The role of BANKOMETER indicators in evaluating the financial performance of IRAGI banks for the period (2010-2021)

Researcher Sajjad Jawad Kadhim AL-bazoni **Prof.Dr. Naeem Sabah Jarrah**

College of Administration and Economics / Department of Finance and Banking

University of Basra

Abstract :

This research aims to measure the role of the Bankometer model indicators in evaluating the financial performance of some Iraqi banks using the Bankometer model. through the annual reports for a period of (12 years), where the six indicators included in the score formula of the Bankometer model were used to measure future financial performance, and the evolution of the study variables and descriptive statistics related to those variables were analyzed and the financial safety formula s score of the Bankometer model was applied, and accordingly it was concluded to the following results. The analysis results revealed a disparity in achieving the required financial performance among the banks in the research sample. By applying the S-SCORE equation, the research demonstrated the effectiveness of the BANKOMETER evaluation model in accurately depicting the future financial situation of the banks in the sample. The study drew several conclusions, one of which emphasized the need for a supportive model to facilitate control operations on banks conducted by the monetary authority. Furthermore, the research confirmed the accuracy of the BANKOMETER evaluation model in assessing the financial performance of the study sample banks, with the exception of financial crises. Based on these findings, the research put forward various recommendations, including the suggestion for the Central Bank of Iraq to adopt the BANKOMETER model for two primary purposes: evaluating current and future financial performance to ensure a secure banking sector.

Key words: **BANKOMETER Model, Financial performance**

دور مؤشرات BANKOMETER في تقييم الاداء المالي للمصارف العراقية للمدة (2010-2021)[1]

الباحث: سجاد كاظم البزوني الاستاذ الدكتورنعيم صباح جراح

كلية الادارة والاقتصاد / قسم العلوم المالية والمصرفية

جامعة البصرة

المستخلص :

تهدف هذه الدراسة إلى قياس دور مؤشرات نموذج Bankometer في تقييم الأداء المالي لمجموعة من المصارف العراقية المدرجة في سوق العراق للأوراق المالية. تمت دراسة ستة مؤشرات تشكل جزءًا من نموذج Bankometer لتقييم الأداء المالي للمصارف. تم تحليل تطور هذه المؤشرات على مدى 12 سنة واستخدام الإحصاءات الوصفية المتعلقة بهذه المؤشرات. تم تطبيق صيغة السلامة المالية s-score الخاصة بنموذج Bankometer واستخدامها لتقييم الأداء المالي للمصارف. أظهرت نتائج التحليل اختلافًا في تحقيق الأداء المالي المطلوب بين المصارف المدروسة. بناءً على تطبيق معادلةs-score ، أظهرت الدراسة فعالية نموذج Bankometer في تصوير الوضع المالي المستقبلي للمصارف المدروسة بدقة. وقد أوضحت الدراسة عدة توصيات، بما في ذلك الحاجة إلى وجود نموذج يدعم عمليات الرقابة المصرفية التي تقوم بها السلطة النقدية. بالإضافة إلى ذلك، أكدت الدراسة دقة نموذج Bankometer في تقييم الأداء المالي للمصارف المدروسة، باستثناء فترات الأزمات المالية. استنادًا إلى هذه النتائج، قدمت الدراسة العديد من التوصيات، بما في ذلك اقتراح تبني البنك المركزي العراقي لنموذج Bankometer لتقييم الأداء المالي الحالي والمستقبلي للمصارف.

الكلمات المفتاحية: تقييم الاداء المالي، نموذج Bankometer.

.

[1] بحث مستل من رسالة الماجستير الموسومة " تقييم الاداء المالي للمصارف العراقية باستخدام نموذج Bankometer دراسة لعينة من المصارف المدرجة في سوق العراق للاوراق المالية للمدة 2010-2021

1.1 Introduction

Banking systems play a vital role in any economy, serving as the main engine of economic growth. They provide necessary financing for individuals and companies to establish and expand businesses, enhance trade and industry, and improve living standards. When the banking system is strong and stable, it facilitates attracting foreign and domestic investments, thereby fostering economic growth and enhancing the financial sustainability of the country. Conversely, an unstable or troubled banking system can lead to economic downturn and have a negative impact on the economy.

Therefore, it is important to maintain the stability of the banking system and ensure its continuous development and improvement in order to promote the economy and preserve its sustainability. Local and international monetary authorities, international rating agencies, and organizations like the Organization for Economic Cooperation and Development (OECD) recognize the importance of implementing effective regulatory systems to monitor the performance of banks. These efforts aim to enhance transparency, improve accountability in the banking sector, and strengthen overall financial stability.

