Measuring the impact of internal profitability determinants on banking performance:An analytical study of a sample of private commercial banks listed on the Iraq Stock Exchange for the period (2010-2023)

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Abstract : Commercial banks are a key pillar of the Iraqi national economy, as they act as financial intermediaries by transferring funds from those with surpluses to those with deficits. The research aims to identify the determinants of internal profitability that affect banking performance and then answer the research question (is there a correlation and impact of internal profitability determinants on banking performance). To achieve the objective, a sample of (10) commercial banks listed on the Iraq Stock Exchange for the period (2010-2023) was selected. To prove the research hypotheses, the determinants of internal profitability (as independent variables) were measured by financial indicators (capital adequacy, asset quality, management quality, and bank size) while banking performance (as dependent variable) was measured by the following financial indicators (return on assets (ROA) and return on equity (ROE)). The research used a series of tests and analyses using financial and statistical software (SPSS vr24, R-Program, Microsoft excel LTSC 365) to prove the hypotheses and achieve the research objective.

The research included a number of conclusions, most notably that all the sample banks achieved a stable capital adequacy above the prescribed minimum. This indicates that the banks have a strong capital base and a high ability to face risks. The research concluded with a number of recommendations, the most important of which is the need to reduce the size of non-performing loans to the maximum extent possible, as they have a negative impact on the profitability and performance of banks, because these loans hinder the ability of banks to provide credit and expand their investments, and thus constitute an obstacle to the growth, development and continuity of the bank.

INTRODUCTION: The banking sector is the main engine of any modern economy and the main pillar of stability and growth, as it plays vital roles in mobilizing savings, financing investments, and facilitating payment and settlement processes, making it a key driver of economic development. In this context, banking performance stands out as one of the most important indicators that reflect the health of this sector and its ability to perform its functions efficiently. **Profitability** is the most prominent and most comprehensive measure to assess this performance, as it not only reflects the bank's ability to achieve returns for its shareholders, but also indicates the extent of its operational efficiency, its ability to survive and continue, and face financial risks and economic crises, the profitability of banks is affected by a set of internal determinants, which are those factors that fall within the control of the bank management and its strategic decisions, hence this research sets out to highlight the private banking sector in Iraq. The main research problem lies in determining the relative nature of the impact of each of the internal determinants on the profitability of Iraqi private commercial banks. The research was divided into four sections, the first section included the scientific research methodology, the second section dealt with the theoretical framework of internal determinants, profitability and bank performance, the third section dealt with the practical aspect, and the fourth section dealt with a set of conclusions and recommendations.

2. The first research

2.1. Research Methodology

2.2. Research Problem: Understanding the factors that affect the profitability of banks is essential for decision makers, investors and financial analysts. Based on the above, the research question is as follows:

Is there a significant impact of internal profitability determinants on the financial performance of the sample banks?

○ Is there a significant impact of internal profitability determinants (capital adequacy, asset quality, management quality, and bank size) on the rate of return on assets.

○ Is there a significant impact of the determinants of internal profitability (capital adequacy, asset quality, management quality, and bank size) on the rate of return on equity.

2.3. Importance of the research: The research provides analytical and practical insights, empirically supported, into the key internal determinants that bank managements can optimize to enhance profitability and overall performance. These determinants include capital efficiency, asset quality, management effectiveness, and operating expense management. Understanding these factors enables management to develop more effective strategic plans, allocate resources efficiently, and manage potential risks. The research findings provide investors with a clearer, data-driven understanding of the factors that affect the profitability and performance of banks in Iraq, helping them make more informed investment decisions within the Iraqi listed banking sector, as profitability is a key indicator for attracting customers and building trust.

2.4. Research Objectives: This research mainly aims to analyses and measure the impact of some determinants of internal profitability on the performance of commercial banks in Iraq for the period (2010-2023):

1. Clarifying and discussing the intellectual debate about the research variables and what are the trends and opinions of researchers regarding the research variables and the materialization of these variables in a theoretical framework as well as their application in the practical aspect.

2. Measuring and analyzing the impact of internal profitability determinants on the banking performance indicators of Iraqi commercial banks in the research sample.

3. Describe and analyses the development of the main profitability indicators (return on assets and return on equity) of the sample banks for the period 2010-2023.

2.5. Research hypotheses: Based on the research problem, the main hypothesis was formulated according to the independent variable and its impact on the dependent variable, from which a set of sub-hypotheses are derived as follows: -

First: The main hypothesis (There is no significant effect of internal profitability determinants on the financial performance of the sample banks). The following sub-hypotheses are derived from it: -

1. The first sub-hypothesis: There is no significant effect of internal profitability determinants (capital adequacy, asset quality, management quality, and bank size) on the rate of return on assets.

2. The second sub-hypothesis: There is no significant effect of internal profitability determinants (capital adequacy, asset quality, management quality, and bank size) on the rate of return on equity.

2.6. Limitations of the research

1- Temporal Limits: - The research period included thirteen years from 2010 to 2023, due to the general availability of information on all banks.

2- Spatial Boundaries: - The spatial boundaries are commercial banks listed on the Iraq Stock Exchange (ISE) and included (10) commercial banks listed on the ISE, as these banks were selected for their capital strength and their practical position in the markets as well as the availability of their data, and excluded banks that are under guardianship and subject to liquidation.

2.7. Research sample and population

The research relied on the purposive sampling method, as the research sample was selected from (10) banks represented by

(Al-Ahli Iraqi Bank, Iraqi Estithmar Bank, Al-Muttahid Bank for Investment, Iraqi E'timan Bank, Iraqi Tijari Bank, Al-Khaleej Commercial Bank, Sharq Al-Awsat Iraqi Bank, Mosul Bank for Development and Investment, Baghdad Bank, Sumer Commercial Bank) As a sample of the total of 22 Iraqi commercial banks.

2.8. Data Collection Tools in Research

In order to achieve the objectives of this research, a set of methodological methods were used to collect and analyze data, both theoretically and practically. The following is an explanation of the most important of these methods:

1. Theoretical aspect: In order to support the theoretical aspect of the study, a set of intellectual contributions of researchers and writers have been relied upon. Various sources, such as books, journals, theses, researches and scientific studies, have been collected, in both Arabic and foreign languages, which are directly related to the subject of the study.

2. Analytical and Benchmark Aspects: In order to cover the field aspect of the study, the annual reports of the published financial statements of the commercial banks included in the sample, which were listed on the Iraqi Stock Exchange and the Iraqi Securities Commission, from 2010 to 2023, were relied upon.

