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The Role of Reengineering Operations in Achieving Banking Sustainability: A Case Study on A Sample of Employees in Iraqi Private Commercial Banks

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ABSTRACT

The study aims to know the role of reengineering processes (process design, service quality, technology) in achieving banking development in its three dimensions (economic, social, and environmental) in Iraqi private commercial banks. The descriptive analytical approach was adopted by distributing a questionnaire to a sample of workers in those Banks (338) from various administrative levels. The most prominent results were the existence of a positive relationship between reengineering processes and banking sustainability and that Reengineering has an impact on achieving sustainability in banks through redesigning operations and enhancing the quality of service and technology used. The most prominent recommendations were that the management of private banks in Iraq develop appropriate strategies to develop sustainability activities and improve its operations in line with the needs and desires of customers.

INTRODUCTION

Reengineering banking operations is an essential strategy that helps achieve banking sustainability and improve performance. Banking process optimization involves restructuring and enhancing existing banking procedures to maximize efficiency and improve overall performance. The reengineering operations are used to analyze and restructure the operations of private commercial banks in Iraq to achieve financial and economic sustainability. Iraqi private commercial banks encounter various obstacles that impact their capacity to maintain long-term viability in the banking sector. These problems include legislative constraints, technical advancements, changes in consumer preferences, and financial strains. Implementing operational Reengineering in the banking sector improves the capacity to adapt to challenges and accomplish objectives (Nasser & Abdul-Redha, 2023), particularly in the Iraqi context, marked by ongoing changes and a dynamic environment. Requires bank management to identify practical approaches and strategies to enhance their position and effectively address these persistent and evolving challenges. Reengineering operations aims to enhance efficiency and quality, minimize expenses, and augment customer happiness (Falih *et al.*, 2020). This encompasses the examination and assessment of existing operations, the identification of issues and deficiencies, the formulation of novel solutions, and the creation of innovative and streamlined procedures.

To accomplish these goals, many strategies are implemented, including organizational redesign, process reengineering, supply chain management, and sophisticated technology (Maharmah & Al Jbour, 2023). Studying the impact of reengineering operations on the viability of Iraqi private commercial banks is a crucial and noteworthy topic. Iraq has a grand total of 81 banks comprising seven government and 74 private banks. Among the private banks are 24 commercial banks and 29 Islamic banks. Additionally, there are 21 branches of international banks operating in the country. Compared to other countries in the area, Turkey has the highest number of banks with 43, followed by Egypt with 41, Saudi Arabia with 31, Iran with 30, Jordan with 26, and Algeria with 20. Despite the abundance of banks in Iraq, they still need to fulfill their necessary financial function and offer contemporary banking services and products (Jabr & Shamkhi, 2023). This research seeks to investigate how banking sustainability can be attained in Iraqi private commercial banks through the implementation of reengineering operations. It aims to identify the factors that impact the success of these operations and elucidate the potential advantages and obstacles they may encounter. Therefore, the research problem can be articulated by the subsequent primary inquiry: Has the management of Iraqi banks successfully implemented reengineering operations in their banking processes to improve the sustainability of their activities and operations? The primary inquiry gives rise to the subsequent subordinate inquiries:

1- What is the level of reengineering operations practices in the researched Iraqi private commercial banks?

2- What is the level of banking sustainability in the researched Iraqi private commercial banks?

3- What is the role of reengineering operations in enhancing banking sustainability in Iraqi private commercial banks?

The Eesearch Objectives

1. To determine the level of reengineering operations practices in Iraqi private commercial banks.

2. To determine the level of banking sustainability in Iraqi private commercial banks.

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3. To identify the role of reengineering operations in achieving banking sustainability in Iraqi private commercial banks.

4. To provide some conclusions and recommendations that can enhance the performance and development of Iraqi private commercial banks by strengthening their strengths and addressing areas of weakness.

Importance of the Research

The scientific significance of the current research lies in its exploration of the variables under study, namely reengineering operations and banking sustainability. These concepts are essential in managerial and accounting thinking due to the valuable methods and practices they offer. Reengineering operations in banking serves as an effective tool for achieving banking sustainability. These operations aim to redesign and improve banking processes and procedures to enhance efficiency, reduce costs and risks, and strengthen the banks' ability to compete in the commercial banking market. By improving operational efficiency and enhancing customer experience, banks can provide better and more competitive banking services, attracting more customers and increasing their market share. This, in turn, elevates the performance levels of Iraqi banks. The banking sector is one of the critical sectors in the Iraqi economy and the largest in the region in terms of the number of banks. These reasons have motivated the researchers to adopt this topic as it holds great importance, mainly when applied in the Iraqi context.

