TESTING THE EFFECT OF SYSTEMIC RISK IN FINANCIAL PERFORMANCE DURING COVID-19 PANDEMIC (ANALYTICAL RESEARCH FOR A SAMPLE OF IRAQI COMPANIES FOR THE PERIOD 2019-2020)

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ABSTRACT

The main objective of the current research is to test the effect of systemic risk in the financial performance of a sample of Iraqi companies for the period from 2019 to 2020. The research data was obtained through the Iraq Stock Exchange website and the official websites of the research sample companies. Systematic risk were measured through one indicator (beta indicator), as well as financial performance was measured through its indicators (return on assets, return on equity, return on market value and return on sales), and this was done by using some financial equations and statistical methods, which were analyzed using the program (SPSS v.22). The results of the research showed that there is an adverse effect of systemic risk in the financial performance of the Iraqi companies, the research sample, during the COVID-19 pandemic.

Keywords: Systemic Risk, Financial Performance, COVID-19 Pandemic and Iraqi Companies.

INTRODUCTION

A company is an organization that primarily carries out economic activities that are carried out on an ongoing basis and have a specific purpose. The main objective or purpose of the company is to reduce systemic risks and increase the company's shares of good financial performance with the prosperity of owners or shareholders. In order to develop economic circumstances in the world, the state of economic actors will always have ups and downs and will not always go well. When any crisis begins to emerge, many companies will be involved in financial distress, because of deteriorating economic and financial situations and lead to increased risk of bankruptcy (Nugroho et al., 2021: 1717).

To conclude, the COVID-19 pandemic has disrupted every aspect of life globally. Business and commerce are among the main areas that have entered into a severe monetary crisis. Consequently, this pandemic has resulted in significant difficulties for business environments worldwide. Closures of companies or their subsidiaries, bans, and reduced mobility have created many obstacles within the supply chain and threatened the continuity of all corporate activities, on a wide range of types of entities, from large companies listed on global formal markets, to small and medium-sized companies (Achim et al., 2021: 2).

As a result of the foregoing, the researcher will try, through the current research, to test the effect of systemic risk in the financial performance of a selected sample of Iraqi companies during Corona pandemic (Covid-19).

LITERATURE REVIEW

Systemic Risk

The concept of systemic risk

Systemic risk, also called market risk, is viewed as the non-diversifiable risk that affects the market as a whole, and this type of risk is unpredictable and impossible to completely avoid by companies. The source of systemic risk can be macro-scale factors such as inflation, fluctuations in exchange rates, changes in interest rates, and economic recession. As a result of the above, these risks are risks that affect the entire market and that no single company can control (Çakmak & Gozen, 2021: 59).

In addition to the above, Harahap (2021: 64) clarifies that systemic risk, which can also be referred to as market risk, and some call them general risk, is risk associated with changes that occur in the market as a whole, which can then affect the volatility of investment returns.

As for Shankar et al. (2021: 482), defines systemic risk as the risk of significant effects at the level of the economy, such as increases in interest rates, wars, epidemics, etc., which affect the entire system and not just the shares of a single company.

Measurement indicator of systemic risk

For the purpose of measuring the systemic risk of the Iraqi companies, the sample of the research, and after searching the literature in this field, one indicator was found by which systemic risks can be measured, which is the beta coefficient. Beta is a tool for measuring systemic risk, because it is affected by macroeconomic events such as the sensitivity of stock returns to fluctuations in portfolio returns. At the same time, beta is a tool for measuring the rate of movement of current stock returns in stock markets (Rofiqoh & Mukaffi, 2021: 27). The beta indicator for measuring systemic risk will be represented by the following equation:

Systemic Risk (SR) = Squared Beta × Variance Rate of Return for a Stock Market Portfolio

Financial Performance

The concept of financial performance

Scientists and researchers have tried and are still trying to find a universal definition of financial performance. Previous studies have seen the definition of financial performance in several ways, from a neutral definition to an extreme definition. So far, there is no definitive definition of financial performance. There have been many attempts to define financial performance but most of them seem to fit only a particular topic of research or use. Some researchers such as Burca & Batrinca (2014) have argued that despite the different models that can be used to analyze financial performance; there is no consensus on a valid definition and quantification of this concept. In addition, scholars believe that no single target variable can be found to define financial performance (Jadi, 2015: 38).