A variety of models are used to assess the financial performance of banks worldwide. For example, the United States employs the "CAMELS" model, while Italy utilizes the "PATROL" model. These models evaluate financial performance based on different rating criteria. Prominent organizations such as the International Monetary Fund (IMF) and international rating agencies continually strive to develop comprehensive financial performance assessment tools like the Bankometer model. Such models incorporate various indicators and variables to determine the impact of different risks faced by the banking system and ascertain different levels of financial performance. These efforts are expected to continue in the future to enhance financial performance and achieve stability in the global banking system.

1.2 The research problem

The Iraqi banking sector utilizes modern models such as CAMELS and PATROL for supervisory control over the performance of banks. These models rely on personal estimates and analysis results that only reflect the current financial situation, without considering the future performance of the banks. In order to enhance the supervision of the financial performance of banks, both currently and in the future, it is worth considering

the use of other control models that rely on comprehensive analysis of bank performance. Among these possible models is the Bankometer model, which is based on a comprehensive analysis of bank performance over the long term. It analyzes various factors that impact the financial performance of the bank and provides a comprehensive analysis of the bank's performance and its ability to achieve profits and growth in the future.

As a result of these dilemmas, the research problem emerges, which can be formulated in the following questions:

1. To what extent is the Bankometer model applicable to the Iraqi banking environment?
2. Is the Bankometer model, endorsed by the International Monetary Fund, an effective model for evaluating financial performance?
3. Can the S-SCORE formula of the Bankometer model be used to predict the future financial position of the research sample banks?

1.3 The importance of the research

The research aims to evaluate the financial performance of Iraqi banks using the Bankometer model. The secondary research objectives are as follows:

1. Assess the effectiveness of the aggregated indicators in the Bankometer model in determining the current financial position of each bank in the research sample.

2. Identify banks in the research sample that exhibit weak financial performance.

3. Examine the capability of the S-SCORE formula in the Bankometer model to predict the future financial positions of each bank in the research sample.

1.4 Research Objectives

The main aim of the study is to assess the financial performance of Iraqi banks by utilizing the Bankometer model. Additionally, the secondary research objectives can be defined as follows:

1. To determine the effectiveness of the Bankometer model's combined indicators in identifying the present financial status of each bank in the research sample.

2. To rank the banks in the research sample based on the outcomes of each indicator from the Bankometer model.

3. To identify the banks within the research sample that exhibit weak financial performance.

4. To assess the capability of the S-SCORE formula in the Bankometer model to predict the future financial positions of each bank in the research sample.

1.5 Research Hypotheses

The research is based on the hypothesis that the Bankometer model can be utilized to assess the present and future financial performance of private Iraqi banks in the research sample.

1.6 Duration of the research

The research period extended (12) years from the year (2010) to the year (2021).Because these banks provided the data needed by the research, in addition to that The selected banks are characterized by continuity, large size, and influence in the market Iraq Securities .

Table 1: Commercial banks listed in the Iraq Stock Exchange, the study sample

Banks	Bank Code	Year Of Establishment
Commercial Bank of Iraq	BCOB	1992
Iraqi Middle East Bank for Investment	BIME	1993
Investment Bank of Iraq	BIBI	1993
United Bank for Investment	BUND	1994
National Bank of Iraq	BNOI	1995
Credit Bank of Iraq	BROI	1998
Gulf Commercial Bank	BGUC	1999

Source: Prepared by the two researchers based on the website http// www.iq-isx.net.

1.7 Sources of research data

1. Theoretical side: The available scientific sources were relied on from books, letters, dissertations, periodicals, and the international information network.
2. 2 The applied side: The annual reports of the Iraq Stock Exchange for the years (2010-2021) were relied upon to obtain data.

THEORETICAL FRAMEWORK

2.1 The emergence and development of the BANKOMETER model

This model was presented by the International Monetary Fund (IMF) in 2000. It contains a set of financial indicators combined in a linear S-SCORE equation extracted from the CAMELS system and the parameters of the LA-stress test with adjustments to percentages. After the BANKOMETER model, a modern system was used to evaluate the financial performance of banks, and this model was applied on a global level (Saddam et al. 2022:68).The main motive behind the creation of the model was the deterioration of some financial systems in the economies of developed countries, and based on the standards of the International Monetary Fund, the model was used for the Banking Controller. private and state-owned companies to predict the possibility of their exposure to financial hardship and measure their financial position and solvency to avoid insolvency, which is very important for banks, equity investors and creditors (Kumar, 2019:35).Many countries have made efforts to improve this model with the aim of developing it as a universal tool for all banks in the world. Assessment of its financial performance(Bolat, 2017:2) The model has been improved to better assess financial performance. Another financial model is that it provides more accurate results using a few indicators (Karadas & Delice, 2022:40). It is interesting that the model became popular after the financial crisis that occurred in 2008, and it began to adapt greatly to the banking environment in the current period (Limbong et al.,2022:97).