2.9. Hypothetical Model of the Study

In light of the problem and objectives of the study, the systematic treatment requires the design of a hypothetical model in which the most important impact relationships of the variables included in the research are determined, and the hypothetical scheme of the study can be shown in Figure (1) as follows:
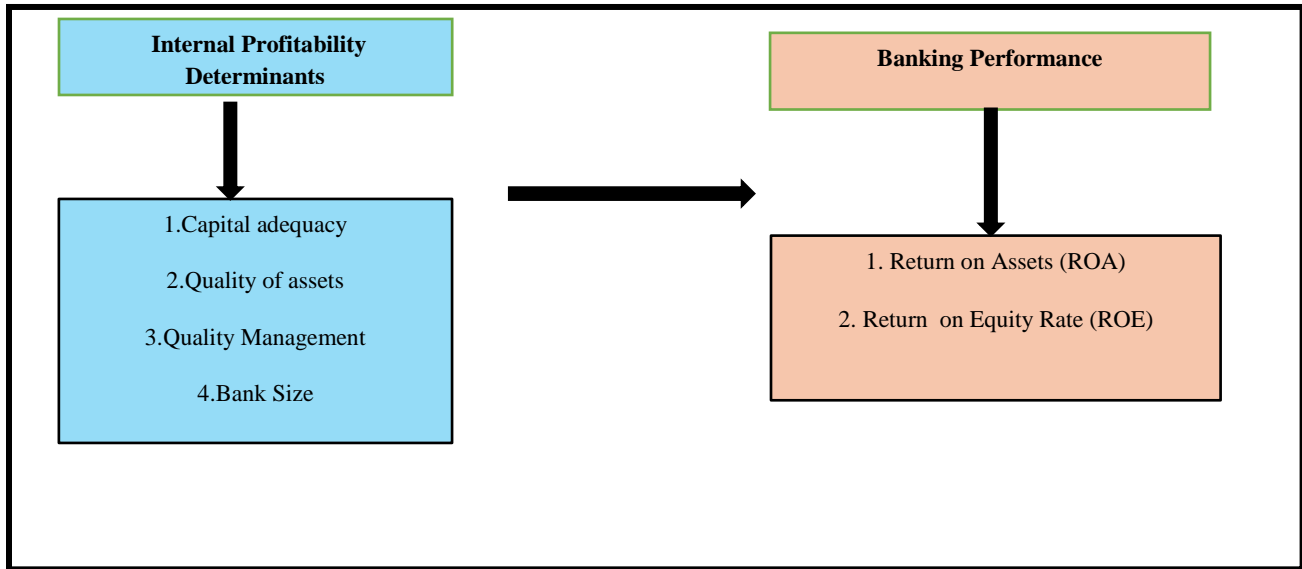

Figure (1) Hypothetical outline of the study

Source:
1. Sarwar, Bilal, Mustafa, Ghulam, Abid, Aroosa & Ahmad, Muhammad " Internal And External Determinants Of Profitability: A Case Of Commercial Banks Of Pakistan ", 2018.
2. Al-Hilali and Al-Shammari, Noura Mohsen Dakhil and Kamal Kazem Jawad, Measuring and Analyzing the Financial Performance of Iraqi Commercial Banks, 2022.

2.10. Analysis Indicators Used in Research

The indicators used to analyze and measure the effect of the independent variable in the dependent variable can be illustrated through the table below:

Table (1) Analysis Indicators Used in the Study

Internal Profitability Determinants Indicators			
NO	index	Measurement Equation	source
1	Capital adequacy	Total Risk-Weighted Capital/Assets × 100	Changjun Zheng, et al, 2017:8
2	Quality of assets	Non-performing loans/total loans × 100	Getahun, 2015: 17
3	Quality Management	Operating expenses ÷ total assets × 100	KILIÇ, et al,2010:5
4	Bank Size	Natural Logarithm of Total Assets	Bohara,2024;135
Banking Performance Indicators			
NO	index	Measurement Equation	source

1	Rate of return on assets	Net Profit / Total Assets × 100	Ilie& Munteanu,2021:1080
2	Return on Equity Rate	Net Profit / Total Equity × 100	Ichsania& Suhardib, 2015:898

Source: Prepared by the researcher based on the sources mentioned in the table above.

2.11. Previous Studies

1. Study (Sarwar, et al: 2018)

Research Title	Internal and External Determinants of Profitability: A Case of Commercial Banks of Pakistan
Research Duration	From 2006 to 2015
Sample size	We took data from 21 commercial banks listed on the Pakistan Stock Exchange.
Research Objective	The aim of this research is to investigate the internal determinants (bank size, capital adequacy, asset quality, asset management, liquidity, management quality, and financial risks) and external (GDP, inflation, interest rate, exchange rate).
Conclusions	The results indicate that among internal factors, bank size, capital adequacy ratio, liquidity, quality of management, and asset management are found to be important determinants of banks' profitability. In the case of external factors, GDP and exchange rate are important determinants of profitability, while interest rate is important at the level of 10% importance.
Recommendations	Banks need to improve asset quality in order to improve profitability. The country's fiscal policy must be in line with the needs of the banking sector.

2. Hassoun's Study (2022)

Research Title	Analysis and measurement of internal factors affecting the profitability of commercial banks An Applied Study on the Bank of Baghdad and the Middle East Bank.
Research Duration	2019-2010
Sample size	It consists of two banks (Bank of Baghdad and Middle East Bank).
Research Objective	The purpose of the research was to analyze and measure the impact of internal factors represented in (cash liquidity, debt ratio, capital adequacy, credit facilities to assets, bank size, and quality of banking service) affecting the profitability of Iraqi commercial banks.
Conclusions	The research showed that the internal factors that have the most impact on the profitability of commercial banks in the study sample differed from one bank to another, and the research recommended to enhance the attention to the capital adequacy ratio, debt ratio and cash liquidity because of their significant impact on the profitability of the commercial banks in the research sample.
Recommendations	The banks in the research sample should increase the volume of credit facilities granted because of the effect of this in increasing the net interest and enhancing and developing the quality of the banking service provided to attract new customers, retain customers, pay more attention to the capital adequacy ratio and the size of the bank, and thus increase the profitability of the bank.

3. The second research

3.1. Theoretical aspect of the research

3.2. The concept of profitability

Profitability represents the final outcome of the management policies and decisions taken, and profitability rates express the net operating results resulting from the cumulative effects of liquidity, asset management, and debt management (Achim, 2008:4), and profitability can be defined as the relationship between the profits achieved by banks and the investments that contributed to achieving these profits. Profitability is measured either through the relationship between profits and sales or through the relationship between profits and the investments that helped achieve them. Commercial banks seek to achieve profitability by making pivotal investment and financing decisions (Sangeetha, 2012:172). Profitability represents the ability of an organization to manage its business in a way that ensures regular profits over time, and these profits contribute to supporting economic development by creating more jobs and increasing revenues (Mudashiru et al. 2013:156).

3.3. The importance of profitability

Bank profitability is a key factor in determining the ability to employ and grow, and is a key indicator of the success or failure of banking organizations. It enables banks to retain a certain level of risk and provides the necessary protection in the face of crises. (Nguyen, 2001:35). Profitability in commercial banks is one of the main tools for evaluating banking performance and an important element in promoting bank growth and development. Achieving and maximizing profits is the main objective of any bank, without which the bank cannot continue its business (Saleh, 2006:6). It contributes to the bank's ability to face various risks such as credit risk, insolvency risk, investment risk, and interest rate risk. In addition, profitability contributes to enhancing the value of banking institutions and increasing customer confidence through the returns achieved, which helps in attracting capital, expanding business and creating a competitive advantage (Dagher and Jadah, 2024: 56). Without profitability, banks cannot face the risks associated with their banking activities or continue to operate in the short and long term. (Aduda & Gitonga, 2011:936).