LITERATURE REVIEW

Reengineering-Operations

Reengineering operations is the comprehensive analysis and redesign of current banking processes and procedures to improve efficiency, effectiveness, and quality significantly. It aims to reshape and transform traditional and inefficient banking operations into innovative and greatly improved processes using technology and modern ideas (Hasnan *et al.*, 2017: 3). This concept focuses on redesigning banking operations to align with changes and innovations. Bhaskar (2018: 65) emphasized redesigning business operations and organizational thinking regarding processes, interconnected systems, and organizational structure to achieve significant performance improvements. It emphasizes both redesign and organizational thinking. On the other hand, Aruta (2018: 2) states that Business Process Reengineering (BPR) aims to achieve significant performance improvements rather than incremental and gradual improvements resulting from traditional process improvement methods. It focuses on making substantial improvements in operations.

Similarly, Chin *et al.* (2019: 1) clarified that it involves rethinking and analyzing business processes to improve performance by integrating information technology with process design, highlighting the technological improvements in accomplishing banking operations and activities. AbdEllatif *et al.* (2018) focused on radical improvements in the operational strategy through rapid and radical changes in the organization's work using modern management methods, such as reengineering strategic processes, policies, organizational structures, and values in unconventional ways. Based on the above, the researchers see reengineering operations as practices aimed at making changes and improvements in their processes, activities, strategies, and services, as well as the technology used to enhance activities and achieve desired goals with lower costs, time, and higher quality. Economic, legal, and environmental pressures impose strict requirements on organizations or banks to effectively redesign their processes, develop new strategies, and improve organizational structures and operations to adapt to these challenges and achieve sustainable success. Implementation initiatives of reengineering processes have achieved significant and influential results for organizations adopting this approach. They have achieved significant cost reductions, increased profits, improved production quality, and rapid response to customer requirements (Getele & Jean, 2018).

On the other hand, Reengineering is a means to solve complex problems. It works on improving business processes and is not limited to improving the current situation but has a lasting impact. It also includes significantly improving all low-performing activities (Cemehocha *et al.*, 2020: 2). Reengineering operates widely within an organization and has many benefits, such as cost reduction, increases, and improved production, which increases customer satisfaction (Abdel-Latif *et al.*, 2018: 2). It is also a systematic tool that works on changing performance and future improvement and includes the radical redesign of its processes, characterized by specifications during implementation (Chountalas & Lagodimos, 2018: 14). In the same context, Gunasekaran and Kobu (2002) stated that it is an interconnected and sequential process that works integrally to make incremental or radical improvements in behaviors, structures, technologies, processes, and customer service, as shown in Figure (1) below:

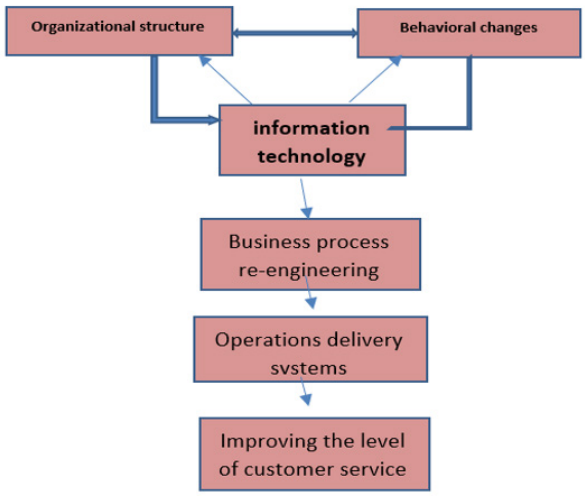

Figure 1: Re-engineering Operations

Banking Sustainability

The concept refers to the ability of banking institutions to balance economic, social, and environmental dimensions in their operations and decision-making to meet the needs of the current generation without compromising the ability of future generations (Brundtland, G.H. 1987). Companies and institutions recognize that sustainability is crucial for long-term success (Ali *et al.*, 2021). Integrating sustainability into strategic management provides a framework for achieving business goals. It can lead to new opportunities, cost reduction, improved brand reputation, and a positive impact on society and the environment (Banerjee, 2018). Sustainable practices such as reducing energy consumption and greenhouse gas emissions can help companies improve their environmental performance and reduce costs (Poudel *et al.*, 2021).

Additionally, integrating circular economy principles, such as waste reduction and material reuse, can enhance environmental sustainability and business competitiveness (Teng *et al.*, 2020). Social sustainability has emerged as a significant topic in recent research, with companies prioritizing employee health and safety and supporting local communities, which proves to be more resilient during times of crisis (Leung *et al.*, 2020). Similarly, promoting diversity and inclusion can improve employee engagement and retention (Córdoba-Pachón *et al.*, 2021). Economic sustainability is also essential, with sustainable practices such as investing in renewable energy and waste reduction leading to long-term financial performance and value creation (Fan *et al.*, 2021).

The triple bottom line framework is commonly used to measure sustainability as it takes a comprehensive approach (Savitz & Weber, 2014; Alkhodary, D., 2021). The framework includes three dimensions of sustainability: environmental, social, and economic. The environmental dimension relates to the impact of operations on the natural environment, the social dimension considers their impact on stakeholders, and the economic dimension focuses on financial performance.