2.2 Concepts of BANKOMETER model variables

CA = Capital to Asset Ratio (CA≥04percentage)

EA = Equity to Asset Ratio (EA≥02percentage)

CAR = Capital Adequacy Ratio (40percentage≤CAR≥08percentage)

NPL = Non Performing Loan Ratio (NPL ≤ 15percentage)

CI = Cost to Income Ratio (CI≤40percentage)

LA = Loans to Asset Ratio (LA ≤65percentage)

Source: Bolat,A.(2017).

2.2.1 Capital to Asset Ratio - is the main standard that must be followed by credit organizations and one of the most important indicators of bank performance, as well as its soundness and capacity. In general, it characterizes bank's ability to mitigate possible financial losses using its own capital, while maintaining their customer's funds. Capital to asset ratio defines whether bank possesses sufficient capital to support its assets. A higher ratio suggests that bank employs more internal and external sources of funds to invest in various assets. According to the core principles of IMF, the minimum level of bank's capital ratio must be 4% (BOLAT, 2017:8).

(Capital / Total Assets) *100 ≥ 4%

2.2.2 Equity to Total Assets : Equity to Asset Ratio that measures the amount of assets that are contributed by owners' investments by comparing the total equity in the bank to the total assets. The higher the ratio, the more secure the financial position of the bank and the major part of the assets are financed by equity capital and is less dependent on external funding (Kumar, 2019:36). According to the criteria of the BANKOMETER model, the ratio for banks should be greater or equal to It is calculated by the following equation:

(Equity / total Assets) *100 ≥ 2%

2.2.3 Capital Adequacy Ratio : Capital adequacy is one of the most important tools used in determining the solvency of the bank and its ability to face potential financial risks, so the lower the possibility of financial risk for the bank (Awwad, 145:2023) and the size of the capital is determined based on the risks expected by banks, In other words, adequacy indicates that banks have sufficient capital to cover the expected risks and deal with potential financial difficulties without the need to increase capital or resort to external financing, and the growing concern for capital adequacy in banks has become one of the important issues in our time 536 2021. (Jothr, 2021: 536). According to the standards of the BANKOMETER model, the ratio for banks should be 8% to 40% (Kherbeek, 2020 :11). It is calculated by the following equation :

((Tier1 Capital + Tier2 Capital) / Risk weighted assets) ≥ 8%

2.2.4 **Non Performing Loan Ratio:** is a ratio that measures the volume of debts that debtors were unable to repay on time. Non-performing loans, or which are usually called non-performing loans, are considered a basic financial ratio that is able to provide assessment information on the state of capital,

profitability, and credit risks. Banks used the ratio of non-performing loans to total loans as an indicator of financial performance (Rifansa & Pulungan 2022:15726), as the high ratio indicates an increase in non-performing loans granted by banks, which leads to poor quality of assets. Research and evidence from various countries indicated that the increasing levels of non-performing loans It has a direct impact on the profitability of banks, there is a negative relationship between non-performing loans and performance efficiency (Chimkono, 2016: 80-82). According to the standards of the BANKOMETER model, the percentage for banks must be no less than 15%, and it is calculated through the following equation:

(Non -performing loan / Total Loan) *100 ≤ 15%

2.2.5 Cost to Income Ratio: The cost to income ratio is the ratio that compares operating expenses excluding non-cash expenses and operating income () (Erari et al., 2013: 14) This ratio is measured by dividing operating expenses by operating income (ALmazari 2013: 288). A major percentage that determines the profitability of banks, where the increase of this percentage indicates a decrease in operating income with an increase in operating expenses for banks. This means that banks spend a greater percentage of their operating income on operating expenses, and this indicates that the efficiency of banks in managing their operating expenses is weak, which leads to its financial performance (Khan et al., 2019: 433). According to the criteria of the BANKOMETER model, the ratio at banks must be greater or equal to 40% (Nlmalathasa et al., 2012:13), and it is calculated through the following equation:

(Operating expenses / Operating Income)*100 ≤ 40%

2.2.6 Loans to Asset Ratio : This ratio is used to measure the quality of assets in banks and highlights the ratio of total assets of the balance sheet of banks that are issued as loans that loans carry a higher level of risk compared to other assets (Davis & Obasi, 2019 : 15) and the higher This ratio is indicated by the high credit risk of banks, however, the low ratio of loans to total assets may indicate that the bank is more conservative, which reduces the possibility of making profits (Shakbutova & Shopasheva 2020: 182). According to the criteria of the BANKOMETER model, the percentage for banks must be no less than 65% (Widiastuty 29: 2018), and it is calculated through the following equation:

(Loans / total Assets) *100 ≤ 65%

3.1 INDICATOR ANALYSIS

3.1.1 Capital to Asset Ratio

We note from the Table No (2) that the research sample banks recorded the ratio (CA) higher than the standard model of 4% throughout the period studied, and this indicates that banks enjoy good and safer capital, and general Average of the bank sample reached a percentage The capital to assets during the search years (40.07%) with a standard deviation (10.62%).