3.4. Sources of Profitability in Banks

Banks obtain profits from their various operations in the form of various forms, as the services provided by banks are in exchange for interest or fees, as well as the profits they make from their investment operations, collectively represent the bank's profits. The most important sources of profitability in commercial banks can be identified through the following: (Baratanovic & Greuning, 2009: 87), (barakat et al, 2024:2)

1. Interest on loans: One of the main functions of a commercial bank is to receive money in the form of deposits with the aim of lending it at a higher interest rate. Banks grant loans of various types to industrialists and traders, and the interest on these loans is the largest component of the bank's income. Loans are an attractive investment option for banks due to the high rates of return achieved compared to other investments.

2. Interest from investments: Banks invest a significant portion of their financial resources in bonds and government securities. The interest and profits generated from these investments are a major source of income, and banks can receive capital gains if the prices of these securities rise in the market. Investing in securities represents an alternative to cash and enables the bank to maintain a cash balance that meets its liquidity needs.

3. Operating Revenue: Banks generate additional revenue from providing various services to customers in exchange for commissions. These services include traditional banking activities such as providing financial advisory, cheque collection, financial leasing services, accepting bills of exchange, and documentary credit services.

3.5. Determinants of Internal Profitability

In their endeavor to enhance their profitability, private Iraqi banks are influenced by a variety of factors that vary in their impact on the achievement of profitability. These factors include determinants that relate to the structural characteristics of the bank as well as those associated with the banking industry itself (Dietrich & Wanzenried, 2011:307). Internal determinants refer to the factors that emerge from banks' financial accounts, such as the balance sheet and the profit and loss account, and can therefore be considered as bank-specific determinants. (Alcham & Al-Jafari, 2014:17-18, Raza et al, 2021:879). These determinants are a set of variables that reflect the results of the bank's internal activities and are influenced by its management levels, such as capital adequacy, asset quality, management efficiency, and bank size (Owoputi et al., 2014:410). These factors affect the level of risk, market power, and organizational costs. The internal determinants of bank profitability can be defined as the factors that are influenced by management decisions and objectives. (Ramadan et al., 2011:181). The determinants of profitability can be divided into internal and external determinants and the most important internal determinants can be summarized as follows: (Sarwar et al, 2018:40):

1- Capital Adequacy

Capital in banks is a key pillar that aims to absorb potential losses and support the infrastructure of financial institutions. This topic has gained widespread attention at the global level, which led to the development of international regulations that require banks to maintain certain capital adequacy ratios. These regulations aim to impose weights commensurate with the level of risks associated with banking activities, obliging banks to provide sufficient capital to face these risks (Al-Karasneh, 2010: 8). In the Iraqi banking sector, commercial banks must maintain a capital adequacy ratio of at least 10% before the formation of the prudential pillar[1] , and increases to 12.5% after the formation of the prudential pillar, which reflects the relationship between the capital base and assets weighted by risk weights covering credit, market and operational risks, with an emphasis that the own funds should not fall below a certain limit according to the instructions of the Central Bank of Iraq, which has the authority to modify the ratio if necessary. (Regulatory Controls, 2018: 3). This indicator determines the ability of financial institutions to withstand potential shocks that may affect their balance sheet items, as capital adequacy ratios contribute to the assessment of underlying financial risks such as exchange rate fluctuations, credit risk, and interest rates (Al-Omaid, 2010: 7). Capital adequacy can be calculated based on the following formula: (Zheng, et al, 2017:8)

Total capital / risk-weighted assets x 100 ....(1)

2- Asset Quality

Asset quality is one of the most important factors in determining the overall health of a bank. The primary factor affecting asset quality in general is the quality of the loan portfolio and the credit management programmed. Loans typically constitute the majority of a bank's assets and carry the greatest amount of risk to its capital. Securities may also comprise a significant portion of assets and also contain significant risk. Other items that can affect asset quality are real estate, other assets, off-balance sheet items and, to a lesser extent, cash and receivables from accounts, buildings and fixed assets (Adeolu, 2014:39-40). Asset quality is defined as "the likelihood of losses on assets when they do not generate returns as promised" (Faruque & Rahman, 2018:45). Commercial banks allocate most of their

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[1] The prudential pillar imposed by the Central Bank is an additional capital reserve, built up from banks' annual profits, to protect them during periods of financial crisis and economic volatility. It aims to strengthen banks' capital requirements to ensure their ability to cover potential losses and maintain their financial stability.

financial resources to investing in loans and securities, as these two areas are two of the most important investment channels for a commercial bank. The higher the proportion of resources directed towards these assets, the higher the profitability of the commercial bank, as the revenue generated from them, especially from loans, is the main source of income for the bank. The proportion of resources invested in income-generating assets has a significant impact on the bank's profitability. The decision of the bank's management to allocate its resources in loans and financial investments depends on several factors, most importantly the need for liquidity and the availability of good and profitable investment opportunities (Merhej et al. 2014: 336). It can be measured by the following formula: (Getahun, 2015: 17)

Non-Performing Loans / Total Loans x 100 ....(2)

3- Management Quality

Management is an integrated science, system and thought that includes application and decision-making, which aims to achieve high performance at the level of the company in its various departments and administrative levels through the optimal use of human, material, financial and information resources, which contributes to achieving the objectives of the organization effectively and efficiently through planning, organizing and controlling the resources of the joint stock company (Al-Zubaidi, 2013: 48). The profitability of banks depends on the ability of their management to achieve a balance between return and risk, as well as their ability to minimize costs and maximize revenues. The bank's management through the organization of its financial structure, both in terms of resources and uses, reflects its efficiency in achieving its objectives and maximizing shareholders' wealth, as well as achieving profitability (Ziauddin, 2022: 14). Management quality is influenced by two main concepts: cost and efficiency. Cost refers to the operational expenses incurred by banks as an indicator of management efficiency, which often has a negative impact on the bank's profitability. These costs represent the expenditures needed to carry out banking activities and can either increase revenues or lead to losses (Kosmidou, 2008: 149). The concept of efficiency plays a vital role in enhancing the competitive position of commercial banks, especially in light of the international openness and globalization of the industry. This encourages banks to increase growth rates, productivity and investment in manpower to enhance profitability (Delis et al., 2008: 128). The quality of management can be measured by the following formula: (KILIÇ, et al, 2010:5)

Operating expenses ÷ Total assets x 100 ....(3)

4- Bank size

The size of the bank is one of the main factors that affect the profitability of banks. Large banks (with high equity) are characterized by their higher ability to provide new and distinctive banking products and services compared to small banks, due to their large potential and resources in developing services and investment. These banks can capitalize on their monopoly power, and large banks tend to provide diverse services in local and international markets with tailor-made products and services, which are usually offered only by a limited group of large banks, giving them a monopoly advantage that contributes to achieving higher levels of profitability. (Nasrawi, 2021: 33). Many researchers agree that the size of an organization has a significant impact on its performance; large organizations often enjoy superior performance, due to their greater ability to take advantage of economies of scale and organize their activities effectively. In addition, the size of an organization may positively affect its performance, as large organizations are able to obtain advantageous deals in capital markets or in other factor markets. (Ghafar2021.:615). The size of a bank can be measured through the following equation: (Bohara,2024;135)

