

## **The role of internal control in improving the performance of banks - an analytical study in the Commercial Bank of Iraq**

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### **Abstract**

The main objective of the current research is to attempt to understand the role of internal control in improving the performance of banks, as well as to identify the objectives of the internal control system and the methods of managerial and accounting control, and to present and analyze the availability of internal control elements. The current research was applied in the Commercial Bank of Iraq, where (50) questionnaires were distributed to a purposive sample of employees in the researched bank. To extract the results, statistical analysis software (SPSS V.26) was used, and several statistical tools were relied upon to analyze the results, including means, standard deviations, impact values, standard errors, and levels of significance. The research has yielded several results, the most important of which is that the researched bank is committed to accurately applying the Iraqi Unified Accounting System, as well as its commitment to internal control procedures, but to a moderate extent, not at the required level. Based on this, the researcher recommends enhancing the bank's commitment to internal control procedures to achieve the required level of effectiveness and compliance.

**Keywords :** Internal Control, Banking Performance, Control Environment, Operational Processes.

## **Introduction**

Internal control plays a vital role in enhancing and improving the performance of banks, as this function constitutes an essential part of the organizational structure of any financial institution. The aim of internal control is to ensure the effective execution of banking operations within the framework of established laws and regulations, and achieving internal control balances risks and efficiency in performance is crucial.

Banks are financial entities that manage substantial funds and engage in large transactions that must be carefully managed. Internal control encompasses various aspects such as internal auditing, risk management, and compliance with laws and regulations. By establishing monitoring and evaluation systems, internal control assesses the efficiency of operations and ensures their alignment with defined objectives and strategies.

Furthermore, internal control plays a significant role in detecting any irregularities or illegal actions, thus enhancing levels of integrity and transparency within banks. It also works to identify and mitigate potential risks, whether related to financing, liquidity, or the market.

### **First Topic**

#### **Research Methodology**

##### **Firstly: Research Problem**

The lack of awareness among senior management in financial institutions in general, and banks in particular, regarding the importance of internal control can significantly impact efficiency, effectiveness, and transparency of banking operations. The financial scandals and fraud lawsuits that have occurred in recent years have highlighted the weakness of internal control systems in many companies, leading to increased attention to internal

auditing and internal control systems and their role in modern business organizations. Therefore, the research problem lies in evaluating the extent of development of internal control in banks operating in Iraq, based on global developments in this field regarding their adherence to clear standards in internal control and its impact on their financial performance. Given the modernity of the banking sector and its crucial role in the country's economy and its impact on all economic activities, the research problem can be further elaborated through the following questions:

1. What role does internal control play in improving the banking performance of the researched banks?
2. Is there a relationship between internal control and banking performance in the sample banks?

### **Secondly : Research Importance**

Given the pivotal function of internal control within banks in ensuring the reliability of financial reports and data, which subsequently facilitates the provision of precise information to decision-makers, thereby enhancing the efficacy of the banking sector. This, in turn, has a favorable influence on the Iraqi economy by fostering the continuity and advancement of these banks' performance, ultimately resulting in heightened market share and competitiveness. Hence, the significance of this research lies in examining the relationship dynamics and the consequential effect of internal control on enhancing the performance of the selected banks.

### **Thirdly : Research Objectives**

The main aim of this study is to explore the contribution of internal control mechanisms in enhancing the performance of banks. Additionally, it aims to delineate the goals of internal control systems, examine the methods of administrative and accounting oversight, and evaluate the presence of

internal control elements within the surveyed banks. The research also aims to analyze how the existence of these internal control measures influences the performance of these banks. Hence, the research endeavors to accomplish the following objectives:

1. To elucidate the role of internal control in improving the banking performance of the researched banks.
2. To elucidate the nature of the relationship between internal control and banking performance in the sample banks.

#### **Fourth : Research Hypotheses**

**First Main Hypothesis** : There is a significant correlation between the dimensions of internal control and banking performance, and the following sub-hypotheses branch out from it:

1. There is a significant correlation between the control environment and banking performance.
2. There is a significant correlation between risk assessment and banking performance.
3. There is a significant correlation between supervision activities and banking performance.
4. There is a significant correlation between information and communication and banking performance.
5. There is a significant correlation between monitoring and banking performance.