The United Nations' Sustainable Development Goals (SDGs) provide a global framework to address sustainability challenges, with 17 goals covering various environmental, social, and economic aspects (The United Nations, 2015).

Research Hypotheses

Primary Hypothesis H_1

There is a statistically significant relationship between reengineering processes dimensions (process design, service quality, technology) and banking sustainability dimensions (economic dimension, social dimension, environmental dimension) in Iraqi private commercial banks in Iraq.

Primary Hypothesis H_2

There is a statistically significant impact of reengineering processes variables dimensions (process design, service quality, technology) on enhancing banking sustainability dimensions (economic dimension, social dimension, environmental dimension) in Iraqi private commercial banks, and the following sub-hypotheses branch from it:

Sub-Hypothesis H_{2-1}

There is an impact of process design dimension on enhancing banking sustainability in Iraqi private commercial banks.

Sub-Hypothesis H_{2-2}

There is an impact of service quality dimension on enhancing banking sustainability in Iraqi private commercial banks.

Sub-Hypothesis H_{2-3}

There is an impact of the technology dimension on enhancing banking sustainability in Iraqi private commercial banks.

Research Model

The research model is based on the relationship between reengineering processes and banking sustainability in Iraqi private commercial banks. The Model consists of three main dimensions: the three dimensions of reengineering processes (process design, service quality, technology) and the three dimensions of banking sustainability (economic dimension, social dimension, environmental dimension).

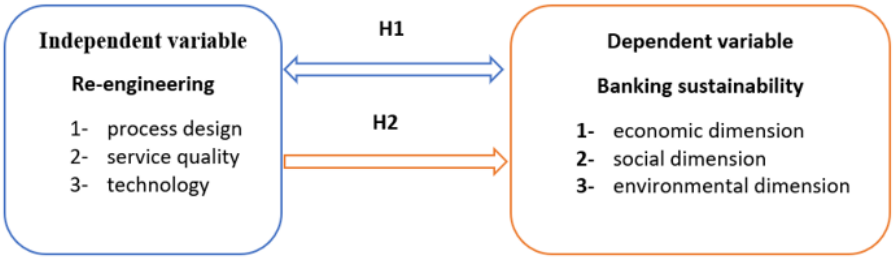

Figure 2:

Research Methodology

The researchers adopted a descriptive-analytical methodology in this study. This Methodology involves describing the phenomenon and the related concepts and analyzing and interpreting the phenomenon based on the results and data obtained. A questionnaire consisted of 30 items, with 15 items representing the independent variable of reengineering processes and another 15

items representing the dependent variable of banking sustainability. This design aligns with the objectives of the current research.

Research Community and Sample

The research community comprises employees in Iraqi private commercial banks, totaling 2,843 employees from various senior, middle, and executive positions (bank managers, branch and department managers, section and unit managers, accountants, auditors, and administrators). The research includes eight Iraqi private commercial banks out of Iraq's 24 commercial private banks. The selected banks are Baghdad Bank, Iraqi Commercial Bank, Iraqi Middle East Investment Bank, Iraqi Investment Bank, United Bank for Investment, Iraqi Al-Ahli Bank, Iraqi Credit Bank, and Economy Bank for Investment and Finance. These banks were chosen due to their prominence and being the largest in activity among Iraqi private commercial banks and the oldest in this sector, as shown in the following Table (1).

"A random sample of 338 individuals was drawn from various managerial levels of the researched population, which consists of a total of 2,843 individuals. This was done based on the)Steven K. Thompson ,2012). The details of the sample are shown in Table (2) below."

Table 1: Comprises employees in Iraqi private commercial banks

No.	Bank Name	Year of Establishment	Capital	Number of Branches	Number of Employees
1	Baghdad Bank	1992	250 billion	23	470
2	Iraqi Commercial Bank	1992	250 billion	8	185
3	Iraqi Middle East Investment Bank	1993	250 billion	18	385
4	Iraqi Investment Bank	1993	250 billion	16	298
5	United Bank for Investment	1994	300 billion	26	510
6	Iraqi Al-Ahli Bank	1995	250 billion	18	360
7	Iraqi Credit Bank	1998	250 billion	4	175
8	Economy Bank for Investment and Finance	1999	252 billion	23	460
	Total			**2843**	

Table 2: Represents the research sample according to the researched managerial levels

No.	Categories	Sample Size
1	Bank Managers	8
2	Branch and Department Managers	136
3	Section Managers	60
4	Accountants, Auditors, and Administrators	134
Total		**338**

RESULTS AND DISCUSSION

Characteristics of the Research Sample

The characteristics of the research sample include gender, age, educational level, and work experience. It can be observed that the highest percentage in terms of gender is for males at 71% compared to 29% for females. Regarding age, 16% of the sample falls between 20 and 30, while 43% falls between 31 and 40. Then, 28% of the sample falls between 41 and 49, while 13% are 50 or older. Regarding educational level, 72% of the sample hold a Bachelor's degree, while 15% have a higher diploma, 8% have a Master's degree, and 5% have a Doctorate.

