played a significant role in enhancing customer loyalty towards electronic banking services. A study conducted by Falih et al (2020) identified the obstacles and weaknesses faced by the government banking sector in Iraq.

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There are numerous studies explored BPR such as Hesson (2007) investigated overhauling the application processes of the naturalization and Residency Department in Al Ain City and creating an electronic version of the redesigned processes .For instance, a study by Awolusi and Onigbinde (2014) was conducted using an experimental research methodology. The study utilized a self-administered questionnaire and involved 650 respondents, comprising senior employees and administrators randomly selected from eight oil and gas companies in Nigeria. These companies were redesigned using the principles of BPR. The results of the study demonstrated improvements in operational and organizational performance following the implementation of BPR. The study highlighted a significant reduction in operational and organizational weaknesses, with most areas transitioning from a critical state to significantly improved levels after the application of BPR. This was exemplified in a case study that centered on the transformation of companies, employee communication, reengineering of work processes, employment, incentives, and the incorporation of consumer input based on national quality standards. Many studies have addressed BPR in the Iraqi banking sector. Nkurunziza et al (2019) investigated the examination of the interplay between organizational adaptability, institutional leadership, and the performance of BPR. This examination utilized the validated complexity theory framework within the context of a developing economy. A study conducted by Falih et al (2020) identified the obstacles and weaknesses facing the government banking sector in Iraq.

Many studies link the two research variables, as an example, Mishra and Mahanty (2014) investigated the relationship between process reengineering and quality in project management to attempt to find good values of onsite– offshore team strength; number of hours of communication between business users and onsite team and between onsite and offshore team to reduce cost and improve schedule for re-engineering projects in global software development environment. Chepkorir (2011) conducted a master's thesis in business administration at Kenyatta University, addressing the impact of BPR on customer service. The study investigated to verify the contribution of BPR to customer service and consequently achieving specific objectives. By utilizing a descriptive approach, the study's results indicated that BPR plays a significant role in enabling the provision of high-quality customer service.

The research problem can be formulated as follows:
Does the implementation of BPR impact the quality of banking services in Iraqi public commercial banks?
The research can achieve the following objectives:

- Assess the level of interest in the study variables (service process reengineering, banking service quality) by a research sample representing Rafidain, Rasheed, and the Trade Bank of Iraq.
- Determine the type of relationship between the variables and identify their direction.
- Identify suitable tools and methods for analyzing the relationship and impact between (service process reengineering and banking service quality).
- Provide practical solutions for the research sample banks to improve their operational methods, service delivery, and adjust their decision-making process to implement reengineering, and enhance the quality of services provided to customers.

2.Material and Methods :

2.1 Research Methodology:

The analytical-descriptive approach is considered the most appropriate methodology for obtaining comprehensive and accurate information that reflects the real world and contributes to the analysis of its phenomena. Research data were processed using the Statistical Package for Social Sciences (SPSS) and Structural Equation Modeling (SEM) in Amos. The research methodology consists of five sections, as outlined below

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2.2 Research Scope:

• **Geographical Scope:** The practical implementation of the research was confined to Al-Rafidain Bank, Al-Rasheed Bank, and the Trade Bank of Iraq.
• **Temporal Scope:** The research encompassed the period of the year 2022.
• **Conceptual Scope:** The research involved two variables— the quality of banking service as the independent variable, comprising dimensions including Reliability, Security, Tangibility, Empathy, and Responsiveness. The dependent variable was BPR, divided into dimensions including process redesign, efficiency enhancement, cost reduction, customer experience improvement, and technological implementation.
• **Personnel Scope:** The research engaged senior management.

2.3 Research Hypotheses:

A hypothetical research framework, depicted in Figure 1, was formulated in alignment with the study's objectives and research problem following a comprehensive examination of the literature concerning research variables and their respective dimensions, within this framework, there exists one primary hypothesis:

H. There is a statistically significant impact of the quality of banking service on business process reengineering. Derived from this overarching hypothesis, six subsequent hypotheses arise:
H1: Top management commitment has a statistically significant impact on the quality of banking service.
H2: Human resources has a statistically significant impact on the quality of banking service.
H3: Technology infrastructure has a statistically significant impact on the quality of banking service.
H4: Change readiness has a statistically significant impact on the quality of banking service.
H5: Centralization has a statistically significant impact on the quality of banking service.
H6: Formalization has a statistically significant impact on the quality of banking service.

3.3 Hypothetical Research Framework:

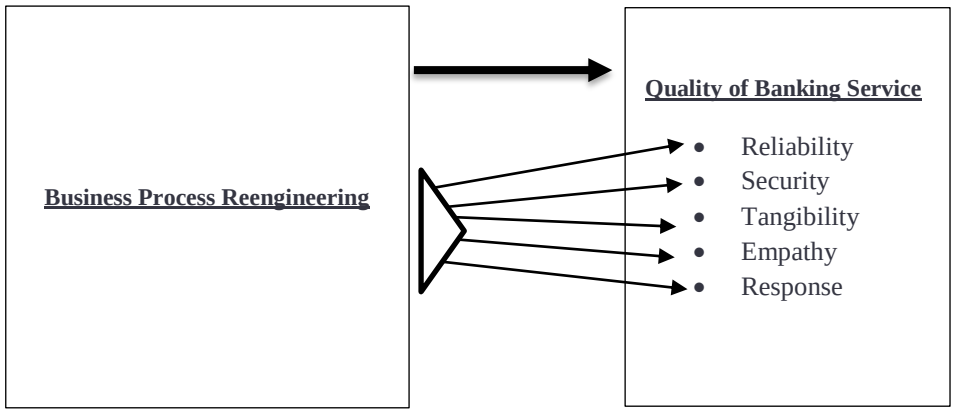

Figure 1 : A hypothetical research framework
The source: Developed by the researchers based on provided information.