**Second Main Hypothesis** : There is a significant effect between the dimensions of internal control and banking performance, and the following sub-hypotheses branch out from it:

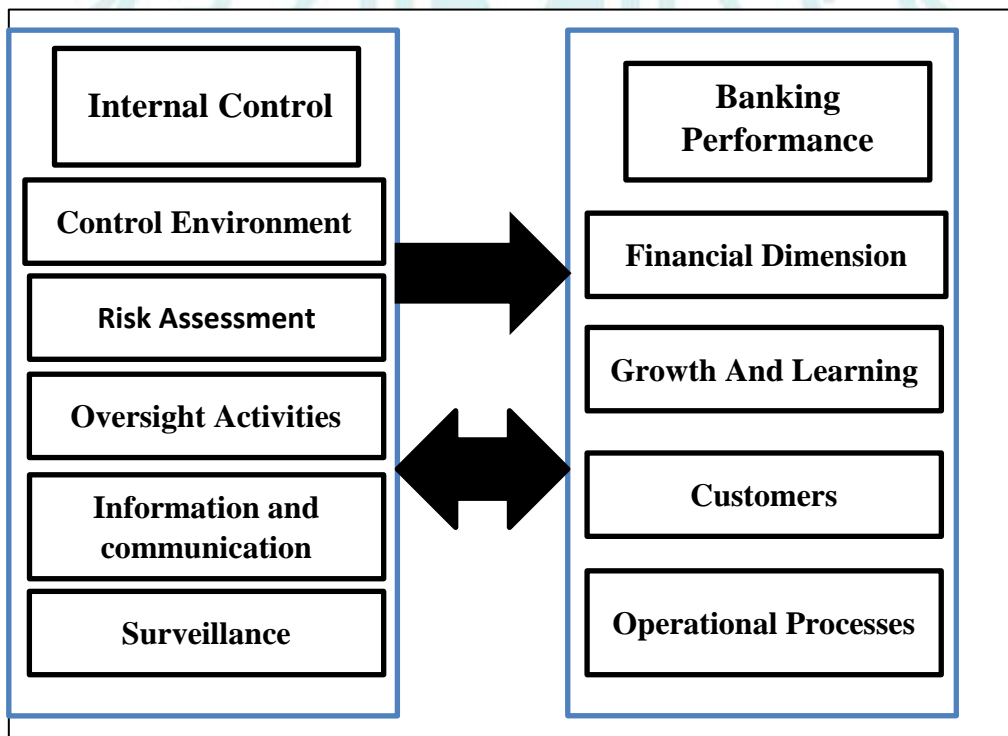
There is a significant effect between the control environment and banking performance.

There is a significant effect between risk assessment and banking performance.

There is a significant effect between supervision activities and banking performance.

There is a significant effect between information and communication and banking performance.

There is a significant effect between monitoring and banking performance.



### Fifth : Hypothetical Research Plan



## **Figure 1 : Hypothetical diagram of the research.**

**Source : Prepared by the researcher.**

### **Sixth: Research Methodology**

The methodology adopted in this study aligns with the identified research problem and aims to address it effectively. It provides a structured framework for gathering information and presenting the research findings coherently. In order to meet the research objectives and attain the desired outcomes, a descriptive analytical approach was employed. This involved defining the problem and delineating its various dimensions using a questionnaire that incorporates the research variables.

#### **Second Topic**

#### **Theoretical Side**

#### **First Axis : Internal Control**

#### **First : Concept of Internal Control**

According to the Sarbanes-Oxley Act of 2002, which governs the management of companies and economic entities listed in the United States, such companies are required to provide annual reports on the effectiveness of internal control over financial reporting and obtain an auditor's certification regarding internal controls. Previous studies have indicated that disclosures of internal control and audit reports are beneficial to stakeholders (Bentley-Goode et al., 2017: 50).

Internal control provides assurance that the company operates efficiently and in line with its mission statement, and that its administrative data and financial reports are reliable, while also promoting compliance with applicable laws and regulations. Conversely, if a company lacks effective

internal control systems, its financial statements may contain material weaknesses (Länsiluoto et al., 2016: 9).

The study of internal control is closely related to the size of the company. Conversely, weak internal control in companies is associated with weaker board and audit committee independence and expertise, increased financing costs, less accurate earnings expectations, and higher audit fees (Chalmers et al., 2019: 81). The Integrated Framework for Internal Control issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO 2013) explicitly states that one of the objectives of internal control is related to "efficiency and effectiveness" (Cheng et al., 2018: 1102). The COSO 2013 framework defines internal control as "a process carried out by a company's board of directors to provide reasonable assurance regarding the achievement of objectives related to operations, reporting, and compliance" (Kinyua et al., 2015: 31).

Internal control is also defined by (AL-Mashhadi, 2021 : 31) as a tool for examining and evaluating the effectiveness of control methods and providing information to senior management, as well as facilitating information exchange and communication between different management levels and top management.

The researcher indicates that internal control is a system of procedures and measures followed by a company to ensure the efficiency of operations and compliance with laws, aiming to achieve integrity, risk assessment, enhance financial security, and strengthen confidence in the company's performance.