As a result of what was mentioned in the above, (Sidney, 2020: 8) indicated that financial performance refers to the degree to which the organization achieves its financial goals and objectives. It basically means estimating the strategies and activities of the organization in terms of money. It is also referred to as the proportion of overall budgeted well-being of an organization, which can be compared with another organization with comparable attributes. This type of performance is also measured in terms of solvency, profitability, liquidity, financial efficiency, and how quickly the organization pays its obligations.

On the other hand, Razak et al. (2021: 4) defines financial performance as the efficiency and effectiveness of the organization in doing business, creating wealth, acquiring and transferring resources within the organization to achieve its goals.

Measurement indicators of financial performance

Financial performance indicators, also known as Key Performance Indicators (KPIs), are quantifiable measures, which are used to identify, track and predict the economic well-being of businesses. Its serve as tools for both company insiders (such as management and board members) and outsiders (such as research analysts and investors) to analyze how well the company is performing – especially in relation to competitors – and to identify strengths and weaknesses (Onder & Altintas, 2017: 109).

After reviewing the literature on financial performance indicators and how to measure it quantitatively, it became clear that most of the research and studies in this field depend in measurement on four indicators, which will be adopted in the current research for the purpose of measuring the financial performance of Iraqi companies, the study sample, which are as follows:

Return on Assets (ROA): is the indicator that measures the company's ability to achieve profits or net profits from its assets, by calculating the distribution of net income through total assets. This indicator is referred to as a ratio that shows the impact of the size of assets on achieving profits (net income). When the rate of return on assets increases, the amount of profit from each monetary unit included in the total assets increases. Conversely, when the rate of return on assets decreases, the amount of profit from each monetary unit in total assets decreases (Nuraini, 2021: 259). The equation for the return on assets indicator can be represented as follows:

Return on Assets (ROA) = Net Income ÷ Total Assets

Return on Equity (ROE): The return on equity is also known as the return on shareholders. This ratio studies the extent to which the company uses its resources to be able to provide a return on equity. Return on equity can be used to determine the management's success in managing the company's capital in providing returns to shareholders. When this ratio rises, it is better because it provides a greater rate of return for shareholders (Akbar, 2021: 12). Return on equity can be measured using the following equation:

Return on Equity (ROE) = Net Income ÷ Equity

Return on Market Value (RMV): It is the return on the market value of shares, which is actually the return on profit on the company's share price. This measurement is used to determine the company's performance and value. Analysts, financial experts, and investors use it as a strategy to determine the return on profit from a company's market value. When this return is rises, the company's financial performance is better (Kadu & Oluoch, 2018: 24). The formula for the return on market value indicator can be represented as below:

Return on Market Value (RMV) = Net Profit Per Share ÷ Closing Price Per Share

Return on Sales (ROS): A broad measure of how well operations within a company are running. It measures how well fixed and variable costs are managed, as well as the total profit from sales. When the return on sales increases, the company's financial performance is better (Vähäkuopus, 2021: 20). The equation for the return on sales indicator can be represented by the following:

Return on Sales (ROS) = Net Income ÷ Total Sales

RESEARCH METHODOLOGY

Research Objectives

The current research seeks to answer the following two questions:

1. Is there an effect of systemic risk in the financial performance of the Iraqi companies, the study sample?
2. What is the amount of effect of systemic risk in the financial performance of the Iraqi companies, the study sample?

Research Hypothesis

In order to develop an accurate answer to the research questions mentioned, the research hypothesis was formulated as follows:

"There is a statistically significant effect of systemic risk in financial performance".

Research Sample

The current research sample was represented in (10) companies listed on the Iraq Stock Exchange for the period from 2019 to 2020. The financial data was obtained through the official website of the Iraq Stock Exchange, which issues a comprehensive report on the activity of banks and companies during the fiscal year, and also through The Securities Commission website, and a sample of (10) companies was selected. The reason for this is that not all companies have the financial statements for the mentioned period, due to the instability of the current economic and political situation in the country. Therefore, the data of (10) companies was relied upon, which means that there are no missing data.