Regarding work experience, 16% of the sample have work experience of 5 years or less, while 21% have work experience between 6 and 10 years. Additionally, 24% have work experience between 11 and 15 years, while 23% have work experience between 16 and 20 years. Furthermore, 16% have work experience of 21 years or more, and It can be observed that the sample is characterized by a high presence of males, individuals with Bachelor's and higher degrees, and a range of work experience across different categories, with a higher proportion of individuals having extensive work experience. This reflects the suitability and alignment of the selected sample members in achieving

Table 3: Descriptive Statistics

Variables	N	Mean	Std. Deviation
Economic dimension	338	3.136	.6489
Environmental dimension	338	3.230	.6074
Social dimension	338	3.111	.8091

Banking sustainability	338	3.15877712033	.618878368909
Process design	338	3.360	.5617
Service quality	338	3.369	.6913
Technology	338	3.080	.6352

the objectives of the current study, as their high level of experience, academic qualifications, and age can be relied upon in their responses, drawing from their accumulated experience and academic knowledge in their respective fields of expertise. To answer the reengineering operations and banking sustainability level, the researchers will use Descriptive Statistics.

The statistical results for a set of researched variables (process reengineering and banking sustainability) using different measures, such as average and standard deviation, can be inferred from the above Table and are as follows:

Economic Dimension

The average in this dimension is approximately 3.136, with a standard deviation of 0.65. This indicates relatively less variation in the obtained responses in this dimension, which is at an average level.

Environmental Dimension

The average in this dimension is approximately 3.230, with a standard deviation of 0.60. This suggests that the responses related to the environmental dimension range from higher to lower values than the average.

Social Dimension

The average in this dimension is around 3.111, with a standard deviation of 0.80. This also indicates variation in the responses related to the social dimension, which is below average.

Banking Sustainability

The average in this dimension is about 3.15, with a standard deviation of 0.618. It is below average, indicating that sustainability practices in commercial banks in Iraq are not at the desired level.

Process Design

The average in this dimension is approximately 3.360, with a standard deviation of 0.561. It is at an average level.

Service Quality

The average in this dimension is about 3.369, with a standard deviation of 0.6913. It is at an average level.

Technology

The average in this dimension is approximately 3.080, with a standard deviation of 0.6352. It is below average, indicating a weakness in the technology-related aspects, particularly in process reengineering.

Process Reengineering

The average in this dimension is about 3.27, with a standard deviation of 0.566. Process reengineering is at an average level in the researched commercial banks.

Assessment of Measurement Model

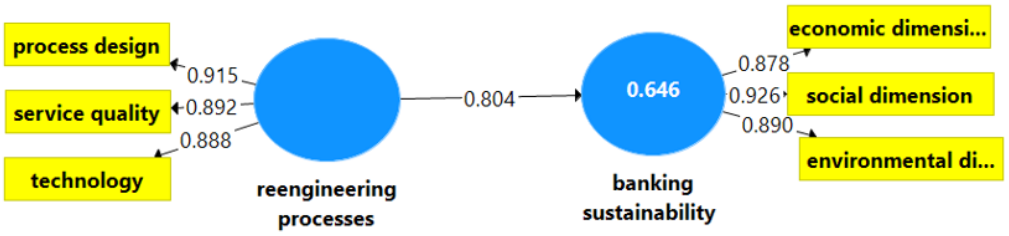

Figure 3: Assessment of Measurement Model

Validity& Reliability

Both validity and reliability are crucial in ensuring the credibility and trustworthiness of research outcomes. Validity ensures that the research accurately captures the intended concepts and variables, while reliability ensures that the research findings are consistent and dependable.

Convergent Validity

In summary, proximal validity evaluates the consistency and agreement among questions or measures intended to assess the same construct or concept. It is assessed by examining the level of agreement or correlation between these questions or measures. It is measured through the following steps:

Indicator Reliability

Indicator reliability is determined by calculating the values of the outer loading for each indicator. Hair *et al.* (2012) suggested removing items with values below 0.4 and retaining indicators with values of 0.7 or higher. Items that fall between 0.4 and 0.7 are excluded if their removal increases composite reliability. If there is no change, they are retained. Table (4) illustrates the reliability of the Model's indicators.

We note from the previous Table that all indicators are reliable, which is greater than 0.7

Table 4: Indicator reliability

Variables	Latent Variables	Outer loading
Banking sustainability	Economic dimension	0.878
	Environmental dimension	0.890
	Social dimension	0.926
Reengineering processes	Process design	0.915
	Service quality	0.892
	Technology	0.888

Construct Reliability and Validity

The indicators "banking sustainability" and "reengineering processes" exhibit good internal consistency reliability, as indicated by Cronbach's Alpha values of 0.880 and 0.881, respectively. The reliability is further supported by the rho_A (rho_alpha) values of 0.882 and 0.883, indicating consistent measurement within each construct. Both indicators demonstrate excellent composite reliability, with values of 0.926, indicating the measurement model's high internal consistency and reliability.