## **Second : Dimensions of Internal Control**

The dimensions of internal control, as outlined by (Njeri, 2014), served as a foundational framework for the researcher. These dimensions encompass control environment, risk assessment, audit activities, information and

communication, and monitoring. Each dimension plays a crucial role in ensuring the effectiveness and efficiency of internal control systems within organizations.

## 1. Control Environment

The organizational climate impacts all employees, including internal auditors, and is shaped by management's perception of control importance and effectiveness review functions, influencing internal auditing in various ways (Barišić & Tušek, 2016: 1023). The "control environment" pertains to integrity, values, and employees' attitudes toward control and management, focusing on management philosophy, leadership style, and responsibility sharing. It encompasses standards, processes, and structures supporting internal control continuity. A positive control environment fosters effectiveness in internal control implementation (Rizaldi, 2015: 846).

The researcher defines the control environment as the extent of integrity, ethical values, commitment to competence, human resource practices, and organizational structure.

## 2. Risk Assessment

The Banking Regulation and Supervision Board defines risk management as encompassing all mechanisms associated with establishing standards, preparing reports, ensuring adherence to standards, making decisions, and executing them. These mechanisms, established by the board of directors, aim to monitor, control, and if needed, adjust the risk/return profile of future cash flows for the bank. This ultimately impacts the quality and extent of the bank's operations (Bayyoud & Sayyad, 2015 : 157).

According to the Banking Regulation and Supervision Board, risk management is defined as "all mechanisms related to the process of setting standards, preparing reports, verifying compliance with standards, making



decisions, and implementing them, which are established by the board of directors for monitoring and control, and if necessary, changing the risk/return structure of future cash flows for the bank, and thus the quality and scope of its activities" (Bayyoud & Sayyad, 2015 : 157).

Likewise, according to (Al-Zwyalif, 2015: 59) organizations need to recognize and assess different factors that could potentially jeopardize their operations. This process of identifying and analyzing risks, and determining strategies to mitigate them, is commonly known as risk assessment.

Bett and Memba have introduced a contemporary interpretation of risk assessment, defining it as the systematic process of identifying and evaluating management-associated risks to ensure the accurate preparation and presentation of financial information in compliance with widely accepted accounting standards. This process entails employing systematic methods to identify, analyze, and ultimately address these risks (Bett & Memba, 2017 : 107).

The researcher indicates that risk assessment is a process of analyzing and estimating potential events that may affect the company's objectives, with the aim of preparing and taking appropriate actions.

### **3. Auditing Activities**

The lack of an internal control system in a company not only leads to poor management of human resources and other business operations but also increases the likelihood of negative consequences for the company. Currently, auditing activities have become highly relevant in the context of economic instability, as they allow for the identification of economic reserves and the improvement of business activities for companies (Akhmetshin et al., 2019: 39).

Auditing activities are defined as sets of behaviors that help implement management directives. They include performance reviews (comparing actual performance with plans, forecasts, and previous period outputs), record-keeping (necessary for verification of reliability, completeness, and payment authorization), physical control (related protection for documents and other assets), and duty segregation (Abiodun, 2020: 6409).

The researcher defines auditing activities as meticulous assessments of the company's financial records and operational processes, including examination of accounting records, evaluation of internal controls, verification of compliance with laws and regulations, and assurance of the accuracy of financial reports.

#### **4. Information and Communication**

Communication is essential for making effective decisions. It is the means through which decision-related information is conveyed, serving as the foundation for decision implementation. Since communication is a dynamic process within any organizational system, information is crucial for companies to fulfill their control responsibilities in order to achieve their objectives. Management receives, generates, and appropriately utilizes information to support the functioning of all control components (Abu Naser et al., 2017: 41).

Bett and Memba assert that internal control encompasses a process aimed at identifying, capturing, and disseminating all essential information promptly to facilitate individuals in meeting their obligations regarding financial reporting. It is imperative for companies to implement internal control systems and information mechanisms that generate operational outcomes, financial data, and compliance reports to enable effective business management and oversight. The availability of pertinent information and

efficient communication channels forms fundamental components of the internal control system (Bett & Memba, 2017 : 107).

The researcher describes information and communication as the process of identifying relevant information, capturing it, and conveying it in a manner and timeframe that enables individuals to fulfill their duties related to financial reporting.

## **5. Monitoring**

Monitoring is one of the functions of internal control in companies. Studies have indicated that monitoring involves independent process examinations and evaluations of control activities in the company's operations. Despite being an important functional activity for internal control in companies during their operational periods, most companies do not implement this practice, negatively impacting their financial performance (Njeri, 2014: 42).

Furthermore, monitoring plays a significant role in determining the level of audit operations in the company, enabling the achievement of results for the purpose of assessing the risks of the company's operations. The use of monitoring aims to improve the internal control system using a risk-based approach (Bulgakov & Makarenko, 2022: 3).

