



# THE RELATIONSHIP BETWEEN MARKET INDICATORS (ISX INDEX, SHARE PRICE, TRADING VOLUME) AND THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS. AN ANALYTICAL STUDY OF A SAMPLE OF IRAQI BANKS FOR THE PERIOD (2014-2023)

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Article history:	Abstract:
<b>Received:</b> 28 <sup>th</sup> May 2025 <b>Accepted:</b> 26 <sup>th</sup> June 2025	Financial markets in the world of finance and business are closely and strongly linked to the financial performance of listed companies, most notably commercial banks, as their financial performance increases the desire and demand for investment in their shares. From this perspective, the study aimed to analyze the nature of the relationship between market indicators, represented by the Iraq Stock Exchange (ISX) index, stock prices, and trading volume, and their impact on the financial performance of commercial banks. This was due to the lack of clarity regarding the impact of the financial market on the performance of Iraqi commercial banks. To demonstrate this impact, the study was based on the hypothesis that there is no statistically significant relationship between the impact of market indicators on the financial performance of commercial banks. Through financial and statistical analysis using the SPSSv23 program, the study concluded that there is a medium to strong correlation when considering the model as a whole. However, when considering the indicators individually, it was found that most of the variables are not strongly related to financial performance at a significance level of 5%. Therefore, it can be said in general that there is no statistical relationship between the study variables. The study recommended working to increase financial disclosure and transparency by the banks in the study sample in a way that presents data and achievements in a regular and clear manner. This positive data and information are reflected more effectively in stock prices and trading volume.

**Keywords:** ISX, stock price index, trading volume index, financial performance

## INTRODUCTION

Financial markets play a significant role in stimulating a country's national economy. They facilitate the circulation of funds and move the wheel of money. An active financial market transforms funds from hoarding at home to investment, attracting financial investment into the country. In Iraq, financial markets are still primitive, and at best, they can be said to be in their early stages of development. Commercial banks must strive to improve their financial performance and present their financial data, which are indicators of their stable performance. This positioning them in a position of strength encourages investors to invest in their shares, increases demand for them, and secures a suitable market share. There are a number of market indicators that are key and effective tools that reflect and represent the overall performance of the market, its movements, and trends. They also provide a picture that reflects banks' financial



performance in terms of profitability, efficiency, and liquidity, such as the Iraq Stock Exchange (ISX) index, stock prices, and trading volume.

## **1. Research Methodology**

### **1.1 Study Problem**

Although most commercial banks are listed on the Iraq Stock Exchange, the irregularity and instability of their market indices has been noted. This has led banks to face numerous challenges, particularly market fluctuations, the level of transparency, and financial disclosure, in contrast to the actual financial performance of these banks.

Hence, the fundamental question of the study's problem is as follows:

"Is there a statistically significant relationship between market indices (the ISX index, stock price, and trading volume) and the financial performance of commercial banks?"

Through this question, the study attempts to broadly and in-depth analyze the relationship between financial performance and market determinants, with the goal of providing clarity and providing investors and decision-makers with more accurate information about the efficiency of the Iraqi market.

### **1.2 Importance of the Study**

The importance of the study stems from the urgent need to understand and develop the mechanisms of the relationship between the performance of banks in the Iraq Stock Exchange and their actual financial performance, in an economic environment characterized by constant changes and the challenges of transparency in the provision and disclosure of information and data. The importance of the study also lies in its contribution to providing investors, decision-makers, and financial analysts with accurate and clear scientific information that helps them evaluate bank performance based on reliable market indicators.

### **1.3 Study Objectives**

The study aimed to:

- Shed light on market indicators and the financial performance of the banks in the study sample.
- Demonstrate the impact of market indicators on the financial performance of the commercial banks in the study sample.
- Understand how these indicators can explain and analyze changes in financial performance.
- Provide a practical vision that contributes to improving the efficiency of investment decision-making in the Iraqi market.

### **1.4 Study Hypotheses**

The research was based on a main hypothesis:

There is no statistically significant relationship between the impact of market indicators (ISX index, stock price index, trading volume index) on the financial performance of commercial banks.