The Average Variance Extracted (AVE) values for "banking sustainability" and "reengineering processes" are 0.807 and 0.808, respectively. These values suggest that approximately 81% of the variance in the indicators can be explained by their respective constructs. In conclusion, the analyzed indicators exhibit good reliability, high internal consistency, and a significant proportion of variance explained by the constructs.

Table 5: Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	(AVE)
Banking sustainability	0.880	0.882	0.926	0.807
Reengineering processes	0.881	0.883	0.926	0.808

Discriminant Validity

Fornell-Larcker Criterion

The Fornell-Larcker criterion is used to assess the discriminant validity of constructs in a measurement model. It examines the correlation between constructs and compares it to the square root of each construct's average variance extracted (AVE). The provided Table shows that the correlation between "banking sustainability" and itself is 0.898, higher than its AVE's square root (0.897). Similarly, the correlation between "reengineering processes" and itself is 0.899, higher than its AVE's square root (0.897). These results indicate that each construct correlates highly with itself, demonstrating internal consistency. However, the correlation between "banking sustainability" and "reengineering processes" is 0.804, which is lower than the square root of their respective AVEs (0.897). This suggests that there is discriminant validity between these two constructs, as they are not highly correlated.

Table 6: Fornell-Larcker Criterion

Variables'	Bbanking sustainability	Reengineering processes
Banking sustainability	0.898	
Reengineering processes	0.804	0.899

Cross Loadings

The provided Table (7) presents the cross-loadings for the latent variables of "banking sustainability" and "reengineering processes" with their respective dimensions. For the "banking sustainability" latent variable, we observe high cross-loadings with the economic dimension (0.878), the environmental dimension (0.890), and the social dimension (0.926). These results suggest that the "banking sustainability" construct is strongly related to each dimension, indicating

Table 7: Cross Loadings

Latent Variables	Banking sustainability	Reengineering processes
Economic dimension	0.878	0.716
Environmental dimension	0.890	0.697
Social dimension	0.926	0.752
Process design	0.755	0.915
Service quality	0.696	0.892
Technology	0.716	0.888

that it encompasses various aspects of sustainability. Similarly, for the "reengineering processes" latent variable, we observe high cross-loadings with the process design dimension (0.915), the service quality dimension (0.892), and the technology dimension (0.888). These findings indicate that the "reengineering processes" construct is strongly associated with these dimensions. Overall, the cross-loadings in the Table indicate a good fit between the latent variables and their respective dimensions. This suggests that the measurement items used to assess the latent variables align well with the dimensions they are intended to measure, supporting the convergent validity of the measurement model.

Collinearity Statistics (VIF)

The provided Table (8) shows the Variance Inflation Factor (VIF) values for the latent variables included in the Model. VIF is a measure used to assess multicollinearity, the degree of correlation between predictor variables. A VIF value of)1-5) indicates no multicollinearity, and typically, values above 5 or 10 are considered problematic and indicative of severe multicollinearity. In this Table, the VIF values are below these critical thresholds, suggesting that multicollinearity is insignificant in this Model.

Table 8: Variance Inflation Factor (VIF)

Latent Variables	VIF
Economic dimension	2.183
Environmental dimension	2.500
Social dimension	3.065
Process design	2.714
Service quality	2.432
Technology	2.299

Model Fit

Based on the Fit Summary table (9), the estimated Model demonstrates a reasonably good fit to the data, as evidenced by the similar fit indices to the saturated Model across SRMR, d_ULS, d_G, Chi-Square, and NFI.

Table 9: Fit Summary

	Saturated Model	Estimated Model
SRMR	0.056	0.056
d_ULS	0.067	0.067
d_G	0.082	0.082
Chi-Square	167.229	167.229
NFI	0.887	0.887

The Coefficient of Determination

The R-squared value of 0.646 indicates that approximately 64.6% of the variance in banking sustainability can be explained by the independent variables(reengineering processes). The remaining percentage is due to other variables not included in the current study model. The adjusted R-squared value of 0.645 is nearly identical, suggesting that the Model's performance is not significantly affected by the number of predictors. Overall, the Model shows a moderately strong relationship between the reengineering processes and banking sustainability.

After completing the model quality test and basic suitability tests, the research hypotheses will be tested:

Table 10: R-squared value

Variable	R Square	R Square Adjusted
Banking sustainability	0.646	0.645

Testing the First Hypothesis

The results in Table No. (11) above indicate a statistically significant correlation between the independent variable (process reengineering) with its three latent dimensions and the dependent variable banking sustainability with its three latent dimensions. Therefore, we accept the first research hypothesis H1.