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2.4 Measurement tool:

The survey comprised two primary variables, namely, "the Quality of Banking Service" and "Business Process Reengineering." The independent variable, "Business Process Reengineering," was assessed across six dimensions: senior management commitment, human resources, technology infrastructure, readiness for change, and central formalization, encompassing a total of 31 items. On the other hand, the dependent variable, "the Quality of Banking Service," was evaluated across five dimensions: reliability, response, tangibility, security, and empathy, involving a total of 22 items. This resulted in a combined total of 53 questionnaire items, as indicated in Table 1.

Table 1: The items of the questionnaire according to the criteria and model chosen for the research

The variable	The source	Items	
Business Process re-engineering	(Hashem, 2019)	1-6	Senior management commitment
		7-12	Human resources
		13-17	Technology infrastructure
		18-23	Readiness change
		24-27	Centralization
		28-31	Formalize
The quality of banking service	(Fragoso and Espinoza, 2016)	32-35	Reliability
		36-39	Response
		40-43	Tangibility (reliability)
		44-49	Security
		50-53	Empathy

The source: Developed by the researchers based on provided information.

2.5 The research community and its sample:

The researchers analyzed the demographic variables (gender, age, educational degree, job position, and years of service) using descriptive statistical analysis. The researchers employed percentages and frequencies for the sample of 150 participants. Table 2 presents the findings for a sample of bank leadership as follows:

Gender-based distribution: The male category constituted the majority, accounting for 70% of the sample (105 participants), while the female category comprised 30% (45 participants) of the total 150 participants.

Age Categories Distribution: The age category above 50 to 40 years recorded the highest number of observations, with 62 participants and a percentage of 41%. The age category of 40 to 30 years came second with a percentage of 25% and 38 participants. The third position was held by the age category above 50 years, accounting for 25% and 37 participants. The age category below 30 years ranked fourth with 13 participants, making up 9% of the sample.

Educational Degree Distribution: The participants in the research sample held a range of academic qualifications from undergraduate to advanced degrees. The highest percentage was attributed to the bachelor's degree category, accounting for 57% (85 participants). The second rank was occupied by doctoral degree holders, representing 18% (27 participants), followed by those with a higher diploma, constituting 14% (22 participants). Master's degree holders ranked fourth, making up 11% (15 participants).

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Job Position Distribution: The department head position accounted for the majority, with 75% (113 participants) of the research sample. Following this, the department manager category comprised 21% (31 participants). Assistant general managers and general managers were grouped, each representing 2% (3 participants) of the sample. Years of Service Distribution: Participants with 20 to 15 years of service held the first position with 47% (71 participants). The second rank was occupied by those with 15 to 20 years of service, constituting 26% (39 participants). The third position was attributed to participants with 5 to 10 years of service, making up 13% (20 participants). Participants with more than 25 years of service ranked fourth, representing 6% (9 participants). The fifth position was held by those with 20 to 25 years of experience, accounting for 5% (7 participants). Participants with less than five years of experience ranked sixth, making up 3% (4 participants).

Table 2: The demographics of the research sample:

Demographic Factors	Category	Frequency	Percentage
Six	Male	105	70%
	Female	45	30%
Age	30 years and under	13	9%
	31 – 40	38	25%
	41- 50	62	41%
	51 and over	37	25%
Job position	Directorate Director	3	2%
	Associate director	3	2%
	Department manager	31	21%
	Unit manager	113	75%
Academic Qualification	Bachelor	85	57%
	High Diploma	22	14%
	Master's	16	11%
	PHD	27	18%
	4 years and under	4	3%
Experiences	From 5 to 10 years	20	26%
	From 11 to 15 years	39	13%
	From 16 to 20 years	71	47%
	From 21 to 25 years	7	5%
	More than 25 years	9	6%

The source: By the researchers, according to the SPSS.

2.6 The quality of banking service:

The primary objective of banks is customer satisfaction, and competition among banks revolves around achieving this goal more efficiently andeffectively. Hence, the concept of quality has become highly significant in banking organizations, as it is a critical factor in achieving customer satisfaction. (Mahdi and Jathir,2020) In recent years, the importance of applying the concept of quality in the service sector has increased. The challenge lies in the difficulty of measurement due to its intangibility, as customers cannot physically inspect or evaluate the service before purchase. Evaluation typically occurs during the service delivery process. (Nouri,2016).

The concept of service quality is fundamentally "performance-based," which is subjective and cannot be objectively measured. It's difficult to establish specific specifications for it, leading to varying definitions of the term quality from one author to another. This often relies on the individual providing the definition, the measures implemented within the organization, and the context in which it's considered (Bebli, 2015). Quality in banking services is the outcome of the comparison that customers make between their expectations of a service and their perceptions of how that service is delivered (Sasser et al, 1978; Gronroos, 1984;

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Caruana et al, 2000). In general, managerial concepts are based on philosophical theories that explain their core ideas and principles. Quality, like other concepts, has been explained through various theories that trace back to different studies, starting from its early adoption stages to its diagnosis and the formation of its final understanding. Below are some of the theories that have explained quality in its general sense:

2.6.1Cognitive Dissonance Theory:

Cognitive Dissonance Theory is a social psychology theory that suggests people seek consistency between their beliefs, attitudes, and behaviors. When individuals act in a way that creates contradictions in their beliefs, they experience discomfort and internal disturbance. In response to this discomfort, individuals may change their perceptions or beliefs related to the circumstances to restore harmony between their actions and beliefs. The three general methods individuals may use to resolve the conflict between their behavior and beliefs are as follows (Bourne and Russo, 1998)

- Changing their beliefs to align with their behaviour.
- Changing their future behaviour to reduce discomfort through learning.
- Acquiring new information that supports a more positive view of their conflicting actions, providing a logical basis for the contradictory behaviour.