From this, four sub-hypotheses branch out:

- There is no statistically significant relationship between the impact of market indicators (ISX index, stock price index, trading volume index) on the financial performance of Ashur Bank.
- There is no statistically significant relationship between the impact of market indicators (ISX index, stock price index, trading volume index) on the financial performance of Bank of Baghdad.
- There is no statistically significant relationship between the impact of market indicators (ISX index, stock price index, trading volume index) on the financial performance of Gulf Bank.
- There is no statistically significant relationship between the impact of market indicators (ISX index, stock price index, trading volume index) on the financial performance of Middle East Bank.

### **1.5 Research Population and Sample**

A. **Research Population:** Commercial banks listed on the Iraq Stock Exchange

B. **Research Sample:** The following banks were selected due to the availability of their financial data:

- 1) Ashur Commercial Bank
- 2) Baghdad Commercial Bank
- 3) Gulf Commercial Bank
- 4) Middle East Commercial Bank

## **2. The Theoretical Aspect of the Study**

### **2.1 The Concept of Financial Markets**

Financial markets are defined as the need for a link between investors and savers that ensures the flow and transfer of funds from investors to savers with ease and flexibility, given the essential role of capital in investment operations, project financing, and economic stimulation (Ross, et al., 2008: 88). They are also defined as the environment that connects entities with financial surpluses and those wishing to invest with entities in need of financing for investment



purposes, through specialized channels operating in the market (Hall, 2002: 4). They are also defined as the place where all available information is embodied, whether financial reports, data issued by the media, or historical stock prices (Arshad, 2017: 65). Financial markets are systems through which financial instruments are traded and represent the vital center of the economy, responding effectively and quickly to information circulating in the market, leading to price movements. When these markets are effective, they create a favorable environment for the emergence of new companies and the growth of existing ones (Cecchetti et al., 2017:55). A financial market is a market in which financial assets such as stocks and bonds are traded. It facilitates the movement of funds, thus supporting financing and investment for individuals and companies (Madura, 2014:3). Individuals also exchange securities and derivatives. A financial market is considered a set of systems that enable exchange among its participants (De Haan et al., 2012:131). Financial markets are physical places or electronic systems that facilitate the movement of funds between investors, governments, and companies. The field of investment includes the marketing, sale, and analysis of securities, in addition to managing investment risks through portfolio diversification (Melicher, & Norton, 2013:4).

## **2.2 The Importance of Financial Markets**

The importance of financial markets lies in the demand for and reinvestment of funds through several key factors, the most prominent of which are the following:

1. Financial markets encourage savers to pool and increase financial resources to finance investors participating in securities offerings such as stocks and bonds (Sultan, 2015:14).
2. Effective management and specialized offices with expertise in this field enable the ability to provide advice and information to companies issuing traded financial instruments (Abdul Haq, 2017:9).
3. Financial markets are an indicator of economic conditions, as they help identify general trends that contribute to the forecasting process, which helps investors choose the most profitable securities to invest in (Mahmoud, 2014:395).
4. They connect savers and investors, or between entities offering securities such as stocks, bonds, monetary instruments, and derivatives, and those wishing to purchase them (Ross, et al., 2008:88).

## **2.3 Iraq Stock Exchange Indicators**

### **1. The Iraq Stock Exchange General Index**

The general index provides an overview of changes in stock prices based on objective factors that directly or indirectly affect the investment environment, such as exchange rates, interest rates, economic activity, political conditions, and the psychological effects of investors (Brihi and Fadhel, 2019: 400). The general index of stock prices is of great importance, as it is considered one of the basic tools that investors rely on to monitor stock price movements in the Iraq Stock Exchange, given its influential role in guiding their investment decisions (Tenth Annual Report, 2013: 11).

### **2. Stock Price Index**

A statistical measure used to estimate the overall performance of the market. It consists of the average prices of a number of stocks, which are used as an indicator of the general direction of market movement (Abdul Hakim and Daloul, 2016: 257).

### **3. Trading Volume Index**

The trading volume index reflects the value of stocks traded in the market over a specific period of time. This index provides important indications about the strength of the market and its potential future rise or fall. The intensity of buying and selling activities over a specific period leads to increased trading volume, which increases the level of demand during that period, which is a potential signal of an upcoming price increase (Abdul Hakim and Daloul, 2016: 257).