The natural logarithm of total assets ....(4)

3.6. Bank performance

The financial performance of banks refers to the extent to which they achieve the set financial objectives and implement their financial activities (al-shaghdari et al, 2023: 34). Financial performance is the main measure that highlights the efficiency of banks' financial operations and practices, and reflects their ability to provide the necessary financial resources and meet investment and related needs (al-ardaha & al-okdeha, 2021: 22).From another perspective, banking performance represents a clear picture of the real financial situation of banks, as it reflects the extent of their ability to exploit their available financial resources to achieve their objectives and maximise their financial gains (Mukumbi et al, 2020: 166) and that banking performance represents the final stage of the bank's activities, as it focuses on achieving long-term objectives that include continuity and growth, which are strategic objectives that contribute to supporting the bank's sustainability (Wheelan, 2000: 231) and the implementation of all activities within a specific time frame, so that its output reflects value that can be measured in the future (Neely, 2007: 127).It measures the results of the bank's policies and operations using monetary units. (Sultan, 2014:49) In this research,

3.7. Evaluation of Banking Performance

Performance appraisal is an essential tool to determine the extent to which banks are achieving their predetermined mission and objectives (Tilleman & Bogt, 2010: 769). Performance appraisal is defined as the process of measuring effectiveness and analyzing the bank's performance to ensure the optimal use of available resources, as well as ensuring that the bank is able to achieve the desired objectives, such as generating future profits and achieving the established plans. The appraisal also supports management in making important decisions, such as salary increases, promotions, correction and avoidance of mistakes, as well as other matters related to the bank's work. The appraisal system includes a variety of pre-defined objectives, and is used to detect and explain errors, while seeking to identify Optimal Solutions for It (Showkat, 2013: 69) ، The concept of evaluating banking performance is manifested in measuring the efficiency of banks and the extent to which they achieve their objectives through the coordination between available resources and the results achieved (Ham, 2009, 10). It is also defined as a set of procedures that are used to compare actual results with planned objectives, to determine the compatibility of performance with the set objectives and to assess the efficiency of banking activity. This includes comparing inputs with outputs to ensure that banking performance is achieved with a high degree of effectiveness (Attar, 2013: 2). The process of evaluating banking performance is embodied through a set of indicators that show the success and development of banks, as these indicators become criteria to measure the extent to which banks achieve their objectives and the effectiveness of the results of their activities. The evaluation indicators are linked to the main objectives of the bank's activities, which include identifying strengths and weaknesses, making recommendations, and taking measures to face and overcome challenges. (Rahim, 2012: 386). The main reason for evaluating banking performance is that it is a fundamental pillar of the economy, as the strength of the economy depends on the efficiency of the financial system. Banks are also a vital part of this system, as they play a pivotal role in collecting deposits and providing loans to various sectors of the economy (Malhotra & Aspal, 2013: 73).

3.8. Banking Performance Indicators

Financial indicators are one of the basic and important tools in evaluating the financial performance of banks, as they allow the bank to measure its ability to meet its outstanding liabilities, making them key diagnostic tools within the financial analysis tools. The analysis process begins with performance measurement and ends with a comprehensive evaluation of financial performance (Panday, 2021:9). This process depends mainly on the relevance of financial indicators and their ability to measure performance accurately, as financial ratios are mathematical relationships that link different numbers, often presented in the form of ratios, which makes them easy to measure and effective in providing a clear measure of banks' performance thanks to the presence of a large number of financial indicators (Roes, 2002:153). These indicators can answer fundamental questions such as: How well has the bank performed compared to its past performance or that of its competitors, and how is the bank's performance likely to be in the future?

Based on these analyses and forecasts related to future performance, the value of the bank or the securities it issues can be determined, which helps to provide accurate insights to decision-makers and investors about the bank's financial position and future. The primary source of data is the Bank's annual report, including financial statements, observations and management comments (Robinson et al. 2015, 291).

A bank's performance can be evaluated through various variables or indicators, as the variable or indicator used as a basis for evaluation is the bank's financial statements, which are analyzed and evaluated to measure its performance. Information regarding the financial position and past financial performance is often used as a basis for predicting the financial position and future performance (Sukmadewi, 2020: 2).

There are several financial indicators adopted by financial analysts, including (capital adequacy, liquidity, leverage , profitability) and others, and financial statements are the main source of these indicators, which can be obtained from financial reports and statements, to become information that helps the beneficiaries to make their decisions. In this study, the most important profitability indicators will be used to measure banking performance, which are as follows:

1. Return on Assets (ROA)

Return on Assets (ROA) is one of the most important financial indicators used to evaluate the performance of companies in general and banks in particular. This indicator provides a snapshot of management's efficiency in utilising the bank's assets to generate profits, and is a key benchmark for measuring profitability and operational performance. (Septinia, 2022:5). Return on assets (ROA) is a financial ratio that measures the net income generated per unit of money invested in the bank's total assets. In other words, it shows how effectively a bank uses its assets (such as loans, investments, buildings and equipment) to generate profits. Net income represents the profit earned by the bank after deducting all expenses, taxes and interest during a certain period of time (annual). Total assets are the monetary or equivalent value of all property and resources owned by the bank. This total is presented on the asset side of the statement of financial position (balance sheet), and during the same period. (Mishkin, Eakins, 2018:438). Return

on Assets (ROA) is one of the most important indicators used by analysts and investors to assess a bank's efficiency in using its assets to generate profits. Simply put, ROA is calculated by dividing net income by total assets over a certain period of time; this reflects management's ability to convert its investment in assets into real profits. In other words, ROA shows how well a bank is able to utilize its assets, whether cash assets, investments or loan portfolio, to generate reliable net income, which is an indicator of efficient banking performance. (Kusuma, 2021: 97). It is calculated as follows: (Ilie & Munteanu, 2021:1080)

Net Profit / Total Assets x 100 ....(5)

2. Return on Equity (ROE)

Return on equity or profit to equity is the most important indicator of profitability, which measures the performance of banking management in all its dimensions, and provides a picture of the way the capital brought in by shareholders is utilized, and the impact of keeping it in the bank. (Zielińska et al, 2022:17). It is one of the most characteristic measures of the performance of some commercial banks. In the case of commercial banks, the normalized margin of this ratio is estimated to be between large samples of 10% and 30% (Alexandru & Romanescu, 2008:3). Return on Equity (ROE) is a financial ratio that refers to the amount of profit made by the bank compared to the total amount of invested shareholders' equity on the balance sheet. ROE is what shareholders are looking for in return for their investment. A bank with a high ROE is more likely to be able to generate cash internally, so the higher the ROE, the better the value of the bank. Since ROE reflects how efficiently the bank's management utilizes shareholders' funds. Hence, we can conclude that the better the ROE, the more efficient the management is in utilising the shareholders' capital. (Ongore, & Kusa, 2013:239). It is measured by the following formula: (Ichsania & Suhardib, 2015:898)

Net Profit / Total Equity x 100 ....(6)4. The third discussion

4.1. The Practical Aspect

4.2. Financial analysis of internal determinants of profitability

This section deals with analyzing the internal determinants and presenting their results within the research sample, which included the Iraqi private commercial banks represented by (AlAhli Bankof Iraq, Iraqi Estithmar Bank, AlMuttahid Estithmar Bank, Iraqi Credit Bank, Iraqi Commercial Bank, Iraqi Commercial Bank, Gulf Commercial Bank, Middle East Iraqi Bank, Mosul Bank for Development and Investment, Baghdad Bank, Sumar Commercial Bank) for a period of time spanning (13 years) from 2010 to 2023.