Table 2: Capital to Asset Ratio Analysis

Bank / Year	National	Investment	United	Credit	Commercial	Gulf	Middle	general Average
2010	46.48	30.48	28.92	16.8	29.38	20.94	17.23	27.17
2011	54.15	30.51	30.49	22.51	40.41	30.23	22.45	32.96
2012	29.65	26.3	35.39	29.65	34.07	24.47	18.31	28.26
2013	18.43	29.77	39.74	27.65	44.79	38.38	32.29	33.007
2014	24.7	44.75	50.27	40.63	55.64	36.74	36.59	41.33
2015	46.66	45.31	51.61	40.41	60.25	36.99	37.03	45.46
2016	43.13	43.26	56.83	48.69	58.98	37.4	38.06	46.62
2017	41.39	43.57	57.75	52.45	54.26	49.67	32.43	47.36
2018	47.55	41.18	58.18	50.23	56.31	51.87	31.22	48.07
2019	39.5	47.18	49.64	47.84	55.58	54.38	37.98	47.44
2020	27.96	43.74	42.9	47.43	40.55	58.63	38.58	42.82
2021	13.72	35.56	36.26	53.56	48.79	55.71	39.01	40.37
Average	36.11	38.467	44.831	39.82	48.25	41.284	31.765	40.07
MAX	54.15	47.18	58.18	53.56	60.25	58.63	39.01	52.99
MIN	13.72	26.3	28.92	16.8	29.38	20.94	17.23	21.89
SD	12.84	7.42	10.61	12.57	10.26	12.59	8.06	10.62

Source: Prepared by the two researchers based on the financial reports of the banks, the research sample, and the outputs of the Excel .

3.1.2 Equity to Total Assets :

We note from the Table (3) that the results of the EAR ratio analysis (for the search sample was stable and higher than the standard of the evaluation model 2%, with a very big difference, the length of the studied

period, and this is evidence that the bank owns a good financial center, and the percentages recorded by the bank were close It means that the bank worked to raise the level of external financing percentage in a rate that is an approach to an increase in the capital of the property by raising the percentage of money deposited and long -term borrowing, and the value of the general arithmetic average of banks of the research sample of the EAR percentage) during the research years (45.9%) reached a normative deviation (9. 85)%.

Table No 3 : **Equity to Total Assets** Ratio Analysis

Bank / Year	National	Investment	United	Credit	Commercial	Gulf	Middle	general Average
2010	49.19	35.94	35.47	22.7	46.3	23.36	14.49	32.49
2011	57.08	35.73	37.73	34.21	54.63	34.37	20.64	39.19
2012	45.85	31.19	43.92	52.05	48.8	35.09	22.92	39.97
2013	31.07	35.79	44.88	36.33	58.7	38.89	26.19	38.83
2014	42.81	50.79	53.1	47.16	63.29	42.37	44.95	49.21
2015	49.789	50.97	55.34	48.79	66.09	39.65	41.02	50.23
2016	49.64	50.14	61.15	59.76	66.52	39.61	43.74	52.93
2017	47.3	49.34	57.26	66.18	63.28	53.12	33.88	52.9
2018	49.04	46.63	58.91	62.99	63.96	54.37	33.4	52.75
2019	40.55	49.19	50.21	56.86	60.45	55.85	40.6	50.53
2020	34.39	46.41	43.42	55.72	49.92	60.13	40.88	47.26
2021	17.34	37.52	36.96	61.86	61.39	56.51	41.38	44.7
المتوسط	42.73	43.3	48.19	50.38	58.61	44.44	33.67	45.9
MAX	57.08	50.97	61.15	66.18	66.52	60.13	44.95	58.14
MIN	17.34	31.19	35.47	22.7	46.3	23.36	14.49	27.26
SD	10.74	7.39	9.01	13.27	7.01	11.32	10.23	9.85

Source: Prepared by the two researchers based on the financial reports of the banks, the research sample, and the outputs of the Excel .

3.1.3 Capital Adequacy Ratio :

We notice from the Table No (4) that the percentage of the sample of the research sample exceeded the minimum rate in the evaluation form 8%) to (4%of the length of the studied period, and this indicates that the bank has a preventive barrier that prevents the losses that the bank is exposed to, and it was The maximum percentage in the year 2017 (133%) was due to the increase in organizational capital, with the

total number of weighted assets, and the value of the general arithmetic average of the search sample for the percentage of (CAR) during the search years(188.43%) reached a standard deviation (78.44)%.