## **2.4 Financial Performance**

The word "performance" refers to the efficiency of financial firms in adequately meeting the needs of their shareholders (owners), depositors, and other creditors and borrowing customers (Rose, 2008: 163). Financial performance is also considered the most appropriate measure of corporate performance in general, and banks in particular. It is often described as bank profitability, as profit margins are used to measure financial performance. Financial performance is the ability of a company or bank to generate information in a pre-defined dimension related to a goal (Laitinen, 2002: 65). Financial performance is also known as the most appropriate measure of corporate performance in general, and banks in particular, and is often described as bank profitability, as profit margins are used to measure financial performance (Johnston & Marshall, 2010: 397). It is a means of providing bank management with feedback, which it relies on when formulating strategies and improving its performance. Evaluating financial performance also helps the bank identify deviations in its performance and work to analyze and address these deviations in order to achieve strategic objectives that assist it in making decisions related to financial matters. (Jonse & Georg, 2004:374 ).

## **2.5 The Importance of Financial Performance**



Financial performance is one of the most important priorities for management in banks, as it enables them to assess their position, the extent of their competitiveness, and their ability to confront the fierce competition in financial markets (Zhang & Li, 2009: 206).

The importance of evaluating financial performance lies in the following:

- It contributes to directing senior management toward the position of responsibility that requires the greatest degree of supervision.
- It relies on improving the investment of human resources in the organization in the future, as successful elements are strengthened and developed, while ineffective elements that need to be eliminated are identified.
- Enabling officials to make effective decisions that achieve objectives by focusing their efforts on measurable and evaluable areas (Ben Malek Amar, 2010: 83).

## 2.6 Factors Affecting Financial Performance

The factors affecting the financial performance of commercial banks are divided into two groups:

1. **Internal factors:** These factors result primarily from the bank's internal decisions. They are the bank's specific characteristics that impact its performance and are divided into:
  - A. **Financial leverage:** Financial leverage is defined as the extent of reliance on debt financing, measured by the debt-to-equity ratio. It is an indicator of the bank's reliance on borrowed funds in its operations. A high ratio indicates an increased risk of financial distress or bankruptcy, especially if the bank is unable to meet its obligations. When these obligations are not met, the bank faces difficulties in obtaining additional financing from the market (Ahna, 2006: 317).
  - B. **Liquidity:** Liquidity reflects a company's ability to meet its short-term obligations within the following year, using its readily convertible assets. Liquidity is typically measured by the current ratio, or the ratio of current assets to current liabilities. This ratio reflects a company's ability to quickly convert assets into cash and its efficiency in managing working capital within normal operating limits. (Liargovas & Skandalis, 2008: 184)
  - C. **Financial Efficiency:** Efficiency is a measure equivalent to the value of money and represents one of the key indicators used to evaluate banks' financial performance. Efficiency expresses the relationship between the resources used (inputs) and the results achieved (outputs) in order to achieve objectives. (Doehring, 2011: 3)
  - D. **Bank Size:** Large institutions may be able to benefit from economies of scale and scope, but some may suffer from low levels of efficiency, which negatively impacts their financial performance. On the other hand, small businesses face major challenges in keeping up with large businesses, especially in highly competitive markets (Athanosoglou et al., 2005:4). There is a direct relationship between the size of the bank and the level of profitability, which is directly reflected in the financial performance, and this is considered a positive indicator of the bank's efficiency (Vijayakumar & Tamizhselvan, 2010:44).
2. **External factors:** These are external influences surrounding the bank's operations that cannot be directly controlled. The most important of these influences are:
  - A. **Legal and political factors:** These are embodied in the legal and political framework of the country within which banks operate. Banking operations are subject to the declared official legislation and regulations, which are binding and may not be violated.
  - B. **Economic factors:** These include the prevailing economic activities in the country in which the bank operates, their impact on banking operations and available resources, as well as the investment environment and opportunities provided by the market.
  - C. **Sociocultural factors:** These refer to the traditions, customs, and beliefs adopted by society, as well as the level of awareness and prevailing culture that influence the decisions of individuals and society regarding dealing with banking activities and the services provided by banks (Kotler, 2004:66)

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## 3. Practical Aspect

### 3.1 Financial Analysis of the Study

This part of the study aims to clarify the financial values collected for the sample banks (Ashur Bank, Bank of Baghdad, Gulf Bank, and Middle East Bank) during the study period, based on the financial performance indicators of the commercial banks in the study sample. The Z-SCORE model was used, which expresses the financial performance of banks if the performance indicators of commercial banks are adopted (capital adequacy index, return on equity ratio, non-performing loan ratio, return on assets ratio, loan-to-deposit ratio, and net profits).