Table 11: Correlations pearson

Variables	x1	x2	x3	x	y1	y2	y3	y
Process design	1	.737**	.719**	.904**	.698**	.683**	.652**	.752**

Service quality	.737**	1	.678**	.880**	.578**	.682**	.611**	.697**
Technology	.719**	.678**	1	.909**	.649**	.664**	.614**	.714**
Reengineering processes	.904**	.880**	.909**	1	.716**	.751**	.696**	.802**
Economic dimension	.698**	.578**	.649**	.716**	1	.722**	.643**	.865**
Environmental dimension	.683**	.682**	.664**	.751**	.722**	1	.763**	.931**
Social dimension	.652**	.611**	.614**	.696**	.643**	.763**	1	.897**
Banking sustainability	.752**	.697**	.714**	.802**	.865**	.931**	.897**	1

Testing the Second Central Hypothesis H2

The path coefficient for the relationship between "reengineering processes" and "banking sustainability" is 0.804. This indicates a strong and positive relationship between these variables, suggesting that improvements in reengineering processes significantly impact banking sustainability. Therefore, we accept the second central hypothesis, H2.

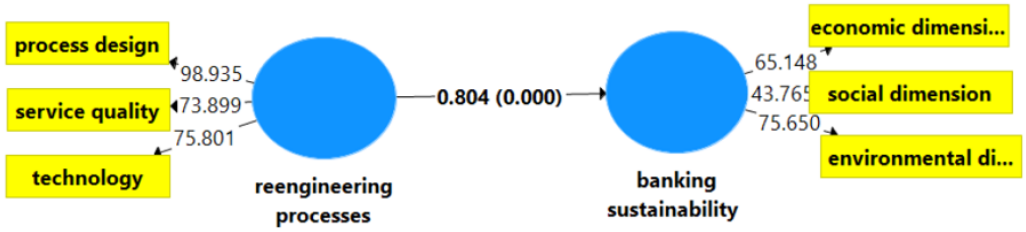

Figure 4: Testing the second central hypothesis H2

Table 12: Path Coefficients

PATH	Original Sample (O)	Sample Mean (M)	(STDEV)	T Statistics	P Values
Reengineering processes -> banking sustainability	0.804	0.805	0.020	40.057	0.000

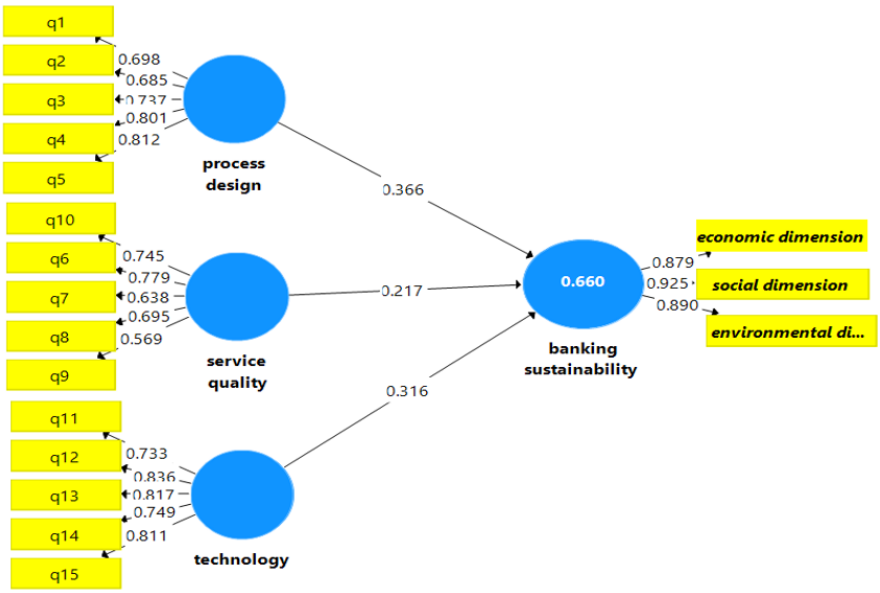

Figure 5: The second study model aims to test the effect of the sub-dimensions of reengineering processes (process design, service quality, technology) on the dependent variable of banking sustainability in Iraqi commercial banks

Indicator Reliability

The results of the Model's goodness-of-fit standards indicate that all dimensions and paragraphs of the Model fall within the goodness-of-fit standards, except for paragraphs q9, q8, and q7 of the service quality dimension and paragraphs Q1, Q2 of the process design dimension, which are less than the specified goodness-of-fit standard of 0.70, unless (Hair *et al.*) indicated (2917) If the saturation of the items falls between (0.40-0.70). The researcher must verify the effect of deleting this item on the other criteria of the measurement model. Therefore, when item Q9 is deleted from the study model, the value

of the other criteria (AVE) changes, and in this way, we decide to Delete the cursor. After completing the reliability standards (internal consistency consistency (Cronbach alpha), indicator stability (outer loading), and convergent validity (average variance extracted (AVE).