Table No 4 : Capital Adequacy Ratio Analysis

Source: Prepared by the two researchers based on the financial reports of the banks, the research sample, and the outputs of the Excel .

3.1.4 Non Performing Loan Ratio:

We note through the Table No (5) a decrease in the arithmetic average of the (NPL) rate of the sample Average averages were recorded in a simple way and that this requires studying and analyzing these loans and taking precautionary measures, and the value of the general arithmetic of the banks of the research sample for the rate of (NPL) during the search years (14.1%) reached a standard deviation (11.1%).

Bank / Year	National	Investment	United	Credit	Commercial	Gulf	Middle	general Average
2010	124	49	20	218	577	49.2	33	152.88
2011	196	63	22	250	495.5	60.2	49	162.24
2012	133	64	20.81	315	414	51.5	53	150.18
2013	104.15	63	30.5	314	489.7	78	73.5	164.69
2014	111.51	93	50.53	286	760.4	73.8	109	212.03
2015	116.9	152	29.6	302	536	74.5	104	187.85
2016	103.22	130	33.03	374	728.8	91.4	101	223.06
2017	106.65	139	36	399	594.1	124.6	133	218.9
2018	82. 87	122	36.64	370	657.6	131	110.2	237.9
2019	27. 81	102	45	374	529.2	148.9	111	218.35
2020	30. 91	105.06	52%	266	73.7	121	92	109.71
2021	25. 99	102.55	49.5	264	98.9	158	78	125.15
المتوسط	124.4	98.71	31.17	311	578.23	88.31	87.225	188.43
MAX	196	152	50.53	399	760.4	158	133	264.13
MIN	103.22	49	0.52	218	73.7	49.2	33	75.23
SD	65.97	33.45	16.11	102.37	248.19	45.37	37.66	78.44

Table No 5 : **Non Performing Loan Ratio** Analysis

Bank / Year	National	Investment	United	Credit	Commercial	Gulf	Middle	general Average
2010	16.279	19.53	0.49	9.83	3.44	3.84	10.39	9.11
2011	17.16	14.61	1.59	10.96	1.32	3.33	7.83	8.11
2012	11.07	9.33	0.86	10.7	6.43	4.19	7.5	7.15
2013	7.28	10.58	2.47	31.92	3.83	7.2	7.15	10.06
2014	9.37	14.86	5.78	65.79	2.19	12.71	7.88	16.94
2015	14.29	18.64	14.05	1.82	2.11	11.13	9.87	10.27
2016	23.32	24.73	29.35	28.96	1.3	15.49	13.01	19.45
2017	46.06	21.65	10.01	10	9.83	25.42	14.76	19.67
2018	27.39	14.87	50.37	8.76	16.22	35.75	15.65	24.14
2019	12.76	14.71	6.43	11.23	17.68	20.49	15.74	14.14
2020	10.36	18.2	65.88	9.47	4.58	24.42	17.38	21.47
2021	4.54	6.79	3.52	13.055	0.63	14.49	17.5	8.646
المتوسط	16.66	15.71	15.9	17.71	5.8	14.87	12.06	14.1
MAX	46.06	24.73	65.88	65.79	17.68	35.75	17.5	39.05
MNI	4.54	6.79	0.49	1.82	0.63	3.33	7.15	3.53
SD	11.29	6.6	21.08	17.34	5.78	10.49	5.12	11.1

Source: Prepared by the two researchers based on the financial reports of the banks, the research sample, and the outputs of the Excel .

3.1.5 Cost to Income Ratio:

We note through Table No (6) an average arithmetic for the percentage of (CIR) for the sample This indicates that there is an inverse relationship between the ratio of (CIR) and for the profitability of those banks, while other banks recorded rates that exceed the standard of the evaluation model in a simple way, and that this requires good management by banks, and the value of the general arithmetic of banks of the research sample reached the NPL rate through Search years (201.14%) with a standard deviation (154.77%).