Literature has indicated that this cognitive dissonance may influence post-consumption perceptions of service quality. It is suggested that post-consumption dissonance may be related to subsequent experiences, and the literature also suggests that one of two experiences may reveal patterns related to the relationship between perceptual change and dissonance

2.6.2Assimilation Theory:

Assimilation theory adopts the concept of consumer satisfaction as an independent variable, with dimensions centered around the final customer's perception of what they see and feel in the banking organization, from the moment they enter until they complete the service. It goes beyond specific aspects such as time, employee appearance, empathy, responsiveness to their desiresو and the extent to which all these match customer expectations. The gap between what the customer receives and what they expect beforehand governs the extent to which the organization applies quality. (Festinger, 1957).

2.6.3Assimilation and Contrast Theory:

Hovland et al, (1957) introduced another social-psychological theory addressing experience-based changes that lead to perception. According to this theory, an individual's initial perception acts as an anchor in determining the degree of contrast for the experience with newly acquired information. The minimum level of contrast is the minimum level of acceptance of the service, termed "the individual's acceptance domain," and it leads to changing the individual's perception based on new information. However, highly contrasting information can result in contrasting impacts on the individual's (customer's) perceptions. This theory can be applied to bank customers, where if their bank provides a much lower quality of service than they expected and are willing to accept, the contrast between their perception of service quality and the perceived quality will contribute to an increased negative perception of their banking experience or due to their high expectations. Thus, their perception of the bank's service quality will influence their preference for it, leading to lower satisfaction.

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2.6.4General Negativity Theory:

The General Negativity Theory examines the impact of uncertain expectations on consumer perception and satisfaction. The theory posits the existence of an upper threshold for unfulfilled quality expectations in services. After satisfaction with the provided service, negative perceptions may remain, producing negative emotions. These negative feelings, according to Carlsmith and Aronson (1963), can affect the overall sector when they transform into a phenomenon.

2.6.5Value Perception Theory:

The Value Perception Theory considers both dissatisfaction and individual values when determining satisfaction. This theory defines satisfaction as the difference between the expected value of services and the perceived actual value. It emphasizes the perceived importance of value to the individual when assessing satisfaction with a service. Dissatisfaction occurs only when there is a significant gap between expectations and perceived value, especially if the value is highly important to the individual, This theory provides a quantifiable measure of satisfaction based on individual differences in service recipients. (Al-jazzazi,2017).

2.6.6Balance Fairness Theory:

Some related theories address changes in concepts and behaviors based on social or commercial exchange relationships. Equity theory posits that relationships between individuals are built on a form of social or commercial exchange. According to equity theory, satisfaction is determined by the balance between each party's costs (inputs representing the effort and resources each party invests in the exchange) and benefits (outputs representing the gains from the exchange process). (Al-jazzazi,2017)

2.7 Dimensions of banking service quality:

The model introduced by Parasuraman et al, (1988) utilized a 22-item questionnaire to derive the five most common dimensions of service quality, as follows:

- **Reliability:** This dimension refers to the extent to which service quality continues without any defects or deficiencies in various aspects.
- **Response:** It signifies the level of responsiveness to customer requests and awareness of changes that may affect them in the near and distant future.
- **Security:** Security means the ability to face financial risks on both internal factors, such as liquidity,
- **Empathy:** Empathy entails detailed attention to and access to customer information by actively listening and understanding their specific needs.
- **Tangibility:** Tangibles relate to the physical aspects of facilities, equipment, tools, and even the appearance of service providers.

Arredondo et al (2007) further explained that these five sub-dimensions are divided into two parts, with the first part aimed at measuring expected service and the second part intended to measure actual service (as perceived by the customer). These dimensions have gained broad acceptance among researchers because they represent a summary of various other dimensions.

2.8 Business process re-engineering:

The origins of BPR can be traced back to the management schools that emerged in the 19th century. The pioneer of this intellectual school, Frederick Taylor, employed the reengineering approach to discover the best practices of work performance through the reengineering of processes to maximize productivity. (Zidan and Ali,2019)

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BPR has been defined by Hammer and Champy (1993) as the fundamental rethinking and radical redesign of business processes using information technology to achieve significant improvements in key areas of performance such as service, quality, cost, and responsiveness. According to Attaran (2003), the term "reengineering" first appeared in the field of information technology and then evolved from its initial focus on information technology to a broader process of change that encompassed organizations of different natures.

BPR can help organizations during crises by making them more adaptable to market conditions. By accessing innovative, customer-focused, and profitable processes, organizations can navigate through crises more Impactively (Kuhil, 2013). Each organization should assess its situation to determine whether reengineering is suitable and whether it can contribute to an enhanced strategy. Some strategic indicators that might require reengineering include:

- The organization realizes that competitors will gain advantages in terms of cost, speed, flexibility, or service quality.
- The organization adopts a new vision or strategy that necessitates building Impactive operational capabilities.
- The need to re-evaluate strategic options, enter new markets, or redefine products and services.
- The core operating processes in the organization rely on outdated assumptions and technologies.
- Current strategic objectives appear unrealistic.