FINANCIAL AND STATISTICAL ANALYSIS

Financial Analysis

Financial analysis of systemic risk indicator

Table 1 shows that the public sector rate of the systemic risk indicator was (0.10) and that was in 2019, but it increased to (0.34) in the following year, which is the year 2020, when the Covid-19 pandemic was spreading globally and killing many people and companies and business. As for the research sample companies, Al-Kindi Company for the production of vaccines and veterinary medicines achieved the lowest rate of the systemic risk indicator at a rate of (0.01). While the Baghdad Company for Soft Drinks achieved the highest rate for the same indicator, which amounted to (0.92), which means that Al-Kindi Company for the production of vaccines and veterinary medicines is the best because it is less affected by systemic risks. As for the remaining companies, its rates were as follows: Al-Iraqiya for carpets and furnishings at a rate of (0.03), Al-Iraqiya for manufacturing and marketing dates at a rate of (0.06), Al-Wataniya Chemical and Plastic Industries at a rate of (0.08), Production of Ready-made Clothes and General Trade at a rate of (0.12), Al-Mansour for pharmaceutical industries and Al-Wataniya for Metallurgical Industries and bicycles at a rate of (0.21), Baghdad for packaging materials industry at a rate of (0.27), and Modern Sewing at a rate of (0.28).

Table 1
THE RESULTS OF THE FINANCIAL ANALYSIS OF THE SYSTEMIC RISK INDICATOR FOR THE STUDY SAMPLE COMPANIES FOR THE PERIOD (2019-2020)

Companies	Symbol	2019	2020	Average
Al-Mansour for pharmaceutical industries	IMAP	0.35	0.07	0.21
Modern Sewing	IMOS	0.00	0.56	0.28
Al-Iraqiya for carpets and furnishings	IITC	0.06	0.01	0.03
Baghdad for packaging materials industry	IBPM	0.05	0.49	0.27
Baghdad Company for Soft Drinks	IBSD	0.29	1.54	0.92
Al-Iraqiya for manufacturing and marketing dates	IIDP	0.10	0.01	0.06
Al-Wataniya Chemical and Plastic Industries	INCP	0.01	0.14	0.08
Al-Kindi for the production of vaccines and veterinary medicines	IKLV	0.00	0.01	0.01
Al-Wataniya for Metallurgical Industries and bicycles	IMIB	0.05	0.38	0.21
Production of Ready-made Clothes and General Trade	IRMC	0.05	0.18	0.12
Average		0.10	0.34	

Source: Prepared by the researcher based on computer output

Financial analysis of the return on assets indicator

Table 2 shows that the public sector rate of return on assets indicator was (0.09) in 2019, but it increased to (0.10) in the following year, 2020. As for the research sample companies, Al-Wataniya for Metallurgical Industries and bicycles achieved the highest rate of return on assets indicator at a rate of (0.24). While Al-Iraqiya for Manufacturing and Marketing of Dates achieved the lowest rate for the same indicator, reaching (0.00), and this means that Al-Wataniya for Metallurgical Industries and bicycles is the best because it achieved a higher return. As for the remaining companies, its rates were as follows: Al-Iraqiya for carpets and furnishings at a rate of (0.18), Modern Sewing and Baghdad for soft drinks at a rate of (0.13), Al-Wataniya Chemical and Plastic Industries at a rate of (0.10), Al-Mansour for Pharmaceutical Industries and Al-Kindi for the production of vaccines and veterinary medicines at a rate of (0.06), Production of Ready-made Clothes and General Trade with a rate of (0.04), and Baghdad for packaging materials industry at a rate of (0.01).

Table 2
THE RESULTS OF THE FINANCIAL ANALYSIS OF THE RETURN ON ASSETS INDICATOR FOR THE STUDY SAMPLE COMPANIES FOR THE PERIOD (2019-2020)

Companies	Symbol	2019	2020	Average
Al-Mansour for pharmaceutical industries	IMAP	0.04	0.07	0.06
Modern Sewing	IMOS	0.14	0.12	0.13
Al-Iraqiya for carpets and furnishings	IITC	0.17	0.18	0.18
Baghdad for packaging materials industry	IBPM	0.02	0.01	0.01
Baghdad Company for Soft Drinks	IBSD	0.13	0.13	0.13
Al-Iraqiya for manufacturing and marketing dates	IIDP	0.00	0.00	0.00
Al-Wataniya Chemical and Plastic Industries	INCP	0.07	0.13	0.10
Al-Kindi for the production of vaccines and veterinary medicines	IKLV	0.01	0.11	0.06
Al-Wataniya for Metallurgical Industries and bicycles	IMIB	0.24	0.25	0.24
Production of Ready-made Clothes and General Trade	IRMC	0.05	0.02	0.04
Average		0.09	0.10	