#### 1. Ashur Bank

The following table shows that the performance curve of Ashur Commercial Bank has been on the rise during the study period, recording its highest value in the year (2023) at (0.992). In the year (2014), the performance index value was (-1.099). It is clear from the index data that its value has been on the rise, which indicates an improvement in its value.

**Table (1) Market indicators and performance index of Ashur Bank**

year	z score	stock price	Trading volume	ISX
2014	-1.099	0.93	16032.1	1240.07
2015	-0.826	0.43	15909.7	10462.507
2016	-0.523	0.34	407.4	7022.02
2017	-0.341	0.3	1010	7371.74
2018	-0.102	0.23	2195.6	6828.2
2019	0.161	0.24	230.5	5757.94
2020	0.343	0.28	293	5540.41
2021	0.585	0.44	1240.9	6809.76
2022	0.81	0.4	162.2	7041.09
2023	0.992	0.42	1547.3	8827.08
MAX	0.992	0.93	16032.1	10462.507
MIN	-1.099	0.23	162.2	1240.07
MEAN	0	0.401	3902.87	6690.0817

**Source prepared by researchers based on the Central Bank website and market and banking reports.**

The share price varied over the study period, and its instability was noted. The lowest value was recorded in 2018, at 0.23. The highest value was in 2014, with the average share price reaching 0.401.

The highest trading volume was recorded in 2014, at 16,032.1, with the average trading volume reaching 3,902.87, a relatively good value. In 2022, the trading volume was 162.2, which was the lowest trading value.

The value of the general market index also varied during the study period, with the lowest value recorded in 2014, at 1,240.07. The lowest value was recorded in 2015, at 10,462.51.

## **2. Bank of Baghdad**

When tracing the data in Table (2), it becomes clear that the performance stability index of the Bank of Baghdad during the study period has gradually increased in value, with the lowest value of the index being recorded in 2014, equivalent to (-1.101), a value that does not indicate banking stability at all. However, over the years, it is noted that the value of the index improved until it reached its highest value in 2023, when it recorded (1.028), which is a good percentage indicating the stability of the aforementioned bank's financial performance.

**Table (2) Market indicators and performance index of the Bank of Baghdad**

year	z score	stock price	Trading volume	ISX
2014	-1.101	1.55	53879.8	1240.07
2015	-0.799	1.17	30200.7	10462.507
2016	-0.523	0.91	29787.9	7022.02
2017	-0.332	0.61	28437.4	7371.74
2018	-0.085	0.29	28162.2	6828.2
2019	0.079	0.3	12308	5757.94
2020	0.314	0.41	22144.2	5540.41
2021	0.602	1.03	46593.4	6809.76
2022	0.817	1.37	31665.5	7041.09
2023	1.028	3.5	220777	8827.08
MAX	1.028	3.5	220777	10462.507
MIN	-1.101	0.29	12308	1240.07



MEAN	0	1.114	50395.61	6690.0817
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**Source prepared by researchers based on the Central Bank website and market and banking reports.**

The market value of the Bank of Baghdad's share was 1.55 in 2014, before declining in subsequent years. The share value registered a significant decline in 2015, 2016, 2017, 2018, and 2019. This may be due to the security situation in the country. In 2020, the share value began to rise, reaching its highest value in 2023, reaching 3.5, the highest value during the study period. The trading volume of the aforementioned bank did not differ significantly from the share value in terms of volatility. Trading volume in 2014 reached 53,879.8. After that, there was a clear decline and instability in the index value, with the lowest value recorded in 2019, at only 12,308. The value then continued to rise until 2023, when it reached 220,777, the highest value during the study period. The value of the general market index during the study period was also variable, as the lowest value of the index was recorded in the year (2014), which was (1240.07), while in the year (2015), the lowest value of the index was recorded at (10462.51).