The researcher delineates monitoring as the systematic assessment of the internal control framework's efficacy over a period, wherein the frequency of appraising the quality and efficiency of internal controls is gauged and reassessed over time.

## **Second Axis : Banking Performance**

### **First : Concept of Banking Performance**

The banking sector plays a vital role in public life, as the vast majority of services involve the participation of the banking sector. This is because the

banking sector acts as a financial intermediary between parties with surplus funds and those in need of financing, as well as an institution that facilitates the flow of payment transactions. Therefore, it is important for the bank itself to maintain the trust of the community that places its money in the bank to preserve liquidity reserves so that the bank can achieve high profitability (Kusmana & Sumilir, 2019 : 34). In a related context, there are several factors that enhance the performance of banks, including those related to the specific characteristics of the bank and the macroeconomic environment in which it operates. The key factors considered include the size of the bank, its capital, cost efficiency, diversification, market strength, and macroeconomic factors typically included in bank performance analysis, such as GDP growth and inflation (Ibrahim, 2020 : 489).

Banking performance is defined by (Albderi et al., 2023 : 3) as a continuous comprehensive activity reflecting the success, continuity, and adaptability of the bank to its environment or its acquisition according to specific criteria set by the bank according to its business requirements. The researcher believes that banking performance reflects the effectiveness and efficiency of the bank in achieving its objectives and meeting the needs of customers. This concept includes measuring profitability, effective risk management, improving banking services, contributing to economic development, and compliance with financial regulations and standards.

## **Second : Dimensions of Banking Performance**

In measuring banking performance, the researcher relied on a study (Al-Zubaidi & Jassim, 2020), as the dimensions of banking performance according to the study were represented by (the financial axis, learning and growth, the customer axis, and operational processes), and they can be explained as follows :

### **1. Financial Axis**



Profitability metrics can serve as a good example of the financial axis, such as cash flow, market share enhancement, and sales growth, as shareholders need satisfaction through profit distribution, and in the absence of cash (Rashid, 2020 : 64).

The financial axis can be defined according to (Muda et al., 2018 : 1327) as the ability to generate financial resources, achieve financial objectives, and financial management. In a related context, (Reda et al., 2019 : 505) indicated that the financial axis is a tool for measuring strategic profitability, based on the amount of operating income and the return on capital to be achieved.

The researcher defines the financial axis as focusing on the financial aspects of the company, such as financial return, costs, profitability, and liquidity, and it is considered a vital indicator for understanding the comprehensive efficiency and sustainability of institutional performance.

## **2. Learning and Growth**

This dimension identifies the capabilities through which the company grows to achieve high-level internal operations, creating value for customers and shareholders, thus enhancing growth and learning within the company (Reda et al., 2019 : 506).

In an interconnected context, the dimension of learning and growth defines the framework that the company needs to establish to achieve sustainable growth and excellence. This includes technology and systems used, operational efficiency in business, dimensions of internal operations, as well as the skills of creative employees and fostering innovation (Grayb & Yousaf, 2021 : 8).

The researcher defines learning and growth as the company's ability to acquire knowledge and develop skills, both essential factors for achieving



integration and sustainable development in a changing business environment.

### **3. Customers**

The current dimension identifies the targeted market sectors and measures the company's success in those sectors, enabling the company to control its growth objectives. Market share, the number of new customers, and customer satisfaction are used to measure this dimension (Reda et al., 2019 : 505).

In a related context, through the customer dimension, the company management measures the performance of the business with its targeted customers. These metrics generally include customer satisfaction, retention methods, determining customer profitability, and identifying the company's market share from the targeted customers (Grayb & Yousaf, 2021 : 8).

The researcher defines the customer dimension as the process through which the company focuses on understanding and meeting customer needs, thereby enhancing satisfaction and loyalty. Consequently, it plays a vital role in improving company performance and achieving sustainable success.

### **4. Operational Processes**

Companies need to adopt innovation in products and processes to create value for customers. The innovation process should include identifying opportunities for new products and services, managing research and development, and delivering high-quality products and services to the markets (Agarwal, 2019 : 3).

The operational processes perspective emphasizes critical internal processes and activities aimed at ensuring customer satisfaction and driving the financial prosperity of the organization. It underscores the translation of

customer-centric interactions into internal initiatives necessary for fulfilling customer expectations and attaining organizational objectives. Identifying key business processes is imperative for companies to align their operations with organizational goals and meet customer needs effectively (Owolabi et al., 2020 : 4557).

The operational perspective focuses on the value chain in the company and deals with efficiency, effectiveness, quality, and performance in both processes and products in all aspects of the business (Kadhim & Khalaf, 2022 : 623).

The researcher defines operational processes as the execution of daily activities and core operations in the company, focusing on improving efficiency and quality to achieve effective performance and operational effectiveness.