1. Capital Adequacy Index

Achieving an appropriate level of capital adequacy is one of the main priorities for banking departments, due to the importance of this indicator in determining the minimum capital that banks must hold according to the ratio prescribed by the Central Bank of Iraq (CBI), which is not less than (12.5%). Failure to comply with this ratio and when it falls below the required limit leads to the bank's failure and its inability to meet its obligations. Determining the appropriate capital adequacy ratio is important in enhancing the strength and stability of banks, as well as its role in protecting the rights of investors and depositors. The capital adequacy ratio can be measured through the following formula:

Capital Adequacy = (Total Capital ÷ Risk Weighted Assets) x 100 ....(1)

The capital adequacy index can be represented in Table (2), which shows the index ratios for the sample banks for the period (2010-2023) as follows:

Table (2) Capital Adequacy Index for the research sample banks

Bank	Ahli	Estithmar	Muttahid	E'timan	Tijari	Khaleej	Sharq	Mosul	Baghdad	Sumer
Year	%	%	%	%	%	%	%	%	%	%
2010	94.33	84.82	50.35	26.03	37.54	32.28	37.23	50.61	27.86	123.70
2011	141.46	63.17	39.60	40.46	73.01	45.79	43.14	57.05	29.41	104.78
2012	135.38	48.63	56.43	26.57	64.84	43.04	53.04	76.89	39.32	143.89
2013	66.34	56.56	50.89	37.18	106.05	80.88	56.68	85.76	36.05	172.64
2014	79.78	134.52	59.23	59.44	79.81	75.19	104.40	80.76	32.15	164.32
2015	123.82	143.88	74.13	77.97	93.09	58.11	98.90	109.41	40.17	183.26
2016	98.68	183.91	72.00	55.35	78.25	50.49	105.95	86.04	39.89	163.32
2017	78.34	149.64	71.05	69.95	66.62	84.31	111.84	101.57	45.30	168.73

2018	81.84	107.55	66.10	164.41	84.24	89.14	109.19	132.54	54.52	151.32
2019	54.90	120.19	55.02	227.78	102.61	107.56	106.16	100.01	47.06	225.14
2020	39.30	126.03	55.90	706.51	93.86	95.13	102.28	114.81	48.03	243.45
2021	17.29	79.58	40.71	357.27	64.83	106.12	122.97	82.71	32.33	273.04
2022	16.43	57.86	42.75	83.13	58.44	106.58	73.32	73.22	26.95	336.69
2023	14.32	55.73	66.04	88.10	68.18	107.52	77.73	65.07	21.76	392.36
Average	74.44	100.86	57.16	144.30	76.53	77.30	85.92	86.89	37.20	203.33

Source: Prepared by the researcher based on the financial reports of the sample banks for the period (2010-2023) and the outputs of Excel 365.

We note from Table (2) that the capital adequacy ratios are within the stable limits required by the Central Bank of Iraq (12.5%), as all sample banks achieved higher capital adequacy ratios than the prescribed ratio, which indicates the stability of the sample banks in terms of capital adequacy for all years. We also notice from the average capital adequacy ratio that the highest average was achieved by Sumar Bank due to the high capital adequacy ratio, especially in the years (2019-2023) and this explains the ability of Sumar Bank to absorb risks as it has a large capital capacity, while the lowest average capital adequacy ratio reached (37.20%) for Baghdad Bank and although it is the lowest average capital adequacy ratio compared to the research sample banks, it is within the acceptable and good limits set by the Central Bank of Iraq (CBI). It is worth noting that an exaggerated increase in this ratio of more than (100%) does not necessarily indicate the stability of the bank, especially if this increase came at the expense of the bank's loans and investments. In addition, the high ratios of this indicator for the sample banks means that the banks did not exploit their own resources in the required manner that achieves higher returns while bearing higher risks, while the banks that achieved low ratios are due to an increase in granting credit facilities and investing their resources in order to achieve higher profits.

2- Asset Quality Index

Asset quality is one of the most important elements in assessing the financial situation of banks, and this ratio is a key measure of the stability of the loans granted by the bank and its ability to manage credit risks. The higher the ratio of this indicator, the more it indicates the inability and ability of banks to collect their debts from debtors, which negatively affects the profitability of banks. Keeping the indicator ratio within a low level of non-performing loans has a direct impact on the profitability of the research sample banks and can be measured by the following formula:

Asset Quality = (Non-Performing Loans / Total Loans)× 100 ....(2)

The asset quality index can be represented in Table (3), which shows the ratios of the index for the research sample banks for the period (2010-2023) as follows:

Table (3) Asset Quality Index for the research sample banks

Bank / Year	Ahli %	Estithmar %	Muttahid %	E'timan %	Tijari %	Khaleej %	Sharq %	Mosul %	Baghdad %	Sumer %
2010	16.28	7.90	1.00	98.36	919.32	3.85	1.62	2.35	14.86	9.38
2011	17.16	2.82	1.60	109.61	297.81	3.34	0.96	1.45	21.43	5.85
2012	11.08	1.54	1.58	107.05	295.98	4.20	0.82	0.67	26.35	3.13
2013	7.29	2.11	3.05	319.27	383.41	7.21	1.26	1.85	16.14	3.01
2014	9.37	3.71	5.78	351.78	219.69	12.72	1.40	1.80	20.84	3.51
2015	14.30	2.56	14.05	240.89	211.72	11.13	4.11	2.44	12.61	3.61
2016	23.32	6.29	24.75	289.63	130.05	15.50	0.92	2.23	9.41	3.94
2017	46.07	15.33	10.02	100.00	98.40	25.43	4.26	2.21	20.81	4.19
2018	27.39	14.54	50.37	100.00	162.23	35.75	7.23	13.23	98.84	2.56
2019	12.76	52.91	28.52	100.00	176.85	20.50	1.15	13.07	100.27	2.35

Year									
2020	10.36	77.04	65.88	100.00	57.36	14.43	18.29	22.89	124.63	3.34
2021	4.30	48.42	35.24	100.00	84.27	144.93	17.50	50.25	135.78	4.49
2022	4.14	31.04	21.39	100.00	181.34	170.86	6.56	36.48	141.50	22.46
2023	2.87	14.74	34.05	100.00	192.51	200.06	7.93	20.19	98.86	7.81
Average	14.76	20.07	21.24	158.33	243.64	47.85	5.29	12.22	60.17	5.69

Source: Prepared by the researcher based on the financial reports of the sample banks for the period (2010-2023) and the outputs of Excel 365.