### 3. Gulf Bank

Based on the data in Table 3 for Gulf Bank, and looking at the performance index, we note that the value of the Banking Stability Index has taken an upward trend. The lowest value of the index was recorded in the first year of the study, 2014, at (-1.113). The value then gradually increased until it recorded its highest value of (0.98) in 2023, while the average value of the index was (0.0001).

**Table (3) Market indicators and performance index of Gulf Bank**

year	z score	stock price	Trading volume	ISX
2014	-1.113	0.9	149809.2	1240.07
2015	-0.846	0.51	45301.7	10462.507
2016	-0.557	0.45	16167.4	7022.02
2017	-0.279	0.39	18468.3	7371.74
2018	-0.03	0.19	14421.6	6828.2
2019	0.161	0.14	2065.3	5757.94
2020	0.358	0.14	690.1	5540.41
2021	0.554	0.15	4055.9	6809.76
2022	0.773	0.16	3364.5	7041.09
2023	0.98	0.18	3316.1	8827.08
MAX	0.98	0.9	149809.2	10462.507
MIN	-1.113	0.14	690.1	1240.07
MEAN	0.0001	0.321	25766.01	6690.0817

**Source prepared by researchers based on the Central Bank website and market and banking reports.**

As for the Gulf Bank share price, it is noted that the share value has been gradually declining. Its highest value was in 2014, at 0.9. The value then continued to decline until 2019-2020, when the share recorded its lowest value of 0.14. It then rose slightly in the following years, reaching an average share value of 0.321.

The trading volume index values were largely similar to the share price. The highest trading volume value was in 2014, when the index value reached 149,809.2. It then gradually declined until 2020, when the lowest value was recorded at 690.1. This is a very weak value compared to the index value in 2014, at the very least. The average index value during the study period was 25,766.01.

The value of the general market index during the study period was also variable, with the lowest value recorded in 2014, at 1,240.07. (2015) recorded the lowest value of the index at (10462.51).

### 4. Middle East Bank

From Table 4, when examining the financial performance index values for Middle East Bank, we note that the index value has been on the rise after recording its lowest value in 2014, at -1.082. It then rose again in the following years, reaching its highest value in 2023, at 1.035. This is a good percentage, indicating that the bank's financial performance has significantly improved compared to the years at the beginning of the study.

**Table (4) Market indicators and performance index of the Middle East Bank**

year	z score	stock price	Trading volume	ISX
2014	-1.082	0.6	21346.9	1240.07

<b>2015</b>	<b>-0.837</b>	<b>0.51</b>	<b>11323.9</b>	<b>10462.507</b>
<b>2016</b>	<b>-0.551</b>	<b>0.43</b>	<b>27645.1</b>	<b>7022.02</b>
<b>2017</b>	<b>-0.327</b>	<b>0.35</b>	<b>18956.1</b>	<b>7371.74</b>
<b>2018</b>	<b>-0.082</b>	<b>0.13</b>	<b>6147</b>	<b>6828.2</b>
<b>2019</b>	<b>0.163</b>	<b>0.1</b>	<b>2128.4</b>	<b>5757.94</b>
<b>2020</b>	<b>0.325</b>	<b>0.12</b>	<b>792.3</b>	<b>5540.41</b>
<b>2021</b>	<b>0.566</b>	<b>0.2</b>	<b>5227.9</b>	<b>6809.76</b>
<b>2022</b>	<b>0.79</b>	<b>0.14</b>	<b>1552.3</b>	<b>7041.09</b>
<b>2023</b>	<b>1.035</b>	<b>0.12</b>	<b>849.6</b>	<b>8827.08</b>
<b>MAX</b>	<b>1.035</b>	<b>0.6</b>	<b>27645.1</b>	<b>10462.507</b>
<b>MIN</b>	<b>-1.082</b>	<b>0.1</b>	<b>792.3</b>	<b>1240.07</b>
<b>MEAN</b>	<b>0</b>	<b>0.27</b>	<b>9596.95</b>	<b>6690.0817</b>