Table No 6 : **Cost to Income Ratio** Analysis

Bank / Year	National	Investment	United	Credit	Commercial	Gulf	Middle	general Average
2010	378	88.2	34.49	116.45	100.78	231.19	223.38	167.49
2011	197.2	97.7	34.8	110.89	87.58	119.84	116.82	109.26
2012	38.07	434.53	62.95	73.15	54.39	57.55	102.54	117.59
2013	85.1	57.543	74.3	121.39	96.44	54.45	127.91	88.16
2014	251.54	57.27	75.64	60.59	73.8	87.96	726.26	190.43
2015	590.64	91.28	87.03	56.42	102.86	177.94	536.6	234.68
2016	61.08	129.54	156.92	152.01	113.91	274.99	254.56	163.28
2017	533.74	342.38	730.61	84.59	115.64	414.78	95.88	331.08
2018	386.39	340.03	189.31	112.12	83.06	173.21	75.41	194.21
2019	314.4	654.43	614.6	197.49	197.12	473.28	92.27	363.37
2020	146.47	188.07	290.43	241.86	42.3	147.22	146.1	171.77
2021	156.75	107.89	738.28	198.52	138.88	278.43	358.2	282.42
المتوسط	261.61	215.74	257.45	127.12	100.56	207.57	237.99	201.14
MAX	590.64	654.43	738.28	241.86	197.12	473.28	726.26	517.41
MIN	38.07	57.27	34.49	56.42	42.3	54.45	75.41	51.2
SD	181.92	187.67	274.89	59.24	40.38	133.93	205.37	154.77

Source: Prepared by the two researchers based on the financial reports of the banks, the research sample, and the outputs of the Excel .

3.1.6 Loans to Asset Ratio :

We note through Table No (7) there is a decrease in the arithmetic average of the percentage of (LAR) banks, as the rates of the evaluation form were recorded, and this shows that banks of the study sample were safer in terms of banking liquidity, and the value of the general account of the sample reached the sample Search for (NPL) during the search years (21.005%) with a normative deviation of (9.16%).

Table No 7: Loans to Asset Ratio Analysis

Bank / Year	National	Investment	United	Credit	Commercial	Gulf	Middle	general Average
2010	33.14	30.79	50.5	2.3	0.17	12.96	24.54	22.05
2011	26.56	30.9	42.69	2.25	0.33	19.52	28.27	21.5
2012	20.01	41.74	54.35	2.19	0.78	39.4	24.09	26.08
2013	21.2	26.87	71.23	0.45	1.18	30.84	26.7	25.49
2014	26.87	17.82	71.96	0.19	1.59	30.06	27.5	25.14
2015	34.35	14.38	55.78	1.07	2.19	34.58	22.2	23.5
2016	21.51	10.35	51.65	0.57	2.33	31.72	17.31	19.34
2017	22.24	11.91	63.35	1.75	2.34	29.11	13	20.52
2018	14.61	16.39	66.14	1.62	2.68	25.079	11.81	19.76
2019	26.7	18.99	41.73	1.54	2.54	22.49	14.28	18.32
2020	35.52	14.22	16.99	1.41	3.056	21.57	13.14	15.12
2021	20.8	36.68	18.01	1.48	5.29	20.81	13.19	16.6
متوسط	25.29	22.58	49.52	1.4	2.13	26.46	19.66	21.005
MAX	35.52	41.74	71.96	2.3	5.29	39.4	28.27	32.06
MIN	14.61	10.35	16.99	0.19	0.17	12.96	11.81	9.58
SD	9.34	11.78	22.36	0.78	1.45	10.21	8.25	9.16

Source: Prepared by the two researchers based on the financial reports of the banks, the research sample, and the outputs of the Excel.

4.1 S-score Bankometer Model for Future Financial Performance Evaluation

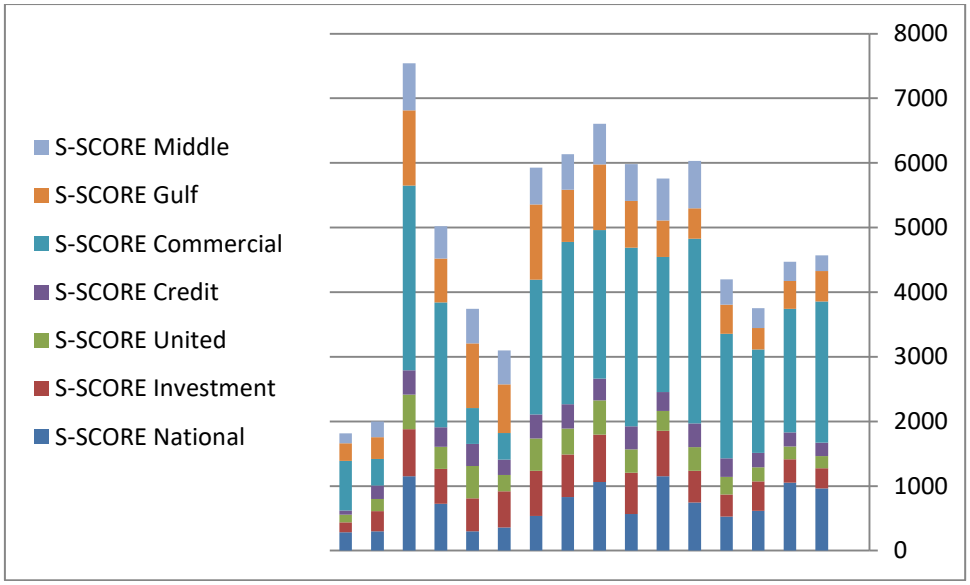
Table (8): S-SCORE Model for the Sample of Banks Research