The researcher conducted and tested the discriminant validity criterion (cross-loading), which aims to ensure that the items belong to the dimension they represent in a way that is larger than the other dimensions and does not overlap with them. The Table (15) below shows this test:

Table 13: Outer Loadings

Variables	Indicators		Cronbach's Alpha	C.R	(AVE)
Banking sustainability	Y1	0.879	0.880	0.926	0.807
	Y2	0.890			
	Y3	0.925			
Process design	q1	0.698	0.802	0.864	0.560
	q2	0.685			
	q3	0.737			
	q4	0.801			
	q5	0.812			
Service quality	q6	0.779	0.721	0.817	0.475
	q7	0.638			
	q8	0.695			
	q9	0.569			
	q10	0.745			
Technology	q11	0.733	0.849	0.892	0.625
	q12	0.836			
	q13	0.817			
	q14	0.749			
	q15	0.811			

Table 14: Outer Loadings After modification

Variables	Indicators		Cronbach's Alpha	C.R	(AVE)
Banking sustainability	Y1	0.879	0.880	0.926	0.807
	Y2	0.890			
	Y3	0.925			
Process design	q1	0.698	0.802	0.864	0.560
	q2	0.685			
	q3	0.737			
	q4	0.801			
	q5	0.812			
Service quality	q6	0.782	0.707	0.820	0.533
	q7	0.651			
	q8	0.727			
	q10	0.755			
Technology	q11	0.733	0.849	0.892	0.625
	q12	0.836			
	q13	0.817			
	q14	0.749			
	q15	0.811			

Table 15: Cross loading

Indicators	Banking sustainability	Process design	Service quality	Technology
Economic dimension	0.879	0.697	0.596	0.665

Environmental dimension	0.890	0.653	0.619	0.627
Social dimension	0.925	0.686	0.677	0.672
q1	0.512	0.698	0.512	0.487
q2	0.558	0.685	0.559	0.428
q3	0.568	0.737	0.498	0.541
q4	0.580	0.801	0.545	0.605
q5	0.604	0.812	0.657	0.634
q6	0.481	0.613	0.782	0.559
q7	0.506	0.466	0.651	0.533
q8	0.458	0.590	0.727	0.415
q10	0.586	0.511	0.755	0.462
q11	0.597	0.595	0.466	0.733
q12	0.552	0.569	0.582	0.836
q13	0.660	0.611	0.554	0.817
q14	0.554	0.515	0.532	0.749
q15	0.486	0.554	0.531	0.811

Collinearity Statistics (VIF)

A VIF value of)1-5) indicates no multicollinearity, and typically, values above 5 or 10 are considered problematic and indicative of severe multicollinearity. In this Table, the VIF values are below these critical thresholds

Table 16: Collinearity Statistics

Indicators	VIF
Economic dimension	2.183
Environmental dimension	2.500
Social dimension	3.065
q1	1.430
q10	1.342
q11	1.533
q12	4.412
q13	1.869
q14	1.599
q15	4.100
q2	1.422
q3	1.610
q4	2.162
q5	2.005
q6	1.570
q7	1.220
q8	1.454

The Coefficient of Determination

The results of the above Table indicate that the coefficient of determination R-Square is 0.660 and R-Square Adjusted 0.657. That is, the dimensions of the reengineering processes explain a percentage (66%) of the change occurring in the banking sustainability variable. In contrast, the remaining percentage is due to other variables not included in the current study model.

Table 16: R-squared value

Variable	R Square	R Square Adjusted
Banking sustainability	0.660	0.657

Testing the Sub-Hypotheses (H2-1 , H2-2,H2-3) of the Second Main Hypothesis

Sub-Hypothesis H_{2-1}

There is an impact of process design dimension on enhancing banking sustainability in Iraqi private commercial banks.

Sub-Hypothesis H_{2-2}

There is an impact of service quality dimension on enhancing banking sustainability in Iraqi private commercial banks.

Sub-Hypothesis H_{2-3}

There is an impact of the technology dimension on enhancing banking sustainability in Iraqi private commercial banks.