Market changes such as market share loss, new competition, shorter product life cycles, and new technologies (Kuhil, 2013). BPR can help organizations respond positively to these indicators and adapt to the changing market landscape, making them more resilient and better equipped to thrive in crises. Reengineering is defined as a radical, unrestricted transformation of the business, achieved through reshaping all business processes, technologies, and management systems, including organizational structure as well as internal and external values, to achieve significant performance leaps throughout the organization's work (Eke and Achilike, 2014). Ringim et al, (2013) viewed reengineering as a process of radical transformation that does not encourage the bureaucratic structure in the organization. Davenport and Short (1990) defined reengineering as a set of relevant logical tasks conducted to create specific, clear, and concise work procedures (Okereke et al, 2012). Despite process reengineering emerging as an administrative and organizational approach in the private sector to maintain a successful business model amid increasing global competition (Fetais et al, 2022) nothing is preventing its application in public sector institutions. Particularly in Iraq, these institutions suffer from many non-value-added processes in their value chains. The researchers found an opportunity to apply reengineering in several Iraqi public banks to reduce costs and enhance the overall value of the institutions.

2.8.1Business process reengineering theories:

The concept of reengineering traces back to its roots in the theory of Resource-Based View (RBV), which specifically revolves around the idea of maximizing value by leveraging external opportunities through the innovative utilization of existing resources, rather than attempting to acquire new resources. Resources are given a central role in aiding organizations to achieve higher organizational performance. The resource-based perspective has been a shared interest among management Researchers, and the essence of the resource-based model lies in attaining a competitive advantage when resources are exclusively owned by the organization. (Musonda and Okoro, 2020) Through this ownership, unique capabilities are developed as organizations possess diverse sets of resources: tangible and intangible assets and capabilities. No two organizations possess identical resources, and the quality of an organization's activities and operations is determined by the resources it possesses. Naturally, an organization will be positioned for success if it has a superior and more suitable inventory of resources relevant to its operations and strategy. (Holdford, 2019)

Ultimately, competitive advantage can be attributed to the ownership of valuable resources that enable the organization to perform its activities better than its competitors. Organizational capabilities are defined by a complex combination of assets, resources, and processes that organizations employ to transform inputs into outputs through a series of value-adding processes, allowing long-term success. Achieving these goals necessitates radical and impactive redesign processes, along with consistent leadership to apply the methodology of BPR in this manner. (Ringim et al, 2013). Reengineering is the essence of the business process by focusing on functional divisions and reorganizing across basic processes, all managed by multiple business teams. (Khalaf, 2015)

2.8.2Business Process Reengineering Framework:

Adefulu et al (2020 argued that continuous cost management is essential for the sustainability of any business in modern society. Business operations are defined as a set of activities that transform inputs into outputs using individuals and equipment. Through logically organized activities that convert inputs into outputs, BPR primarily focuses on redesigning and eliminating sections and processes that do not add value to the required ongoing process chain, as well as modifying processes to achieve the desired outcomes. As a result, innovative new methods are developed for arranging business activities according to selected BPR methodologies. Therefore, the reengineering process, based on value chain analysis, fundamentally works on redesigning processes, trimming costs, and necessary timings to ensure the satisfaction of the ultimate beneficiary. Examples of applied patterns in reengineering include the framework provided by (Wardhanie and Amelia, 2022) as illustrated in the following table:

Table 3: Business Process Reengineering Framework

Outputs	Activities	Steps
Information about value-added and non-value-added	Conduct in-depth interviews with top	Identify the genuine need for change
Processes	executives in the organization	Bring experts and teams together
Data on meeting results and partnerships	Monitor potential partnerships	Bring experts and teams together
Information about inefficient processes	Study documents and interview results	Create Key Performance Indicators (KPIs)
Information about key performance indicators, and	Deep analysis and decision-making	Apply to reengineer and compare results
creation of process maps	In-depth analysis and decision-making	Information about key performance indicators, and the creation of process maps.

(Wardhanie and Amelia, 2022)

In this context, Biazzo (1998) adds that BPR falls within the third level among five levels in a higher-level process related to "Business Restructuring" according to the emerging challenge of aligning information technology and strategy (Venkatraman, 1991). The five levels are as follows:

Level One, Local Exploitation: Involves utilizing information technology within the organization's functions. Typically, it involves application development leading to process efficiency improvements.

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Level Two, Internal integration: This represents a logical extension of level one, meaning that potential information technology capabilities have been sought within the organization for activities that occur within the organizational processes, with the potential to impact efficiency and impactiveness.
Level Three, BPR: Reengineering is undertaken to fully leverage information technology capabilities. Unlike level one and level two, reengineering reflects an active, planned, and conscious effort to align organizational processes and information technology.
Level Four, Business Network Redesign: Involves using information technology to redesign the nature of exchanges between organizations that are part of a business network.
Level Five, Business Scope Redefinition: This refers to opportunities for information technology to rethink the organization's core mission (Scott-Morton, 1991).

2.8.3Dimensions of business process reengineering:

- **Senior Management Commitment:** Building on the leadership role of senior management in the bank, the success of process reengineering practices depends on their commitment to change and the implementation of new programs within the organization. Additionally, they are responsible for creating an appropriate internal environment that will fully support the success of the process reengineering program (Grant, 2002).
- **Human Management:** This refers to human resource practices that support the implementation of service process reengineering in the bank. When implementing any new system or program, especially one that relies on process reengineering, it is crucial to utilize the best skills and capabilities of the workforce. Therefore, personnel management becomes an essential factor in developing the skills of employees in the organization, which, in turn, supports successful efforts (Ahmad et al, 2007).
- **Information Technology Infrastructure:** The extent to which the bank possesses an appropriate technological foundation, including information technology used in electronic platforms, can significantly impact the success of service process reengineering. The technological infrastructure is vital for implementing and sustaining new processes (Xia and King, 2004).
- **Readiness for Change:** Readiness for change refers to evaluating the mechanisms of preparedness for change at both organizational and functional levels. According to Pettigrew (1992), readiness for change is "the process of changing procedures, responses, and interactions of various interested parties during an organization's move from its present to future state. Change management is defined as "the ongoing renewal process of an organization's direction, structure, and capabilities to serve the changing needs of external and internal customers continuously."
- **Centralization:** Centralization assesses the concentration of decision-making authority concerning functional levels within the bank. Organizations can be classified into two types of organizational structures: bureaucratic or mechanistic organizations characterized by a high degree of centralization and formalization and low complexity, and organic organizations with a lower degree of centralization, formalization, and higher complexity (Nahm et al, 2003).
- **Formalization:** Formalization refers to the extent to which rules, procedures, and regulations are used and followed within the bank during service process reengineering. Generally, it is closely related to centralization, with higher centralization adding a more formalized aspect to the chain of authority. (Hashem, 2019)