We notice from Table (3) a disparity in the asset quality ratios, as the AlTijari Bank of Iraq recorded the highest ratio for the average of the sample banks (243%).This means that the bank suffers from non-performing loans in relation to the volume of credit facilities granted and this adversely affects the bank's profitability and financial performance due to the high ratio in 2010 and then the ratio began to improve despite the very high compared to other banks, in addition to that the E'timan Bank records the second place in non-performing loans with an average (158%) due to the high defaults during the security events experienced by Iraq during the years (2013 - 2017), while the best ratio for the asset quality index was achieved by Sumar Bank with an average ratio (5.69%).This is due to the fact that the credit facilities granted by the bank to its customers are very low compared to other banks, it is natural that the non-performing loans are low compared to the total loans, and it is worth noting that the best bank in terms of asset quality is the AlAhli Bank of Iraq, and the reason for this is that the volume of non-performing loans is low compared to the total credit facilities granted and the large is the best performance among the banks.

3- Management Quality Index

The quality of management is one of the core indicators in assessing the financial performance of banks, as it has an effective role in determining the level of profitability of the bank and the strength of its financial position. This indicator is sometimes referred to as cost efficiency, as it reflects the extent of management's ability to control operating expenses, which contributes to maximizing profits. There is an inverse relationship between the quality of management and profitability; the higher the operating expenses as a percentage of total assets, the lower the bank's profitability, and vice versa. Hence, banks with low ratios of this indicator are considered to be more efficient and profitable than others. Banks seek to minimize these expenses compared to their annual revenues, as this has a direct impact on the net income achieved at the end of the financial year, and thus on the level of profitability. Management quality can be measured by the following equation:

Management Quality = (Operating Expenses ÷ Total Assets) x 100 ....(3)

The following table represents the management quality index of the research sample banks, according to the period from 2010 to 2023:

Table (4) Management Quality Index for the research sample banks

Bank Year	Ahli %	Estithmar %	Muttahid %	E'timan %	Tijari %	Khaleej %	Sharq %	Mosul %	Baghdad %	Sumer %
2010	4.75	3.75	2.67	1.89	6.88	5.24	3.88	2.68	2.35	5.14
2011	3.10	3.48	2.61	4.63	2.82	4.35	3.78	2.70	3.16	5.37
2012	2.05	3.91	4.97	5.48	2.65	4.92	3.58	1.27	2.40	0.76
2013	2.61	3.49	3.65	3.08	3.08	3.90	4.04	2.16	2.18	1.36
2014	3.71	3.57	3.34	1.58	1.72	4.61	4.56	2.57	2.19	2.91
2015	4.59	3.45	3.42	1.27	2.01	3.05	5.26	2.03	2.59	2.22
2016	2.92	2.70	3.70	1.89	2.28	2.38	5.48	1.20	3.69	2.03
2017	5.19	2.85	4.40	1.43	2.89	3.46	4.55	1.35	3.56	3.10
2018	4.13	2.14	6.17	1.52	2.19	2.72	2.88	1.80	2.78	1.47
2019	5.70	2.13	2.09	1.94	2.86	3.39	4.17	1.11	2.52	1.37
2020	4.06	1.82	2.24	1.55	2.77	3.06	3.81	1.28	1.89	2.01
2021	2.79	1.86	2.08	2.10	3.53	2.61	2.55	0.68	1.69	1.30

2022	**3.05**	**1.51**	**1.37**	**2.13**	**2.82**	**3.23**	**2.24**	**1.08**	**1.80**	**1.92**
2023	**2.39**	**1.40**	**1.24**	**1.71**	**3.31**	**2.68**	**1.82**	**1.49**	**1.20**	**5.28**
Average	**3.65**	**2.72**	**3.14**	**2.30**	**2.99**	**3.54**	**3.76**	**1.67**	**2.43**	**2.59**

Source: Prepared by the researcher based on the financial reports of the sample banks for the period (2010-2023) and the outputs of Excel 365.

From the above table, it can be seen that the Mosul Bank for Investment and Development achieved the lowest arithmetic average of the management quality index (1.67%), which makes it the most efficient bank in terms of operational costs and resource management. This outstanding performance reflects effective internal policies and rational management of operations, reflecting the bank's ability to maintain high performance levels without significant fluctuations. The stability of performance and the achievement of consistently low results throughout the research period confirms that Mosul Bank represents an excellent model in achieving operational and administrative efficiency. This makes it one of the most prominent banks in terms of management quality, while the analysis of management quality for Sharq Al-Awsat Bank shows a relatively weak performance over the research period. This fluctuating and declining performance indicates the absence of effective strategies to improve efficiency, or the weak ability to control costs and waste. The ratio then revealed a sudden and significant improvement in administrative efficiency, as the bank recorded its best performance ever in 2023, this sharp decrease in the value of the index represents an important turning point, which may be the result of the adoption of new administrative policies or internal restructuring aimed at improving performance and reducing operational expenses. The arithmetic means of the index reached (3.76%), the highest among all banks in the research sample, placing the bank in the last rank in terms of efficiency. This indicates that the bank was suffering from a significant increase in operational costs or a weakness in the effective management of available resources.

4- Bank Size Index:
The size of a bank is one of the fundamental internal determinants that affect the profitability of banks, as it effectively contributes to enhancing the strength and durability of the bank's financial position, as a result of the diversity of its investment portfolio and the breadth of its operations. The increase in the size of the bank, represented by the natural logarithm of total assets, enhances the bank's ability to employ its resources more efficiently, which reflects positively on profitability levels, and the bank size indicator can be measured using the natural logarithm of total assets, as in the following equation:

Bank size = natural logarithm of total assets ....(4)

The higher this indicator, the more assets the bank has, which enhances its ability to diversify its services and bear market risks more efficiently, and the bank size indicator can be represented by Table (5), which shows the ratios of the indicator for the research sample banks for the period (2010-2023) as follows:

Table (5) Bank size index for the research sample banks

Bank Year	Ahli %	Estithmar %	Muttahid %	E'timan %	Tijari %	Khaleej %	Sharq %	Mosul %	Baghdad %	Sumer %
2010	25.40	26.23	26.97	27.11	26.04	26.33	27.09	25.95	27.59	25.51
2011	25.94	26.52	27.21	26.82	26.23	26.56	27.23	26.28	27.50	25.85
2012	26.54	26.66	27.28	26.54	26.40	26.77	27.43	26.88	27.89	26.32
2013	27.02	26.98	27.35	27.02	26.54	27.38	27.38	27.05	28.20	26.46
2014	27.15	27.05	27.11	27.15	26.83	27.43	27.25	26.58	28.23	26.76
2015	27.01	27.04	27.09	27.15	26.75	27.42	27.24	26.62	28.07	26.63
2016	27.09	27.08	26.99	26.96	26.77	27.41	27.21	26.74	27.81	26.59
2017	27.13	27.08	26.98	26.89	26.86	27.13	27.37	26.74	27.72	26.69
2018	26.99	27.13	26.97	26.93	26.82	27.08	27.41	26.74	27.74	26.74
2019	27.17	27.00	27.13	26.98	26.83	27.03	27.21	26.74	27.76	26.58
2020	27.52	27.07	27.27	26.99	27.15	26.96	27.20	26.71	27.98	26.53
2021	28.23	27.20	27.44	26.87	26.96	27.01	27.19	27.37	28.06	26.64