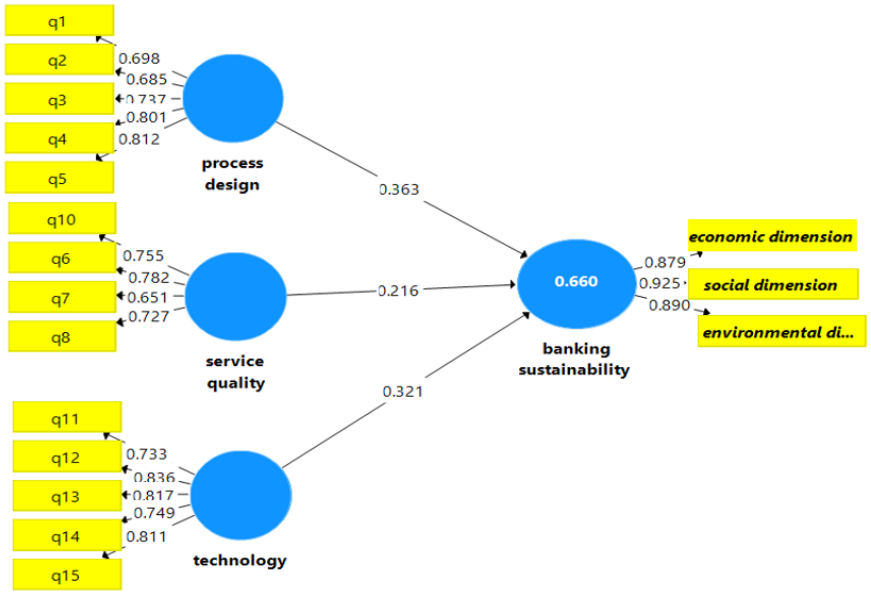

Figure 6:

Path Coefficients

The Table provides path coefficients, descriptive statistics, t-statistics, and p-values for the relationships between three independent variables ("process design," "service quality," and "technology") and the dependent variable "banking sustainability."

Table 17: Path Coefficients

PATH	Original Sample (O)	Sample Mean (M)	(STDEV)	T Statistics	P Values
Process design -> banking sustainability	0.363	0.366	0.046	7.907	0.000
Service quality -> banking sustainability	0.216	0.212	0.049	4.427	0.000
Technology -> banking sustainability	0.321	0.322	0.047	6.867	0.000

Path Coefficients

The path coefficients represent the strength and direction of the relationships. The coefficients for "process design," "service quality," and "technology" are 0.363, 0.216, and 0.321, respectively. These coefficients indicate positive relationships between each independent variable and banking sustainability. A higher value suggests a more substantial impact on banking sustainability.

Sample Mean and Standard Deviation

The sample mean represents the average values for the variables. The sample means for "process design," "service quality," and "technology" are 0.366, 0.212, and 0.322, respectively. The standard deviations (STDEV) indicate the variability of the scores around the mean for each variable.

T-Statistics and P-Values

The t-statistics measure the significance of the coefficients. Higher absolute t-values indicate greater significance. The corresponding p-values assess the probability of obtaining such results by chance alone. All the t-statistics are relatively high in this case, indicating significant relationships. The p-values of 0.000 suggest that the relationships between the independent variables and banking sustainability are statistically significant. All sub-hypotheses are accepted (H2-1, H2-2, H2-3).

CONCLOGIN

Economic Dimension

The responses in this dimension show relatively less variation, indicating a moderate level of economic

performance among the researched commercial banks.

Environmental Dimension
The responses related to the environmental dimension vary, with some values higher and some lower than the average. This suggests that there is room for improvement in environmental practices within the banks.

Social Dimension
The responses in the social dimension exhibit variation, and the average is below average. This implies that there are areas where the banks can enhance their social initiatives and engagement.

Banking Sustainability
The average score for banking sustainability is below average, indicating that the sustainability practices in the researched commercial banks in Iraq must meet the desired level. There is a need for improvement in this area.

Process Design
The average score for process design is average, suggesting that the researched commercial banks have implemented generally satisfactory processes.

Service Quality
The average score for service quality is at an average level, indicating that the researched commercial banks provide services that meet the average expectations of their customers.

Technology
The average score for the technology dimension must be higher, highlighting a weakness in technology-related aspects, especially in process reengineering. The banks should focus on improving their technological capabilities.

Process Reengineering
The average score for process reengineering is at an average level, suggesting that the researched commercial banks have implemented reengineering practices that are generally satisfactory.
The results indicate the need to improve banking sustainability, environmental practices, social initiatives, and technology-related aspects within the researched commercial banks. However, the banks have achieved average performance in economic dimensions, process design, service quality, and process reengineering. A positive relationship exists between the studied study variables, reengineering processes, and banking sustainability.

RECOMMENDATION

It is recommended to continue to enhance economic performance and achieve further improvements by adopting more sustainable strategies and developing environmental initiatives to contribute to environmental protection. Furthermore, banks should enhance their social responsibility and implement initiatives promoting communication and community engagement. The improvement in this area should be achieved by adopting sustainable initiatives and integrating environmental and social standards in banking operations. Continuing to improve process design is essential to enhance efficiency and effectiveness. It is crucial to improve service quality and enhance the customer experience continuously. Banks should focus on improving their technological capabilities and the necessity of improving process reengineering practices to enhance efficiency and achieve continuous improvements. In summary, the results indicate the need for improvement in banking sustainability, environmental practices, social initiatives, and technology-related aspects within commercial banks in the Iraqi environment.

LIMITATION

The study defines its scope for private commercial banks in Iraq, which refers to banks that operate in the private sector and provide commercial banking services. It was applied to a sample of employees in private commercial banks in Iraq, who number (338). It was applied to a sample of employees in the Iraqi environment, so it is preferable to include other variables. Such as inclusion, money, competitive advantage, and expanding the scope of application in a different environment

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