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3.Discussion of Results :

This section intends to elucidate the outcomes derived from both descriptive and explanatory statistical analyses of the research variables and their respective sub-dimensions. The findings are thoroughly examined and interpreted, assessing potential limitations by scrutinizing the responses of the research sample to each paragraph. The focus lies on gauging their inclination toward adoption and implementation, and subsequently, presenting the outcomes.

3.1 Descriptive Statistics:

Table 6 displays the computed descriptive statistical measures, including the mean, standard deviation, variance, and coefficient of difference, corresponding to each segment. The responses obtained from the sample were organized by the inquiry variables. Additionally, the relative weighted average, known as the dimension availability ratio, was calculated. This ratio is derived by dividing the arithmetic mean by the maximum value within the Likert scale, followed by multiplication by 100. Moreover, the extent of disparity was determined by subtracting the dimension availability percentage from 100, as outlined by Mahmoud (2022).

Also, Tables 4 and 5 show the coding for the dimensions of the variables of the quality of banking service and business process re-engineering, which were utilized in Table 5 for calculating the correlations between the variables.

Table 4: Business Process Re-engineering coding

Cod	Dimension
X1	Senior Management Commitment
X2	Human Resources Management
X3	Technology Infrastructure
X4	Readiness for Change
X5	Centralization
X6	Formalization

Table 5: The quality of banking service coding

Cod	Dimension
Y1	Reliability
Y2	Tangibility
Y3	Security
Y4	Empathy
Y5	Response

Table 6: The descriptive statistics

Variables	**Descriptive Statistics**						
	Dimensions	**Items**	**M**	**S. D**	**C.V**	**Average relative weight**	**Arrangement**
Business Process Re-engineering	**Senior management commitment**	X1	3.98	0.446	11.22	79.6	1
	Human Resources	X2	3.65	0.586	16.08	73	5
	Technology infrastructure	X3	3.91	0.577	14.78	78.2	3
	Readiness change	X4	3.95	0.636	16.1	79	4
	Centralization	X5	3.87	0.676	17.47	77.4	6
	Formalize	X6	3.99	0.511	12.80	79.9	2
Business Process Re-engineering			**3.89**	**0.497**	**12.78**	**77.8**	**FIRST**
The quality of banking service	**Reliability**	Y1	3.60	0.800	22.22	72	5
	Response	Y2	3.64	0.706	19.36	72.9	3
	Tangibility (reliability)	Y3	3.72	0.782	21.02	74	4
	Security	Y4	3.80	0.702	18.48	76	2
	Empathy	Y5	3.82	0.693	18.14	76.4	1
The quality of banking service			**3.72**	**0.7366**	**17.4**	**74**	**SECOND**

The independent variable for the current research, according to the title, is process reengineering, and it was measured through its dimensions (Senior management commitment, human resources, technology infrastructure, readiness change, centralization, and formalization), as it was represented by 31 items, and the analysis concluded. The descriptive statistics for the process reengineering variable indicated that it obtained a high weighted mean (3.89), indicating that banks have a financial and administrative approach that relies heavily on human and technical resources to redesign their basic processes to improve them. Therefore, these behaviors receive relative attention of 77.8%, with a relative coefficient of variation (12.78%), to obtain a standard deviation of 0.497.

The dependent variable was measured through five sub-dimensions (reliability, response, tangibility, security, and empathy), as the dimension represents 22 items, and the analysis of banking service quality data concluded because it obtained a high arithmetic mean (3.72), resulting from the banks in the research sample having a measure of the extent to which the services provided by banking institutions live up to customer expectations, that is, it is a measure of the difference between what they provide and the customer's expectations, which he prefers to get in the end, as it paid attention to this practices were good (74%), with a relative coefficient of variation (17.4%), while the variable overall obtained a standard deviation of 0.646.

3.2 The correlation hypothesis analysis :

The current axis focuses on evaluating the correlation of research variables business process re-engineering and the dynamic quality of banking service, as Table 7shows.

Table 7: The correlation analysis:

Dimension	Y1	Y2	Y3	Y4	Y5	Y
X1	.394**	.592**	.251**	.543**	.525**	.518**
X2	.667**	.660**	.499**	.472**	.469**	.633**
X3	.624**	.708**	.526**	.758**	0.7	.751**
X4	.538**	.728**	.539**	.682**	.623**	.704**
X5	.612**	.631**	.608**	.718**	.646**	.731**
X6	.532**	.781**	.604**	.652**	.585**	.715**
X	.655**	.787**	.594**	.740**	.685**	.785**

The achievement of the independent variable, BPR, and its dimensions (Senior management commitment, human resources, technology infrastructure, readiness for change, centralization, and formalization), reveals positive linear relationships with the dependent variable, the quality of banking service, and its dimensions (reliability, response, tangibility, security, and empathy). These relationships are statistically significant ($p < 0.002$) with a positive correlation.