2022	28.51	27.35	27.40	26.73	26.99	27.04	27.40	27.40	28.18	26.52
2023	29.01	27.59	27.26	26.95	26.91	27.07	27.25	27.39	28.64	26.41
Average	27.19	27.00	27.18	26.94	26.72	27.05	27.27	26.80	27.96	26.45

Source: Prepared by the researcher based on the financial reports of the sample banks for the period (2010-2023) and the outputs of Excel 365.

We note from Table (5) that the data indicate a clear variation in the bank size index among banks during the research period (2010-2023), as Baghdad Bank recorded the highest overall average of (2796.%), indicating that it was the most extensive in terms of assets and geographical spread, and it maintained its superiority in size throughout the years, with clear gradual growth, especially in recent years, while Sharq Al-Awsat Bank came in second place with an average of 27%27., followed by Ahli and AlMuttahid Banks with close averages of 27.19% and 27.18% respectively, indicating stability in the volume of activity of these banks, with a relative upward trend in some years, especially for Ahli Bank, which witnessed a remarkable growth from 25%40.) in 2010 to (29.01%) in 2023, while the rest of the banks such as Investment, Gulf and Credit recorded averages of less than 27%, reflecting relatively lower levels in the size of their assets, despite a kind of stability in performance during the period. Sumar Bank ranked last with an average of (26%). In general, the bank size indicator shows a trend towards stability in most banks, with slight variations in growth from one bank to another. In addition, larger banks (such as Baghdad and Middle East) may be more able to expand and provide diversified banking services such as investments, loans and others, while banks of smaller size suffer from challenges in expansion and growth, which also indicates a lack of expansion capacity or limited operational activities.

4.3. Analyzing Bank Performance Indicators

Despite the multiplicity of indicators used in this type of analysis, profitability indicators are one of the most widely used indicators, as they directly reflect the bank's ability to generate profits, which is the main goal sought by banking institutions to achieve the interests of shareholders and ensure the continuation of banking activity in an environment characterized by intense competition. This research deals with the analysis of profitability indicators, including return on assets (ROA) and return on equity (ROE) The results of the banking performance indicators can be discussed, analyzed and presented as follows:

1- Return on Assets (ROA)

Return on Assets (ROA) is one of the key financial ratios widely used to assess the overall performance of banks and measure how efficiently they use their assets to generate profits. This indicator provides a clear insight into the ability of the bank's management to generate a return on the bank's diversified asset base. Return on Assets (ROA) measures the amount of profit a bank realizes for each monetary unit invested in its assets, and the ROA indicator can be calculated using the following formula:

Return on Assets= (Net Profit ÷ Total Assets) x 100 ....(5)

In general, a high ROA indicates a better performance and a higher ability of the bank to generate profits from its assets, and conversely, a low ROA may indicate inefficient use of assets or difficulties in achieving profitability. The rate of return on assets can be represented in Table (6), which shows the ratios of the indicator for the sample banks for the period (2010-2023) as follows:

Table (6) Return on Assets Index for the research sample banks

Bank **Year**	**Ahli** **%**	**Estithmar** **%**	**Muttahid** **%**	**E'timan** **%**	**Tijari** **%**	**Khaleej** **%**	**Sharq** **%**	**Mosul** **%**	**Baghdad** **%**	**Sumer** **%**
2010	1.06	3.62	6.42	1.38	0.24	2.27	1.49	5.50	1.42	0.41
2011	1.35	3.03	6.63	3.54	0.10	3.38	2.76	4.13	2.39	0.15
2012	4.57	0.36	7.48	6.80	0.47	7.26	2.96	3.44	1.93	0.51
2013	2.56	5.15	3.99	2.13	0.40	6.07	2.70	6.90	1.82	0.43
2014	1.15	5.17	3.63	2.19	0.44	4.43	0.53	0.52	1.52	0.47
2015	0.42-	3.17	3.41	1.88	0.87	1.22	0.80	0.09-	0.37	0.98
2016	4.05	1.76	0.20	0.97	0.89	0.73	1.97	0.86	1.69	1.07
2017	0.49	0.70	0.60	1.41	2.18	0.70	0.63-	1.20	0.56	0.10

2018	1.50	0.06	3.26	1.12	2.45	0.10	0.42-	0.63	0.37	0.22
2019	1.45	0.00	0.34-	0.98-	1.45	0.71-	0.01	0.83	0.64	0.29
2020	2.22	0.82	0.07	0.65-	5.75	0.00	0.32-	0.37	1.42	0.32
2021	1.43	0.14	0.24	1.05-	2.54	0.93-	0.05	0.48	0.00	0.31
2022	1.15	0.99	0.02	2.64	2.20	0.92-	0.00	0.69	0.00	0.32
2023	4.77	3.43	0.04	3.45	3.10	0.96	1.61	0.68	5.67	2.31-
Average	2.14	2.03	2.77	2.50	1.65	2.47	1.35	2.02	1.42	0.43

Source: Prepared by the researcher based on the financial reports of the sample banks for the period (2010-2023) and the output of Excel 365.

The data on the average return on assets for the sample banks indicate that there is a clear disparity in the performance of the banks in terms of their ability to achieve returns on their assets during the research period. The results showed that the Almuttahid Bank came first in terms of achieving the highest average return on assets This reflects its high efficiency in employing its resources and achieving stable profits, and gives a positive indication of the quality of its operational and financial management. E'timan Bank came second with a relatively high average , indicating that it enjoys acceptable efficiency in utilising its assets, followed by Al-Khaleej Bank, which also recorded good performance in the rate of return, while Al Ahli Bank recorded an acceptable average indicating an average performance that tends to be positive, followed by Estithmar Bank and Mosul Bank In contrast, Al Sharq and Baghdad banks recorded lower averages, which may indicate a relative weakness in their ability to achieve returns on their assets, perhaps due to high operational costs or low management efficiency, and AlTijari Bank showed modest performance compared to other banks, while Sumar Bank came last with the lowest average return on assets (0. 43%).This reflects a clear weakness in the use of assets to achieve profits, which could be a result of mismanagement or weakness in operational processes or even a decrease in the volume of activity compared to the rest of the banks, so these differences between banks reflect a difference in the efficiency of operational and administrative performance, and most of the factors affecting banks, the impact of the deteriorating security situation in the periods of decline, the increase in provisions to face bad debts and weak investments and also the decline during the pandemic period, and this requires banks to direct future policies towards improving returns and increasing the efficiency of resource utilization.