**Source prepared by researchers based on the Central Bank website and market and banking reports.**

The share price in the market reached 0.6 dinars in 2014, and then declined in the following years until 2019, when the lowest value for the share price in the market was 0.1 dinars. The average value for the share price during the study period was 0.27 dinars. The following years continued at this weak level despite the improvement in the bank's financial performance. The trading volume index was no better than the share price in terms of fluctuations, with the highest value recorded in 2016 at 27,645.1 dinars. This value came after a decline of half the previous year compared to 2014. In 2020, the trading volume value recorded 792.3 dinars, the lowest value during the study period, while the average value for the trading volume for the Middle East Bank was 9,596.95 dinars. The value of the general market index during the study period was also variable, as the lowest value of the index was recorded in the year (2014), where it was (1240.07), while in the year (2015), the lowest value of the index was recorded at (10462.51).

### **3.2 Statistical Analysis of the Study**

This study aims to use simple linear regression analysis to test the direct impact relationships between the dimensions of the independent study variables (stock price, trading volume, general market index) and the dependent variable (financial performance). The coefficient of determination ( $R^2$ ) is used to interpret the magnitude of the impact of the independent variables on changes in the dependent variable, as well as the standard regression coefficient (Beta), which measures the extent of the dependent variable's response when the independent variable changes by one standard degree. Using the Enter method

#### **1. Ashur Bank**

After conducting a linear regression analysis to demonstrate the impact of market variables (share price, trading volume, and the Iraq Stock Exchange (ISX) index) on the financial performance of the bank sampled in the study (Ashur Bank), the results showed that the correlation coefficient between market indicators and the bank's financial performance was relatively strong, reaching ( $R = 0.818$ ), indicating a clear correlation. The coefficient of determination ( $R^2 = 0.669$ ) also shows that 66.9% of the change in financial performance can be explained by these variables combined, a good percentage that reflects the model's ability to explain.

#### **Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>	<b>Change Statistics</b>				
					<b>R Square Change</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Change</b>
<b>1</b>	<b>.818<sup>a</sup></b>	<b>0.669</b>	<b>0.503</b>	<b>0.493692</b>	<b>0.669</b>	<b>4.040</b>	<b>3</b>	<b>6</b>	<b>0.069</b>

#### **a. Predictors: (Constant), ISX, Stock price, trading volume**

As for the ANOVA test table, it showed that the model was generally not statistically significant at the 5% level, as the value reached (Sig. = 0.069).

#### **ANOVA<sup>a</sup>**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
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1	Regression	2.954	3	0.985	4.040	.069 <sup>b</sup>
	Residual	1.462	6	0.244		
	Total	4.416	9			

a. Dependent Variable: Z SCORE

b. Predictors: (Constant), ISX, Stock price, trading volume

When analyzing the regression coefficients for each market variable separately, it was found that the trading volume index was the only variable with a statistically significant effect (Sig. = 0.026). In contrast, the effects of both stock price and the general market index were not statistically significant, although both showed a positive effect on financial performance.

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-1.483	1.099		-1.349	0.226		
Stock price	2.428	1.637	0.699	1.483	0.189	0.248	4.029
Trading volume	0.000	0.000	-1.142	-2.952	0.026	0.369	2.713
ISX	0.000	0.000	0.509	1.550	0.172	0.512	1.953

a. Dependent Variable Z SCORE

Based on the above, we accept the null hypothesis that there is no statistically significant relationship between market indicators and the financial performance of Ashur Bank by 66.66%, due to the lack of a relationship between the stock price and the general market index on the financial performance of Ashur Bank, while there was a relationship between the trading volume index and the financial performance of the bank itself.

## 2. Bank of Baghdad

After conducting a linear regression analysis to determine the impact of market variables—share price, trading volume, and the Iraq Stock Exchange (ISX) index—on the financial performance of the study bank (Bank of Baghdad), the results showed that the correlation coefficient between financial performance and the independent variables was average ( $R = 0.545$ ), indicating a moderate correlation between the variables. As for the coefficient of determination ( $R^2 = 0.297$ ), it shows that only 29.7% of the variation in financial performance can be explained by these variables combined. This low percentage reflects the model's weak explanatory power.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.545 <sup>a</sup>	0.297	-0.055	0.720794	0.297	0.844	3	6	0.518

a. Predictors: (Constant), ISX, Stock price, trading volume

The ANOVA test table showed that the model as a whole was not statistically significant at the 5% level, as it reached (Sig. = 0.518), which means that the independent variables combined do not explain a significant change in the bank's financial performance.