3.3 Testing influence relationships and verifying research hypotheses:

A. The results from Table 8 indicate that the computed value of (F) is 84.580, which is higher than the tabulated value (3.9065) at a probability level of 0.05 and degrees of freedom (149). This suggests the statistical significance of the model, making it a statistically acceptable model. Additionally, there is a coefficient of determination (R-squared) of 0.635 and an adjusted R-squared of 0.627, indicating that the combined dimensions of BPR (Top management commitment, personnel management, technology infrastructure, change readiness, centralization, and formalization) explain approximately 62.7% of the variance in the quality of banking service. The remaining 37.3% of the variance is attributed to other untested variables. This model is considered strong for explanation.

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B. Furthermore, a positive impact of the personnel management dimension on Quality of Banking Service is evident with a coefficient of 0.222 and a probability value of 0.003. The calculated (T) value is 2.971. Similarly, the technology infrastructure dimension has a positive impact on the quality of banking service with a coefficient of 0.393 and a probability value of 0.000, with a calculated (T) value of 3.885. Additionally, the centralization dimension shows a positive impact on the quality of banking service with a coefficient of 0.319 and a probability value of 0.000, with a calculated (T) value of 4.015.
C. However, the research sample was unable to demonstrate the significance of the impacts of top management commitment, change readiness, and formalization on the quality of banking service, as their probability values exceeded (0.05). Overall, the main hypothesis (BPR has a significant impact on the quality of banking service) is accepted, as indicated by the prediction equation for the quality of banking service in terms of BPR.

Table 8: The relationships and verifying research hypotheses

Independent Variable	Quality of banking service						
	F	β	R^2	A R^2	T	P	α
Senior Management Commitment	84.58	0.021	0.635	0.627	0.311	0.757	0.138
Human Resources Management		0.222			2.971	0.003	
Technology Infrastructure		0.393			3.885	0	
Readiness for Change		0.021			0.19	0.85	
Centralization		0.319			4.015	0	
Formalization		0.136			1.423	0.157	

• The researchers finds that the calculated (F) value for the model (42.169), which is greater than its tabulated value (3.9065), with a probability value (0.05) and a degree of freedom (149), indicates the significance of the model and its statistical acceptance, to accept the first sub-hypothesis of the first main hypothesis (the dimensions affect Process re-engineering has a significant impact on reliability.
• The calculated value of (F) for the model is 61.229, which is greater than its tabulated value (3.9065) and with a probability value of 0.05 at the degree of freedom (149), to indicate the significance of the model, which allows it to be accepted statistically, to accept the second sub-hypothesis of the first main hypothesis the dimensions of process reengineering affect the response significantly.
• The value of (F) calculated for the model is 33.047, which is greater than its tabulated value (3.9065) and with a probability value of 0.05 to indicate the significance of the model, which allows the model to be accepted statistically. The third sub-hypothesis of the first main hypothesis is accepted (process re-engineering with its combined dimensions affects... tangibility has a moral effect).
• The researchers found out from the results of Table 22 that the value of (F) calculated for the model (115.571), which is greater than its tabulated value (3.9065), with a probability value of 0.05 and a degree of freedom (149) to indicate the significance of the model and its statistical acceptance accepts the fourth sub-hypothesis of the main hypothesis. The first (process re-engineering, with its combined dimensions, has a significant impact on safety).
• The value of (F) calculated for the model is 77.121, which is greater than its tabulated value (3.9065), with a probability value of 0.05 and a degree of freedom (149) to indicate the significance of the model and acceptance of the fifth sub-hypothesis of the first main hypothesis (process re-engineering in its dimensions has an effect on empathy morally).

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4. Conclusions:

1. The banks demonstrated their interest in the quality of banking service and sought to improve it by investing in BPR practices. They did this by focusing on personnel management, technology infrastructure, and centralization.

2. The results indicated that empathy serves as a significant enhancer of the quality of services provided by the banks in the research sample. This has led the banks to foster dialogue and communication skills among their employees, enabling them to respond to customer requests and inform customers about their new services. However, the researchers, based on their observations, believe in the necessity of continuous improvement of the performance of customer service employees and engaging them in specialized training programs to highlight empathy as a key attribute of the quality in banking services.

3. The commitment of the banks in the research sample to reliability (dependability) is evident due to their executive management's possession of a clear vision and knowledge for implementing various processes. Additionally, they impactively address obstacles and challenges that hinder the implementation of their direction toward business process reengineering.

4. The survey results have shown a high level of responsiveness to the requests of the customers of the banks in the research sample. This is reflected in the readiness of their employees to consistently provide various services promptly. However, the researchers, based on their observations, believe in the necessity of further enhancing responsiveness and adding more electronic services to alleviate the pressure and congestion experienced by the branches of the banks in the research sample.

5. The banks' interest in tangibility is evident as they provide services with the latest technologies and equipment, aligned with the appearance of their physical facilities to match the types of banking services they offer to the public. This demonstrates their commitment to modernizing the banking sector in Iraq.

6. The banks have expressed their commitment to security (reliability), which stems from their efforts to enhance the behaviour of their employees, earning the trust of customers. They consistently provide advice when customers select banking services that align with their needs and preferences, particularly those that enhance protection. This is achieved through awareness departments and public protection activities related to banking security.

Authors Declaration:

Conflicts of Interest: None

-We Hereby Confirm That All The Figures and Tables In The Manuscript Are Mine and Ours. Besides, The Figures and Images, Which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.

- Ethical Clearance: The Research Was Approved By The Local Ethical Committee in The University.

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References:

1. Adefulu, A., Akinshipe, J., Makinde, O., and Akpa, V. (2020). Business process reengineering and operational costs of selected Nigerian Airline Companies. Problems and Perspectives in Management, VOL 18, No3, pp 182–194.