### **Third Axis : The role of internal control in improving the Performance of Banks**

Studies have shown the importance of internal management structure and financial outcomes. Internal control aims to improve banking performance and reduce the risk of money loss while enhancing the accuracy of financial data and compliance with laws. The comprehensiveness of internal control in dealing with financial data and compliance with laws is considered a fundamental tool for achieving organizational goals. Research indicates that effective internal control contributes to solving company problems and reducing agency costs, thereby improving banking performance reports (Hanoon et al., 2021 : 2520).

## Third Topic

### The Practical Side

#### First : Validity and Reliability of Measures

##### 1. Validity Testing of the Measurement

To ensure the validity of the study's tool in measuring its variables and dimensions as planned, the researcher conducted several tests to verify its validity and reliability. The simplicity and clarity were taken into consideration when preparing the questionnaire, formulating all its questions, and arranging its items. The validity and reliability of the study's questionnaire were tested to confirm the tool's ability to measure its variables according to the established criteria. In order to obtain accurate and objective data, the questionnaire underwent several tests before being distributed to the respondents. Two types of validity tests were conducted on it before its distribution to the sample individuals :

**A. Face Validity :** To ensure the ability of the study tool to measure all variables, a face validity test was conducted for the questionnaire items after its preparation. This involved presenting the questionnaire to a group of expert judges to verify the validity of the items and their suitability for the study hypotheses and objectives. The clarity of the expressions, the level of concentration, and the absence of dispersion were assessed to facilitate accurate responses from the respondents. After gathering their opinions and suggestions regarding deletion, addition, or modification of items as recommended, the questionnaire was finalized to be ready for adoption in the intended measurement process.

**B. Reliability of the Measures and Variable Coding :** Ensuring the reliability of the study tool used was achieved by utilizing the Cronbach's Alpha coefficient. The obtained value for the Cronbach's Alpha coefficient

was (94.2%), which exceeds the minimum threshold of (70.0%). This indicates the validity and strength of the study tool used. Consequently, it can be reapplied to the same community and sample in other periods or applied to a different community and sample. Table (1) illustrates this.

**Table 1 : Reliability measurement for the study variables and their dimensions**

Variables	Dimensions	Symbols	Cronbach's alpha	Cronbach's alpha for all dimensions
Internal Control	Control environment	1-5	٠.٨٣١	٠.٩٤٢
	risk assessment	6-9	٠.٧٠٢	
	Oversight activities	10-14	٠.٧٩١	
	Information and communication	15-18	٠.٧٢٣	
	Monitoring	19-22	٠.٨١٩	
Banking performance	Financial dimension	23-27	٠.٨٣٦	٠.٩٤٢
	Growth and learning	28-31	٠.٧٣٨	
	customers	32-36	٠.٨١٨	
	Operational processes	37-40	٠.٨٣٦	

## Secondly : Presentation, Analysis, and Interpretation of Research Results

In this section, the internal control and banking performance variables are elaborated and assessed. It involves presenting statistical measures such as

mean values, standard deviations, response levels, and the relative significance of questionnaire items. Responses are evaluated using an arithmetic mean and categorized into predefined groups. The questionnaire employs a Likert scale with five points, ranging from strongly agree to strongly disagree. Categories are determined by dividing the range (4) by the number of categories (5), resulting in 0.80. This value is then added to the minimum scale limit (1) or subtracted from the maximum limit (5) to determine the categories for each item, as illustrated in the table.

**Table 2 : Degrees and levels of evaluation of computational media**

<b>Estimating grades</b>	<b>Answer level</b>
1.80-1	<b>very low</b>
2.60-1.81	<b>low</b>
3.40-2.61	<b>Moderate</b>
4.20-3.41	<b>high</b>
5.00-4.20	<b>very high</b>

## **1. Internal Control**

### **Environment of Control**

Table (3) provides a statistical overview, including arithmetic means, standard deviations, and a response level categorized as "moderate." The arithmetic mean is recorded as (3.03) with a standard deviation of (0.86). This suggests that the bank under study demonstrates a reasonable level of adherence to the Iraqi Unified Accounting System and internal control protocols. However, this adherence is observed to be moderate rather than at the optimal level required.



## **Risk Assessment**

Upon reviewing Table (3), it becomes apparent that the arithmetic mean for this particular dimension was recorded as (2.83), accompanied by a standard deviation of (0.82), indicating a response level categorized as "low." This implies that the bank under investigation falls short in adhering to standards aimed at mitigating risks that impede the achievement of the bank's objectives.

## **Control Activities**

Table (3) provides an overview of the statistical analysis concerning control activities. It reveals that the arithmetic mean obtained was (3.34), accompanied by a standard deviation of (0.75), indicating a "moderate" response level. These findings suggest a consistent perspective among the respondents in the research sample regarding the importance of these activities in facilitating effective internal control.