Source: Prepared by the researcher based on computer output

Financial analysis of the return on equity indicator

Table 3 shows that the public sector rate of return on equity indicator was (0.09) in 2019, but it increased to (0.11) in the following year, 2020. As for the research sample

companies, Al-Iraqiya for carpets and furnishings achieved has the highest rate of return on equity at a rate of (0.26). While Al-Iraqiya for manufacturing and marketing dates achieved the lowest rate for the same indicator, reaching (0.00), which means that Al-Iraqiya for carpets and furnishings is the best because it achieved a higher return. As for the remaining companies, its rates were as follows: Al-Wataniya Chemical and Plastic Industries at a rate of (0.17), Modern Sewing at a rate of (0.16), Baghdad for soft drinks at a rate of (0.14), Production of Ready-made Clothes and General Trade at a rate of (0.08), Al-Mansour for pharmaceutical industries and Al-Kindi for the production of vaccines and veterinary medicines and Al-Wataniya for Metallurgical Industries and bicycles at a rate of (0.06), and Baghdad for packaging materials industry at a rate of (0.01).

Table 3
THE RESULTS OF THE FINANCIAL ANALYSIS OF THE RETURN ON EQUITY INDICATOR OF THE STUDY SAMPLE COMPANIES FOR THE PERIOD (2019-2020)

Companies	Symbol	2019	2020	Average
Al-Mansour for pharmaceutical industries	IMAP	0.05	0.07	0.06
Modern Sewing	IMOS	0.18	0.15	0.16
Al-Iraqiya for carpets and furnishings	IITC	0.25	0.28	0.26
Baghdad for packaging materials industry	IBPM	0.02	0.01	0.01
Baghdad Company for Soft Drinks	IBSD	0.14	0.14	0.14
Al-Iraqiya for manufacturing and marketing dates	IIDP	0.00	0.00	0.00
Al-Wataniya Chemical and Plastic Industries	INCP	0.12	0.22	0.17
Al-Kindi for the production of vaccines and veterinary medicines	IKLV	0.01	0.12	0.06
Al-Wataniya for Metallurgical Industries and bicycles	IMIB	0.06	0.06	0.06
Production of Ready-made Clothes and General Trade	IRMC	0.08	0.09	0.08
Average		0.09	0.11	

Source: Prepared by the researcher based on computer output.

Financial analysis of the return on market value indicator

Table 4 shows that the public sector average return on market value indicator was (0.04) in 2019, but it increased to (0.05) in the following year, 2020. As for the research sample companies, Al-Iraqiya for carpets and furnishings achieved has the highest rate of return on the market value indicator at a rate of (0.14). While Al-Iraqiya for manufacturing and marketing dates achieved the lowest rate for the same indicator, reaching (0.00), and this means that Al-Iraqiya for carpets and furnishings is the best because it achieved a higher return. As for the remaining companies, its rates were as follows: Baghdad for soft drinks at a rate of (0.09), Modern Sewing and Al-Kindi for the production of vaccines and veterinary medicines at a rate of (0.06), Al-Mansour for pharmaceutical industries and Al-Wataniya for Metallurgical Industries and bicycles at a rate of (0.04), and for Al-Wataniya Chemical and Plastic Industries with a rate of (0.02), Baghdad for packaging materials industry and Production of Ready-made Clothes and General Trade at a rate of (0.01).

Table 4
THE RESULTS OF THE FINANCIAL ANALYSIS OF THE RETURN ON MARKET VALUE INDICATOR FOR THE STUDY SAMPLE COMPANIES FOR THE PERIOD (2019-2020)

Companies	Symbol	2019	2020	Average
Al-Mansour for pharmaceutical industries	IMAP	0.05	0.04	0.04
Modern Sewing	IMOS	0.06	0.06	0.06
Al-Iraqiya for carpets and furnishings	IITC	0.14	0.15	0.14
Baghdad for packaging materials industry	IBPM	0.01	0.00	0.01
Baghdad Company for Soft Drinks	IBSD	0.09	0.08	0.09
Al-Iraqiya for manufacturing and marketing dates	IIDP	0.00	0.00	0.00

Al-Wataniya Chemical and Plastic Industries	INCP	0.02	0.03	0.02
Al-Kindi for the production of vaccines and veterinary medicines	IKLV	0.01	0.10	0.06
Al-Wataniya for Metallurgical Industries and bicycles	IMIB	0.04	0.04	0.04
Production of Ready-made Clothes and General Trade	IRMC	0.01	0.01	0.01
Average		0.04	0.05	

Source: Prepared by the researcher based on computer output.