S-SCORE							
Bank / Year	National	Investment	United	Credit	Commercial	Gulf	Middle
2010	963.766	310.842	186.785	211.373	2181.74	470.32	245.333
2011	1053.841	359.577	196.481	219.308	1915.054	426.935	297.739
2012	617.711	453.531	219.765	222.825	1597.803	334.887	304.019
2013	527.402	342.4619	272.48	286.607	1928.843	448.344	393.908
2014	746.617	486.798	370.924	366.409	2857.186	471.864	731.143
2015	1150.414	705.449	304.274	295.091	2091.898	562.265	649.091
2016	569.209	637.898	359.576	358.103	2765.099	720.504	571.372
2017	1062.392	731.531	531.866	338.06	2296.415	1016.025	631.557
2018	828.571	662.213	399.673	376.516	2511.297	806.2406	549.591
2019	537.981	699.549	497.142	372.009	2084.421	1164.31	570.835
2020	358.287	562.041	251.727	237.156	411.334	754.101	526.12
2021	300.147	508.402	502.792	340.864	553.51	999.825	538.043
Average	726.3615	538.35	341.123	302.02675	1932.8	681.301717	500.729
MAX	1150.414	731.531	531.866	376.516	2857.186	1164.31	731.143
MIN	300.147	310.842	186.785	211.373	411.334	334.887	245.333
SD	285.387994	150.71	122.492	64.926539	765.993778	271.487837	154.65

We note from the Table (9) the following:

That all the banks in the research sample have a good future financial performance and a very strong financial position. They do not face any financial difficulties in the future, according to the disclosure of the International Monetary Fund related to the BANKOMETRE model. The average S-SCORE for the research sample banks exceeds the standard threshold of the evaluation model (70%). The Credit Bank recorded the lowest average S-SCORE value at 302.026%, which is within the legal ratio set in the model. Similarly, the Trade Bank recorded the highest average S-SCORE value at 1932.8%. From the above, it is evident that the banks are capable of meeting their obligations without facing any hardships or financial failures in the coming period, except in the case of a major financial crisis.

The figure (1) S_SCORE value of the research sample banks



Source based on the data of Table (8)

5.1Conclusions

After analyzing the data and results in the field of financial analysis using the Bankometer model and in light of the theoretical literature, the study has reached the following conclusions:

1. The study showed that it is necessary to adopt a supportive model for the control processes of banks implemented by the monetary authority. The Bankometer evaluation model was accurate in assessing the financial performance of the study sample banks.

2. According to the current study conducted on the financial performance evaluation of private commercial banks using the Bankometer model and understanding how to apply the model, since all the data used to calculate the model indicators are available and can be extracted from the financial statements of Iraqi private banks, we can say that the Iraqi environment is suitable for applying this model, thus accepting the study hypothesis.

3. The results of the analysis of the Capital to Assets Ratio (CA) showed that all the study sample banks achieved a ratio significantly higher than the minimum threshold of the model's standard, 4%. This

indicates the banks' ability to bear risks and provide the necessary financing for various business operations.

4. The financial analysis results of the Equity to Assets Ratio (EAR) showed that all the study sample banks achieved a ratio exceeding the standard threshold of the evaluation model, 2%. This indicates the ability of the study sample banks to finance their activities using shareholders' funds rather than borrowing. Moreover, all the study sample banks achieved a Capital Adequacy Ratio (CAR) significantly higher than the minimum threshold of the evaluation model, 40%. This ensures the financial strength of the banks, their stability, and the protection of customer deposits.

6. The financial analysis results of the Non-Performing Loans to Total Loans Ratio (NPL) showed a decrease in the average ratio compared to the evaluation model's minimum threshold of 15%. This low ratio indicates the borrowers' ability to repay their debts and the bank's ability to bear the risks associated with the credit portfolio. However, Bank Al-Ahli Al-Iraqi-Baghdad recorded slightly higher averages, which requires studying and analyzing these assumptions and taking precautionary measures.

7.The financial analysis results of the Cost-to-Income Ratio (CIR) showed an increase in the average ratio, indicating that the study sample banks did not follow good management practices for operating expenses and resource allocation. Bank Al-Iqtisad, Gulf Bank, and Mashriq Bank recorded significantly higher rates exceeding the evaluation model's threshold, indicating an inverse relationship between the CIR ratio and profitability for these banks.

8. There was a decrease in the average Loan-to-Asset Ratio (LAR) for the study sample banks, recording rates lower than the threshold of the evaluation model. This indicates that the study sample banks were more liquid and secure in terms of bank liquidity.