2. Ahmad, H., Francis, A., and Zairi, M. (2007). Business process reengineering: critical success factors in higher education.

3. Ali, M. S. M. and Zidan, G. T. (2019). The Impact of Authentic Leadership on Business Process Reengineering: An Exploratory Study in the General Company for Pharmaceuticals and Medical Supplies in Samarra. Journal of Economics and Administrative Sciences, Vol 25, No 115, pp. 191–219. doi: 10.33095/jeas.v25i115.1765.

4. Al-jazzazi, A., and Sultan, P. (2017). Demographic Differences in Jordanian Bank Service Quality Perceptions. International Journal of Bank Marketing, VOL 35, No2. doi:10.1108/IJBM-07-2016-0091.

5. Amat Taap, M., Choy Chong, S., Kumar, M., and Kee Fong, T. (2011). Measuring service quality of conventional and Islamic banks: A comparative analysis. International Journal of Quality & Reliability Management, VOL 28, No8, pp 822–840. https://doi.org/10.1108/02656711111162505.

6. Asikhia, U. O., and Awolusi, D. O. (2015). Assessment of critical success factors of business process re-engineering in the Nigerian oil and Gas Industry. South African Journal of Business Management, VOL 46, No2, pp 1–14. https://doi.org/10.4102/sajbm.v46i2.87.

7. Attaran, M. (2003). Information Technology and business-process redesign. Business Process Management Journal, VOL 9, No4, pp 440–458. doi:10.1108/14637150310484508.

8. Bebli, R. (2015). The Impact of internet banking service quality on customer satisfaction in the banking sector of Ghana (thesis). School of Management Blekinge Institute of Technology, Blekinge.

9. Bourne, L. E., Jr., and Russo, N. F. (1998). Psychology: Behavior in context. W W Norton & Co.

10. Carlsmith, J. M., and Aronson, E. (1963). Some hedonic consequences of the confirmation and disconfirmation of expectances. The Journal of Abnormal and Social Psychology, VOL 66, No2, pp 151–156. https://doi.org/10.1037/h0042692.

11. Caruana, A., Money, A. H., and Berthon, P. R. (2000). Service Quality and Satisfaction—The Moderating Role of Value. European Journal of Marketing, VOL 34, pp 1338-1352. https://doi.org/10.1108/03090560010764432.

12. Chepkorir, M. (2011). Business Process Re-Engineering and Customer Service in KCB Bank Case of Kericho Branch (Thesis). Kenyatta University education. , VOL 13, No3, pp 451-467. Business Process Management Journal, VOL 13, No3, pp 451-467.

13. Eke, G. J., and Achilike, A. N. (2014). Business Process Reengineering in Organizational Performance in Nigerian Banking Sector. Academic Journal of Interdisciplinary Studies, VOL 3, No5, pp 113-126.

14. Falih, F., Kasim, R., Yaseen, M., Layth, S., Khalid, L., Ihsan, M., Sabah, M. I., Hussein, T., and Malaysia, O. (2020, October 15). Business Processes Re-engineering using Operational Risk Management to Improving the Competitive Advantage in the Iraqi Banking Sector.

15. Festinger, L. (1962). A theory of cognitive dissonance. Stanford University Press.

16. Fetais, A., Abdella, G. M., Al-Khalifa, K. N., And Hamouda, A. M. (2022). Business Process re-engineering: A literature review-based analysis of Implementation Measures. Information, VOL 13, No4, pp 185. https://doi.org/10.3390/info13040185.

17. Grant, D., Wailes, N., Michelson, G., Brewer, A., and Hall, R. (2002). Rethinking organizational change. Strategic Change, VOL 11, No5, pp 237–242. https://doi.org/10.1002/jsc.599.

18. Grönroos, C. (1984). A service quality model and its marketing implications. European Journal of Marketing, VOL 18, No4, pp 36-44.