## **Information and Communication**

Table (3) outlines the statistical analysis findings pertaining to the information and communication dimension, indicating an arithmetic mean of (3.27) and a standard deviation of (0.71). These results suggest a consistent response level among the research sample, categorized as "moderate." This implies the perceived significance of information in decision-making and rectifying actions, as well as the importance of continuous communication within and outside the bank with various stakeholders, according to the respondents.

## **Monitoring**

Table (3) presents the statistical summary for the monitoring dimension, indicating the highest arithmetic mean of (3.81) with a standard deviation of

(0.82). This reflects a consistent response level among the sample, categorized as "high." The results suggest that respondents recognize the significance of monitoring in creating a conducive environment that minimizes the adverse impacts of errors, thereby improving the effectiveness of internal control processes.

## **2. Banking Performance**

### **Financial Dimension**

The findings from Table (3) reveal a weighted arithmetic mean of 3.19 for the financial dimension, accompanied by a standard deviation of 0.86 and a variance coefficient of 0.27. This suggests that the data is relatively homogeneous and not widely dispersed, with a response intensity ratio of 63.8%. It indicates a notable level of interest from the study sample in the financial perspective of the researched bank, driven by its association with the economic outcomes stemming from past activities.

### **Learning and Growth**

Table (3) indicates that the weighted arithmetic mean for the learning and growth dimension was 3.54, with a standard deviation of 0.79 and a variance coefficient of 0.22. The response intensity percentage was 70.8%. Notably, all arithmetic means for the items within the learning and growth perspective exceeded the hypothetical mean. These findings suggest that, according to the study sample, the researched bank prioritizes offering growth and innovation opportunities to its employees. This emphasis on development aims to support initiatives for change and improvement, aligning with the pursuit of long-term goals.

### **Customers**

The findings from Table (3) reveal that the weighted arithmetic mean for the customer dimension was 3.35, surpassing the hypothetical mean of 3. The standard deviation was 0.84, with a variance coefficient of 0.25, indicating data homogeneity. The response intensity percentage for the customer perspective among the study sample was 67%, reflecting a notable interest in this aspect. Additionally, the arithmetic means for the items within the customer perspective exceeded the hypothetical mean. These results suggest that the researched bank is dedicated to identifying customers and target markets, along with employing strategies to deliver value to both customers and markets.

### Operational Processes

The analysis of Table (3) reveals that the weighted arithmetic mean for the operational processes dimension was 3.17, with a standard deviation of 0.82 and a variance coefficient of 0.26. The overall weight for the response intensity of the study sample was 63.4%, indicating a considerable interest in the operational processes perspective among participants. All arithmetic means for the items within this dimension exceeded the hypothetical mean. These findings suggest that the researched bank, as perceived by the study sample, prioritizes processes and activities that differentiate it from competitors and significantly influence customer satisfaction, loyalty, and the attainment of financial objectives.

**Table 3 : Descriptive statistics for the research variables**

variable	Arithmetic mean	standard deviation	Coefficient of variation	Relative importance
Control environment	3.03	0.86	0.28	60.6
risk assessment	2.83	0.82	0.29	56.6
Oversight	3.34	0.75	0.22	66.8

<b>activities</b>				
<b>Information and communication</b>	<b>3.27</b>	<b>0.71</b>	<b>0.22</b>	<b>65.4</b>
<b>Monitoring</b>	<b>3.81</b>	<b>0.82</b>	<b>0.22</b>	<b>76.2</b>
<b>Financial dimension</b>	<b>3.19</b>	<b>0.86</b>	<b>0.27</b>	<b>63.8</b>
<b>Growth and learning</b>	<b>3.54</b>	<b>0.79</b>	<b>0.22</b>	<b>70.8</b>
<b>Customers</b>	<b>3.35</b>	<b>0.84</b>	<b>0.25</b>	<b>67</b>
<b>Operational processes</b>	<b>3.17</b>	<b>0.82</b>	<b>0.26</b>	<b>63.4</b>

### Thirdly : Testing Research Hypotheses

Before proceeding with hypothesis testing to assess the impact, it is crucial to evaluate the nature and strength of the relationship between variables using correlation matrices. Initially, the Pearson correlation matrix is utilized. Analyzing the strength and nature of the relationship between research variables, alongside preliminary evidence, reveals a correlation between them, as demonstrated in the table below:

**Table 3 : Correlation Matrix of Research Variables**

<b>Correlations</b>			
		<b>Internal Control</b>	<b>Banking performance</b>
<b>Internal Control</b>	<b>Pearson Correlation</b>	<b>1</b>	<b>** ٨١٥.</b>
	<b>Sig. (2-tailed)</b>		<b>.000</b>
	<b>N</b>	<b>٧٥</b>	<b>٧٥</b>
<b>Banking</b>	<b>Pearson</b>	<b>** ٨١٥.</b>	<b>1</b>

<b>performance</b>	<b>Correlation</b>		
	<b>Sig. (2-tailed)</b>	<b>.000</b>	
	<b>N</b>	<b>٧٥</b>	<b>٧٥</b>
<b>level (2-tailed). ٠١**. Correlation is significant at the 0.</b>			

The Pearson correlation matrix presented in Table (3) reveals significant relationships between all research variables. This initial finding provides a basis for testing the hypotheses regarding both the direct and mediating effects between these variables.