9. All the study sample banks recorded an S-SCORE significantly higher than the upper limit of the evaluation model's standard, 70%. This indicates that they are in a sound and financially stable position in the future, except in the case of a crisis occurring.

References

1. Awwad, B. (2023).Capital Adequacy and Profitability Indicators: An Empirical Study on Palestinian Banks. College of Business and Economics, Department of Computerized Banking and Financial Science, Palestine Springer Nature Switzerland.

2. Bolat, A. (2017).Evaluating the current financial state of banking sector in Kazakhstan using Altman's Model, Bankometer Model. Revista ESPACIO. Vol, 38 (Nº 48),Page 4.

3. Chimkono, E. E. (2016).Effect of Micro and Macro-Economic Factors in Financial Performance of Commercial Banks in Malawi. A Thesis Submitted in Partial Fulfillment of the Degree of Doctor of Philosophy in Business Administration (Finance) in the Jomo Kenyatta University of Agriculture and Technology

4. Davis, E. P. and Obasi, U. (2009). The Effectiveness of Banking Supervision. Working Paper No. 09-27. Brunel University West London Department of Economics and Finance.

5. Erari, A. Salim, U. Idrus, M. S. and Djumahir. (2013). Financial Performance Analysis of PT. Bank Papua: Application of Cael, Z-Score and Bankometer. Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X. Volume 7, Issue 5 . PP 08-16.

6. Jothr, O. A. Hameed, A. A. and Mohaisen, H. A. (2021). CAMELS Model and its Impact on the Evaluation of Banking Performance a literature review. Journal of Management and Economics. Mustansiriya University . Issue No. 129 / September / 0202 Pages: 34.

7. Karadas, H. A. (2022).Structure and Stability of the Kazakhstan BBankin System. Journal of Social and Economic Research Kabul/Accepted: 09.05 E-ISSN: 2147-7833.

8. Khan, K. S. (2019).Financial Distress Prediction in Islamic Banking Sector from 'Bankometer Model.

9. Kumar, S. (2019). Analysis of Scheduled Commercial banks: Bankometer Model. International Journal of 360 Management Review, Vol. 07, Issue 01, ISSN: 2320-7132.

10. Landjang, I. S and Tumiwa, J. (2017). Financial soundness evaluation of selected commercial banks in Indonesia: an application of Bankometer model. journal of asean Studies on Maritime Issues Vol. 3 No. 5 November.

11. Limbong, N. D. Kristiana, D. R. and Hatta, A. J. (2022). potensi financial distress pada bank umum berbasis . RGEC. JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi) Universitas Pendidikan Ganesha, Vol : 13 No : 03 .

12. Muhammad, Jassim Muhammad. The volume of banking activity and its impact on the total trading volume. University of Basra, College of Administration and Economics, Department of Banking and Financial Sciences, Administrative Journal, Volume 9, Issue 19.

13. Mehrabadia, M., Najafizadeha, A., and Ashtiyani, p., (2021),"Factors Affecting Stock Prices regarding Uncertainty and Asymmetric Information in Tehran Stock Exchange", Advances in Mathematical Finance & Applications, Vol. 6 , No.3, PP. 535-554 .

14. Muliawati, E., and Saifi. M., (2019)," Leverage, profitability, and company value: Study of textile and garment companies listed on the Indonesia Stock Exchange 2013-2017", Jurnal Administrasi Bisnis, Vol. 72 , No.2, PP.12-21.

15. Rahman, M. Z. (2017). Financial Soundness Evaluation of Selected Commercial Banks in Bangladesh: An Application of Bankometer Model. Research Journal of Finance and Accounting. Paper Online Vol.8, No.2, 201.

16. Rifansa, M. B. and Pulungan, N. F (2022). The Effect of Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Net Interest Margin (NIM), Loan to Deposit Ratio (LDR) and Operational Costs and Operational Revenue (BOPO) On Return on Assets (ROA) in Bank IV Indonesia. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Volume 5, No 2, Page: 15723-15737 e-ISSN: 2615-3076 (Online), p-ISSN: 2615-1715 (Print).

17. Saddam, S. Z. Jaafar, M. N Muhamat, A. A. and Ahmad, I. (2022). FACTORS AFFECTING FINANCIAL STABILITY OF ISLAMIC BANKS USING BANKOMETER MODEL: EVIDENCE FROM MALAYSIA. Journal of Entrepreneurship, Business and Economics ISSN 2345-4695 .

18. Saputri, H. A. and Krisnawati, A. (2020). Comparative Analysis of Modified Altman Z-Score, Springate, Zmijewski, Bankometer, Grover, and RGEC Models for Financial Distress Prediction. International Journal of Multicultural and Multireligious Understanding. Volume 7, Issue 4. Pages: 260-27.