**ANOVA<sup>a</sup>**



Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1.316	3	0.439	0.844	.518 <sup>b</sup>
Residual	3.117	6	0.520		
Total	4.433	9			

a. Dependent Variable: z score

b. Predictors: (Constant), ISX, Stock price, trading volume

When analyzing the regression coefficients for each variable separately, it was found that trading volume was the only variable that showed a relatively positive effect ( $B = 0.000011$ ), but this effect was not statistically significant ( $\text{Sig.} = 0.373$ ). The stock price had a weak negative effect ( $B = -0.418$ ) and was also insignificant ( $\text{Sig.} = 0.582$ ). The general index showed a weak positive effect ( $B = 0.00006$ ), but it was also insignificant ( $\text{Sig.} = 0.584$ ).

#### Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-0.482	0.776		-0.622	0.557		
Stock price	-0.418	0.719	-0.565	-0.581	0.582	0.124	8.062
Trading volume	1.085E-05	0.000	0.943	0.963	0.373	0.122	8.185
ISX	5.992E-05	0.000	0.204	0.579	0.584	0.943	1.060

a. Dependent Variable: z score

Based on the above, we accept the null hypothesis that there is no statistically significant relationship between market indicators and the financial performance of the Bank of Baghdad.

### 3. Gulf Bank

After conducting a linear regression analysis to determine the impact of market variables—share price, trading volume, and the Iraq Stock Exchange (ISX) index—on the financial performance of the bank sampled in the study (Gulf Bank), the results showed that the correlation coefficient between financial performance and the independent variables was moderate ( $R = 0.888$ ), indicating a very strong correlation between the independent variables and the bank's financial performance. Furthermore, the coefficient indicates that 78.9% of the variation in financial performance can be explained by these variables, a high percentage that reflects the strength of the model.

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888 <sup>a</sup>	0.789	0.684	0.391618

a. Predictors: (Constant), ISX, Stock price, trading volume

The ANOVA test table showed that the model as a whole was statistically significant at the 5% level, with  $F = 7.482$  and  $\text{Sig.} = 0.019$ , indicating that the independent variables combined explain a significant change in Gulf Bank's financial performance during the period under study.

#### ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3.442	3	1.147	7.482	.019 <sup>b</sup>
Residual	0.920	6	0.153		
Total	4.362	9			

a. Dependent Variable: z score

b. Predictors: (Constant), ISX, Stock price, trading volume

When analyzing the regression coefficients for each variable separately, it was found that stock price had a strong negative effect ( $B = -3.966$ ) and was close to statistical significance ( $\text{Sig.} = 0.058$ ), indicating the possibility of an inverse relationship between stock price appreciation and financial performance, although the relationship did not reach full significance. Trading volume had a positive effect ( $B = 0.00009$ ) but was not significant ( $\text{Sig.} = 0.420$ ), as did the general index, which also showed a weak and insignificant effect ( $\text{Sig.} = 0.883$ ).

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.952	0.551		1.729	0.135
Stock price	-3.966	1.694	-1.408	-2.341	0.058
Trading volume	9.186E-06	0.000	0.602	0.866	0.420
ISX	1.261E-05	0.000	0.043	0.154	0.883

a. Dependent Variable: z score

Based on the above, we accept the null hypothesis that there is no statistically significant relationship between market indicators and the financial performance of Gulf Bank.

#### 4. Middle East Bank

After conducting a linear regression analysis to determine the impact of market variables—share price, trading volume, and the Iraq Stock Exchange (ISX) index—on the financial performance of the bank sampled in the study (Middle East Bank), the results showed that the correlation coefficient between financial performance and the independent variables ( $R = 0.889$ ), indicating a very strong correlation between the independent variables and financial performance. The coefficient of determination ( $R^2$ ) also reached 0.790, meaning that 79.0% of the variation in financial performance can be explained by these variables. This is a high percentage, reflecting the effectiveness of the model.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.889 <sup>a</sup>	0.790	0.685	0.394085	0.790	7.522	3	6	0.019

a. Predictors: (Constant), ISX, Stock price, trading volume

In the ANOVA test table, the F value was 7.522, while the statistical significance value ( $\text{Sig.}$ ) was 0.019, which is less than 0.05, indicating that the model as a whole is statistically significant. This means that the market variables combined explain a significant change in the bank's financial performance during the study period.

ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3.505	3	1.168	7.522	.019 <sup>b</sup>
Residual	0.932	6	0.155		
Total	4.436	9			

a. Dependent Variable: z score

b. Predictors: (Constant), ISX, Stock price, trading volume

At the individual variable level, "stock price" showed a clear negative effect ( $B = -2.663$ ) and was close to statistical significance ( $\text{Sig.} = 0.080$ ), indicating the possibility of an inverse relationship between rising stock prices and declining financial performance. On the other hand, trading volume and the general index were not statistically significant at the 5% significance level.

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	0.654	0.475		1.377	0.218		
Stock price	-2.663	1.268	-0.708	-2.100	0.080	0.308	3.249
Trading volume	1.282E-05	0.000	-0.178	-0.525	0.618	0.304	3.295
ISX	2.811E-05	0.000	0.096	0.496	0.637	0.942	1.062

a. Dependent Variable: z score

Based on the above, we accept the null hypothesis that there is no statistically significant relationship between market indicators and the financial performance of the Middle East Bank by 66.66%, due to the lack of a relationship between trading volume and the general market index on the financial performance of Ashur Bank, while there was a relationship between the stock price index and the financial performance of the bank itself.

#### 4. CONCLUSIONS AND RECOMMENDATIONS

##### 4.1 Conclusions

1. The financial data shows that the financial performance index of the banks in the study sample has shown significant improvement in these values, which is a good indicator that can be relied upon.
2. There was irregularity or instability in the value of the general market index during the study period, as well as a lack of a consistent trend, whether downward or upward.
3. There is clear fluctuation in the market indicators of the banks, with declines and increases in these values, some of which can be justified by the security and political conditions in the country, while others have no logical justification.
4. Ashur Bank and Middle East Bank: There was a relationship between some market indicators (trading volume, share price) and the financial performance of both banks.
5. Statistical analysis revealed a moderate to strong correlation when considering the model as a whole. However, when examining the indicators individually, it was found that most of the variables were not strongly related to financial performance at a 5% significance level. Therefore, it can be said, in general, that there is no statistical relationship between the study variables.



#### **4.2 Recommendations**

1. Work to strengthen the regulatory and supervisory frameworks of the Iraq Stock Exchange, including modern laws that are consistent with developments in financial markets, to reduce unjustified fluctuations and build investor confidence.
2. Diversify investment instruments, which in turn increases the depth of the financial market, attracting a wider segment of investors, better distributing risks, and reducing volatility across various sectors.
3. Develop new mechanisms to reduce volatility, such as adopting a trading suspension mechanism to maintain price stability and protect the market from sudden shocks.
4. Work to increase financial disclosure and transparency by the banks in the study sample, presenting data and achievements on a regular and clear basis, thus impacting the positive impact of this data and information on stock prices and trading volume more efficiently.
5. Increasing the efficiency of the Iraq Stock Exchange by focusing on the trading infrastructure, including advanced electronic trading and disclosure systems, and improving the operating environment for financial brokerage firms and financial analysis. This, in turn, impacts the flow of information and makes prices more reflective of the actual performance of banks and companies listed on the market.
6. Educating investors about the importance of companies' basic financial indicators (such as profitability, return on equity, and others) in assessing stock value. This is to reduce reliance on speculation or unreliable information and ensure that investment decisions are based on companies' actual financial performance.
7. Conducting investor awareness programs on the importance of basic financial indicators that must be considered when evaluating stocks (such as profitability, return on equity, and other basic indicators) is to reduce investors' reliance on speculation and inaccurate information and ensure that investment is based on banks' actual financial performance.
8. The study also recommends using longer time periods in future research, which will provide a greater understanding of the surrounding circumstances, such as distinguishing between periods of political and security stability and turbulent periods, which affect the relationship between market indicators and banks' financial performance.

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