For example, the correlation coefficient between internal control and banking performance was 0.815, significant at the 0.01 level. This strong and significant correlation indicates a positive association between these variables.

#### **A. Testing the Sub-Hypotheses Related to the Main Hypothesis**

Table (4) indicates that the sub-dimensions of internal control, such as control environment, risk assessment, control activities, information and communication, and monitoring, as well as the sub-dimensions of banking performance, including financial dimension, growth and learning dimension, customer dimension, and operational processes, all exhibit statistical significance. Consequently, the sub-hypotheses of the first main hypothesis are accepted, suggesting a significant positive relationship between the dimensions of internal control and banking performance. However, it's noteworthy that the relationship between the learning and growth dimension and the control environment was not found to be significant. The success rate of these hypotheses stands at 99%.



**Table 4 : The correlation matrix between the dimensions of the research variables**

		Financial dimension	Growth and learning	customers	Operational processes	Banking performance
Control environment	Pearson Correlation	.571**	.117	.720**	.689**	.708**
	Sig. (2-tailed)	.000	.317	.000	.000	.000
	N	٧٥	٧٥	٧٥	٧٥	٧٥
risk assessment	Pearson Correlation	.499**	.236*	.705**	.610**	.685**
	Sig. (2-tailed)	.000	.041	.000	.000	.000
	N	٧٥	٧٥	٧٥	٧٥	٧٥
Oversight activities	Pearson Correlation	.543**	.271*	.736**	.698**	.748**
	Sig. (2-tailed)	.000	.019	.000	.000	.000
	N	٧٥	٧٥	٧٥	٧٥	٧٥
Information and communication	Pearson Correlation	.607**	.255*	.718**	.701**	.762**
	Sig. (2-tailed)	.000	.027	.000	.000	.000
	N	٧٥	٧٥	٧٥	٧٥	٧٥
Monitoring	Pearson Correlation	.837	.346	.788	.896	.866
	Sig. (2-tailed)	.000	.002	.000	.000	.000
	N	٧٥	٧٥	٧٥	٧٥	٧٥
Internal Control	Pearson Correlation	.597**	.331**	.786**	.742**	.815**
	Sig. (2-tailed)	.000	.004	.000	.000	.000
	N	٧٥	٧٥	٧٥	٧٥	٧٥

Source: Prepared by the researcher based on the outputs of the SPSS V26 program

\*\* . Correlation is significant at the 0.01 level (2-tailed)

Fourthly : Testing the Research Hypotheses

The research hypotheses will be tested using structural equation modeling, which is one of the best methods for testing direct and indirect effects among various variables. It allows researchers to evaluate and determine linear relationships between variables, making it the preferred alternative for path analysis, multiple regression, and confirmatory factor analysis, as well as time-series analysis.

For the purpose of testing the main hypothesis of the research, which involves testing the direct effects between the research variables:

Main Hypothesis: There is a significant relationship between entrepreneurship and sustainable performance.

**Table 5 : Regression Weights for Testing the Direct Impact Hypotheses of Internal Control on Banking Performance**

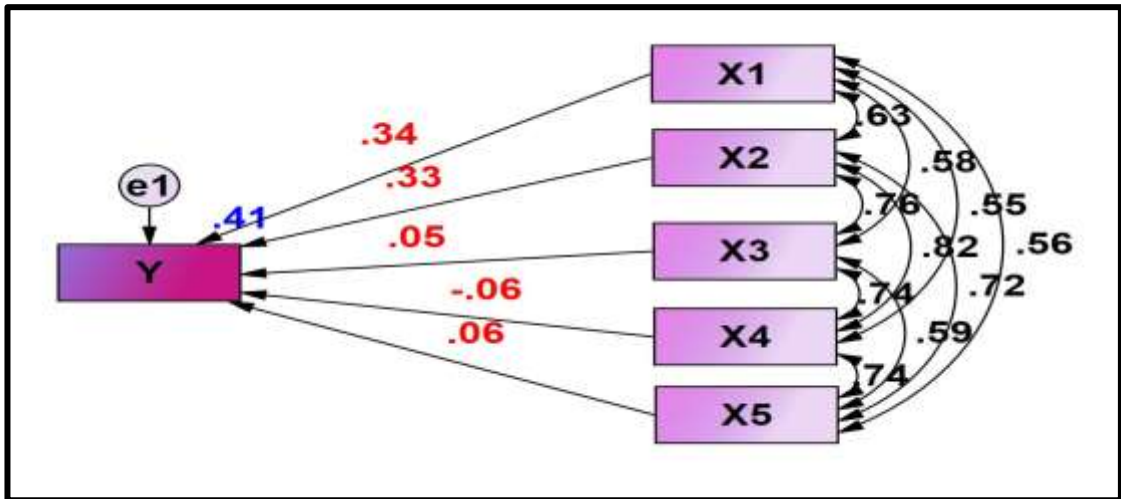
result	$R^2$	level of significance	Standard error	Impact value	Direct regression path		
Accept The Hypothesis	0.665	0.000	0.072	0.869	Banking performance	←--	Internal Control