19. Hammer, M. and Champy, J. (1993) Reengineering the Corporation: A Manifesto for Business Revolution. Scientific Research: An Academic Publisher, Harper Collins, New York. https://doi.org/10.1016/S0007-6813(05)80064-3.
20. Hammer, M. and Champy, J. (1993): Reengineering the Corporation, New York 1993. Harrington, H..T. (1991): Refine Your Business Processes, in: Executive Excellence, Vol. 8, No2., 1991, pp. 15-16.
21. Hashem, G. (2019). Organizational enablers of Business Process Reengineering implementation. International Journal of Productivity and Performance Management, VOL 69, No2, pp 321–343. https://doi.org/10.1108/ijppm-11-2018-0383.
22. Hesson, M. (2007). Business process reengineering in UAE public sector. *Business Process Management Journal*, *13*(5), 707–727. https://doi.org/10.1108/14637150710823174
23. Holdford, D. A. (2018). Resource-based theory of competitive advantage – A framework for Pharmacy Practice Innovation Research. Pharmacy Practice, VOL 16, No3, pp 1351. doi:10.18549/pharmpract.2018.03.1351.
24. Hovland, C. I., Harvey, O. J., and Sherif, M. (1957). Assimilation and contrast Impacts in reactions to communication and attitude change. Journal of Abnormal and Social Psychology, VOL 55, pp 244-252. doi:10.1037/h0048480.
25. Khalf B. A. (2015). "An Integrated Framework for Cost Reduction Techniques and Business Process Reengineering for Developing Corporate Strategies: An Applied Study in Some Companies Affiliated with the Ministry of Oil." Journal of Economic and Administrative Sciences, VOL 21, No86, pp 488. doi: 10.33095/jeas.v21i86.871.
26. Kuhil, A. M. (2013). Business Process Reengineering and Organizational Performance: A Case of Ethiopian Public Banking Sector. University of South Africa.
27. Lopez-Arredondo, L. P., Perez, C. B., Villavicencio-Navarro, J., Mercado, K. E., Encinas, M., and Inzunza-Mejia, P. (2019a). Reengineering of the software development process in a technology services company. Business Process Management Journal, VOL 26, No2, pp 655–674. doi:10.1108/bpmj-06-2018-0155.
28. Mahdi, A. G., and Jathir, S. H. (2020). The Relationship and Impact of Internal Marketing on Customer Satisfaction: A Survey Study of a Sample of Private Bank Managers in Baghdad. Journal of Economic and Administrative Sciences, VOL 26, No122, Pp 35–49. doi: 10.33095/jeas.v26i122.1997.
29. Mishra, D. and Mahanty, B. (2014) 'The Impact of onsite-offshore work division on project cost, schedule, and quality for re-engineering projects in Indian outsourcing software industry', *Strategic Outsourcing: An International Journal*,VOL 7 No 3, pp. 198–225. doi:10.1108/so-06-2014-0010.
30. Nahm, A.Y., Vonderembse, M.A. and Koufteros, X.A. (2003), "The impact of organizational structure on time-based manufacturing and plant performance", Journal of Operations Management, VOL 21, No3, pp 281-306.
31. Nkurunziza, G., Munene, J., Ntayi, J., & Kaberuka, W. (2019). Business process reengineering in developing economies. Innovation & Management Review, VOL 16, No2, pp 118–142. https://doi.org/10.1108/inmr-03-2018-0010.
32. Nouri, M. A. (2016). The Impact of Implementing Just-in-Time Production System in the Banking Sector on the Quality of Banking Services. Journal of Economic and Administrative Sciences, VOL 22, No90, p 458. doi: 10.33095/jeas.v22i90.519.
33. Okereke, E., Dieli, O., Ozigbo, A., and Ngige, C. (2021). Impact of credit risk management on the performance of Islamic and commercial banks in Saudi Arabia. Journal of Contemporary Issues in Business and Government, VOL 27, No02.

34. Parasuraman, A., Zeithaml, V., Berry, L.L., 1986. SERVQUAL: a multiple-item scale for measuring customer perceptions of service quality. Report No. 86-108, Marketing Science Institute, Cambridge, MA.
35. Pettigrew, A. M. The character and significance of strategy process research. Strategic Management Journal, special No(Winter 1992),pp 5-16.
36. Ringim, K. J., Osman, N. H., Hasnan, N., and Razalli, M. R. (2013). Exploring the implementation of business process reengineering in Banks. Asian Social Science, VOL 9, No11. https://doi.org/10.5539/ass.v9n11p243.
37. Sasser, W. E., Olsen, R. P. and Wyckoff, D. D. (1978). "Management of Service Operations." Boston: Allyn and Bacon.
38. Shankar, A., and Jebarajakirthy, C. (2019). The influence of E-banking service quality on customer loyalty. International Journal of Bank Marketing, VOL 37, No5, pp 1119–1142. https://doi.org/10.1108/ijbm-03-2018-0063.
39. Wardhanie, A. P., and Amelia, T. (2022). "Implementation of Business Process Reengineering during new normal in Dinamika University Library." JAS-PT (Jurnal Analisis Sistem Pendidikan Tinggi Indonesia), VOL 6, No1.
40. Zhou, Y., Kara, A., and Xiao, Q. (n.d.). "Corporate governance in banks: Empirical evidence from European banks (thesis)."

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تأثير إعادة هندسة عمليات الاعمال في جودة الخدمة المصرفية : بحث تحليلي في عينة من المصارف الحكومية في العراق

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مستخلص البحث:

يهدف البحث الحالي إلى اختبار تأثير إعادة هندسة العمليات في جودة الخدمة المصرفية في المصارف التجارية العامة التي تملكها الدولة في العراق. كما يهدف أيضًا إلى تحديد مستوى اهتمام مصارف (الرافدين، الرشيد والمصرف العراقي للتجارة بمتغيرات البحث، في محاولة لتقديم مجموعة من التوصيات للمساهمة في تحسين الممارسات الإدارية. واعتمد البحث منهجًا وصفيًا تحليليًا في إتمام جانبه التطبيقي. تم البحث في المصارف التجارية العامة في العراق خلال عام 2022، والتي شكلت مجتمع البحث. وتكونت العينة من 170 مستجيبًا من المناصب القيادية في البنوك الثلاثة (مدراء الشعب، مدراء الأقسام، مساعدو المديرين العامين ومديرين العامين). تم تزويدهم بأداة البحث "الاستبيان"، وكان الصالح منها 150 استبانة. وقد تم استكمال الاستبيان بمقابلات وبيانات إضافية. استخدم الباحث برنامج SPSS، ، لتحليل البيانات الأولية، باعتماده على أساليب إحصائية وصفية وتحليلية. شملت الاختبارات الإحصائية الاختبارات الاعتيادية، وتحليل العوامل التوجيهية، وتحليل العوامل التأكيدية، واختبارات الصدق والثبات، والمتوسط، ومعامل التباين، والانحراف المعياري، والانحدار الخطي البسيط، والانحدار المتعدد لاختبار الفرضيات التي تمثل أسئلة البحث الرئيسية. أظهرت نتائج البحث تأثيراً إحصائياً ملموساً لإعادة هندسة العمليات على جودة الخدمة المصرفية.

نوع البحث: ورقة بحثية مستلة من أطروحة دكتوراه

المصطلحات الرئيسة للبحث: إعادة هندسة العمليات ، جودة الخدمة المصرفية ، المصارف التجارية العراقية العامة