Financial analysis of the return on sales indicator

Table 5 shows that the public sector average return on sales indicator was (0.28) in 2019, but it increased to (0.33) in the following year, 2020. As for the research sample companies, Al-Iraqiya for carpets and furnishings has achieved the highest rate of return on sales indicator was (0.70), while the company for Production of Ready-made Clothes and General Trade achieved the lowest rate for the same indicator, which amounted to (0.02). This means that Al-Iraqiya for carpets and furnishings is the best because it achieved a higher return. As for the remaining companies, its rates were as follows: Al-Wataniya for Metallurgical Industries and bicycles at a rate of (0.60), Al-Mansour for Pharmaceutical Industries at a rate of (0.55), Modern Sewing at a rate of (0.46), Al-Kindi for the production of vaccines and veterinary medicines at a rate of (0.26), and Al-Wataniya for Chemical and Plastic Industries at a rate of (0.20), Baghdad for soft drinks at a rate of (0.14), Baghdad for packaging materials industry (0.10), and Al-Iraqiya for manufacturing and marketing dates at a rate of (0.03).

Table 5
THE RESULTS OF THE FINANCIAL ANALYSIS OF THE RETURN ON SALES INDICATOR FOR THE STUDY SAMPLE COMPANIES FOR THE PERIOD (2019-2020)

Companies	Symbol	2019	2020	Average
Al-Mansour for pharmaceutical industries	IMAP	0.64	0.46	0.55
Modern Sewing	IMOS	0.48	0.45	0.46
Al-Iraqiya for carpets and furnishings	IITC	0.57	0.82	0.70
Baghdad for packaging materials industry	IBPM	0.15	0.06	0.10
Baghdad Company for Soft Drinks	IBSD	0.14	0.15	0.14
Al-Iraqiya for manufacturing and marketing dates	IIDP	0.03	0.03	0.03
Al-Wataniya Chemical and Plastic Industries	INCP	0.14	0.27	0.20
Al-Kindi for the production of vaccines and veterinary medicines	IKLV	0.07	0.44	0.26
Al-Wataniya for Metallurgical Industries and bicycles	IMIB	0.57	0.63	0.60
Production of Ready-made Clothes and General Trade	IRMC	0.02	0.01	0.02
Average		0.28	0.33	

Source: Prepared by the researcher based on computer output.

Statistical Analysis

The current research started with the hypothesis that (there is a statistically significant effect of systemic risk in financial performance), and the testing of this hypothesis appears through the results contained in Table 6 below. It is clear from Table 6 that there is an adverse effect of systemic risk in financial performance by (-.020), which is not significant, as the level of significance reached (.957), which is greater than the level of significance assumed by the researcher (0.05). Which means that systemic risk did not affect the financial performance of the Iraqi companies, the study sample, during the Covid-19 pandemic. According to the calculated (F) value of (.003), which is smaller than its tabular value (3.80), this hypothesis is rejected at the research level.

Table 6
THE RESULTS OF TESTING THE EFFECT OF SYSTEMIC RISK IN THE FINANCIAL PERFORMANCE OF THE STUDY SAMPLE COMPANIES FOR THE PERIOD (2019-2020)

Dep. variable	Financial performance				
Ind. variable	β	**T. Value**	R^2	**F. Value**	**Sig.**
Systemic risk	-.020-	-.055-	.000	.003	.957

Source: Prepared by the researcher based on computer output

CONCLUSION

The current research sought to test the effect of systemic risk in financial performance during the Covid-19 pandemic. By selecting a sample of Iraqi companies, amounting to (10) listed on the Iraqi Stock Exchange for the period from 2019 to 2020. Moreover, through the results of the research, especially the results of statistical analysis, the research concluded that systemic risk have an adverse effect in financial performance, by testing the main hypothesis of this research. Based on the results that have been reached, it is clear that there are some other risks that can play a major role in the financial performance of Iraqi companies, the sample of the study that must be researched and knowing how did it affect.

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