What's noticed from Table (5) are a set of results indicating the validity of the second main hypothesis regarding the direct effect. The coefficient of determination (interpretation) ( $R^2$ ) for internal control in banking performance reached (0.665) with a significance level of (0.000). This indicates that internal control contributes to explaining 66.5% of the variations in banking performance. The remaining percentage (33.5%) is attributed to contributions from other variables not included in the research model.

### A. Testing the Sub-Hypothesis of the Second Main Hypothesis

To test the validity of the research hypothesis concerning the nature of the effect compared to a sub-hypothesis of the second main hypothesis, which

posits that there is a statistically significant effect between the dimensions of internal control and banking performance, a model was developed. This model aims to assess the relationship between these dimensions. In summary, the hypothesis can be tested using the following format:



**Figure ٢ : The value of the coefficient of determination**

The standardized estimates provided by the above model represent the coefficients in a multiple regression model. In this model, the dimensions of internal control (Control Environment, Risk Assessment, Control Activities, Information and Communication, Monitoring) are represented by independent variables (X\_5, X\_4, X\_3, X\_2, X\_1) respectively, while banking performance (Y) is the dependent variable. The estimated values (beta = 0.34, 0.33, 0.05, 0.06, 0.06) indicate that the dimensions of internal control significantly influence and contribute to banking performance.

Furthermore, the model's coefficient of determination (R-squared) is 0.41, indicating that 41% of the variance in banking performance can be explained by the independent variables (Control Environment, Risk Assessment, Control Activities, Information and Communication, Monitoring). The remaining 59% of the variance is attributed to other external factors and

causes not included in the model. Additionally, the large and high correlation coefficients between the variables suggest a strong direct relationship between them.

## **Fourth Section**

### **Conclusions and Recommendations**

#### **First : Conclusions**

1. Through the analysis, it became evident that the researched bank adheres accurately to the Iraqi Unified Accounting System, as well as internal control procedures, albeit at an average level, not at the desired level.
2. It also became apparent that the researched bank does not adhere to standards that mitigate risks hindering the determination of bank objectives.
3. The consistency in the sample's responses and their estimation of the role of information and communication in decision-making and corrective actions is evident. Continuous communication within the bank and with external parties enhances the bank's performance effectiveness.
4. Monitoring plays a significant role in creating a positive environment that reduces the negative impacts of errors and enhances the effectiveness of internal control processes.
5. The researched bank's interest in the financial perspective is evident due to its link to the economic outcomes resulting from various activities previously undertaken.
6. Based on the statistical analysis results, it became evident that the bank provides employees with growth and innovation opportunities, contributing to supporting efforts for long-term goal achievement.

7. The researched bank seeks to identify customers and market segments it competes in, as well as the means it uses to provide customers and markets with value.
8. There is significant interest from the researched bank in operations and activities that distinguish it from competitors and have a significant impact on customer satisfaction, loyalty, and financial goal achievement.

### **Secondly : Recommendations**

1. The researcher recommends that the researched bank enhance its adherence to internal control procedures to achieve the desired level of effectiveness and compliance.
2. Efforts should be made to improve adherence to financial standards to mitigate risks and identify bank objectives more accurately and effectively.
3. Emphasis should be placed on the importance of enhancing continuous communication within the bank and with external parties to enhance performance effectiveness and decision-making.
4. There is a need to strengthen the role of monitoring to create a positive environment that reduces the impacts of errors and enhances internal control effectiveness.
5. It is essential to continue focusing on the financial perspective and linking it to economic outcomes to ensure the continued improvement of the bank's financial performance.
6. The researched bank should exert more efforts to enhance growth and innovation opportunities for employees to support long-term change efforts and goal achievement.
7. The researched bank should improve customer and market segmentation strategies to enhance value delivery to customers.



8. Enhancing the bank's focus on improving operations and activities that positively impact customer satisfaction and financial goal achievement is crucial.

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