2- Return on Equity (ROE)

Return on Equity (ROE) is one of the most important financial indicators that reflect the bank's efficiency in achieving profits from shareholders' equity, this metric shows the extent to which the bank is able to achieve a satisfactory return for its shareholders compared to the amounts invested, which makes it an essential axis in evaluating banking performance and investment in the financial sector. ROE is also a critical factor in determining a bank's financial strength and the sustainability of its business, when the rate is high and stable, it indicates the bank's efficiency in achieving profits using its own resources without excessive reliance on external financing, but if it is low, this may be a result of poor profitability, high operational costs, or even increased risks associated with the investment portfolio, and the rate of return on equity can be calculated by the following formula:

ROE = (Net Profit ÷ Total Equity) x 100 ....(6)

The stability and improvement of this indicator over the long term reflects the bank's strong performance and its ability to create sustainable value for its shareholders, ensuring continued growth in a volatile and changing financial market. The ROE indicator can be represented in Table (7), which shows the ROE ratios for the sample banks for the period (2010-2023) as follows:

Table (7) Return on Equity Index for the sample banks

| Bank | Ahli % | Estithmar % | Muttahid % | E'timan % | Tijari % | Khaleej % | Sharq % | Mosul % | Baghdad % | Sumer % |
Year										
2010	2.55	10.06	21.85	6.06	0.52	9.71	10.26	15.88	11.51	0.65
2011	2.76	8.47	19.93	10.35	0.19	9.84	13.38	11.97	15.01	0.24
2012	11.76	1.17	17.99	13.07	0.97	20.70	12.93	7.31	12.11	0.87
2013	8.23	14.38	10.94	5.85	0.68	15.61	10.29	14.82	13.32	0.80

2014	3.40	10.18	6.83	4.63	0.69	10.45	1.17	0.45	11.23	0.89
2015	1.60	6.22	6.16	3.86	1.32	3.07	1.96	-0.13	2.40	1.15
2016	8.17	3.51	0.33	1.62	1.33	1.85	4.09	1.33	7.16	1.13
2017	1.04	1.41	-1.05	2.13	3.45	1.32	-0.22	1.81	2.21	0.15
2018	3.07	0.12	-5.53	1.79	3.83	0.19	-0.86	0.97	1.56	0.34
2019	3.57	0.01	-0.68	-1.72	2.40	-1.28	0.03	1.27	2.67	0.37
2020	6.47	1.76	0.15	-1.17	11.52	0.00	-0.79	0.54	7.25	0.41
2021	8.28	0.35	0.65	-1.71	4.14	-1.66	0.11	1.37	9.70	0.44
2022	8.33	2.62	0.05	3.59	3.58	-1.66	0.01	1.98	14.92	0.39
2023	38.00	10.35	0.07	6.11	4.75	1.71	-4.31	1.89	32.88	-2.68
Average	**7.66**	**5.04**	**5.55**	**3.89**	**2.81**	**4.99**	**3.43**	**4.39**	**10.28**	**0.37**

Source: Prepared by the researcher based on the financial reports of the sample banks for the period (2010-2023) and the outputs of Excel 365.

From Table (7), we observe a clear difference in the performance of these banks, reflecting their different operational efficiency and the level of risks they face. Baghdad Bank recorded the highest average return on equity (10.28%), indicating a high efficiency in using shareholders' equity to achieve profits, which reflects good performance and effective capital management. Al Ahli Bank followed with an average of (7.66%), indicating good and relatively stable returns over the years, while AlMuttahid Bank recorded a good average of (5.55%), reflecting an average performance compared to other banks, with some fluctuations in annual performance. Similarly, Estithmar Bank achieved a close average of (5.04%), indicating an acceptable level of profitability, despite low returns in some years, while Sumar Bank recorded the lowest average return on equity of (0.37%), which is an indication of a significant weakness in profitability and may indicate structural or managerial challenges affecting its overall performance. There are also other banks with low average ROEs such as Credit (3.89%), Gulf (4.99%), Mosul (4.39%) and Al Sharq (3.43%), reflecting fluctuations in their operational efficiency and profitability. Moreover, the periods that witnessed an escalation in security events in Iraq from 2015 to 2017 often coincided with a decrease in ROEs and negative values for some banks. This relationship indicates that the state of security instability negatively affects the economic and operational environment of the sample banks, which reduces their net profits. The impact of the COVID-19 pandemic, which started in 2020, is also reflected in fluctuations in banks' performance. Some banks were negatively affected by the economic slowdown and increased credit risk resulting from the pandemic in subsequent years or in the same year, which was reflected in their net profits and hence ROE, while others were able to maintain good profitability levels, reflecting the quality of their management and the robustness of their operational and financing strategies.

4.4. The relationship of the effect of the independent variable on the dependent variable and its hypotheses

The focus will be on reviewing the impact relationships between the independent variables (the determinants of internal profitability) on the dependent variables (the banking performance variable and its indicators) in a set of scenarios that will be reviewed later, through which the focus is on estimating the coefficients of the variables by employing the simple regression model and the multiple regression model, and through which the focus is on testing a number of hypotheses, Then testing the significance of the hypotheses of the effect of the studied variables through the use of (T) test and (F) test to clarify the suitability of the general model with the studied data, and the use of the coefficient of determination (R^2) and the adjusted coefficient of determination.

4.5. The main hypothesis of the research (There is no significant effect of internal profitability determinants on the financial performance of the sample banks)

The impact of the relationship between internal profitability determinants on banking performance can be measured through the use of a simple regression model

Table (8) Results of the regression coefficient between the internal profitability determinants variable and the banking performance variable

Sig	(F) Calculated	Banking performance			Dependent variable
		Sig	T Calculated	Estimated coefficients (β)	Independent variable
0.023	4571.	0.019	2.697	10.925	Fixed term
		0.043	3.811	0.165	Determinants of internal profitability
Corrected coefficient of determination $R^2 = 0.405$				Coefficient of determination $R^2 = 0.429$	

Source: Prepared by the researcher based on SPSS vr24.

Through the calculated F value (4.571) and the corresponding probability value of (0.023), which is a significant value under the significance level of 0.05, we conclude that the studied model between the determinants of internal profitability and banking performance, and therefore the model used is significant and fits the current research data significantly.

In addition, it is noted from the above table that the coefficient of determination (R^2) is (42.9%) and the corrected coefficient of determination is (40.5%), which shows that the interpretability of the simple regression equation is high, which indicates that (40.5%) of the changes that arise in the banking performance variable are due to the internal profitability determinants variable.

We find that the internal profitability determinants variable has a direct effect, meaning that when the internal profitability determinants increase by one unit, the banking performance index will increase by (0.165), and that this variable has a significant effect. This is evident from the (t) test for the beta value coefficient (B$_1$) (3.811) and its probability value of (0.043) and when compared, we find that this value is less than 0.05, which is evidence of the significance of the beta coefficient. Hence, our statistical decision will be to reject the hypothesis that "there is no statistically significant effect of the internal profitability determinants variable on the banking performance variable for the period (2010-2023)" and accept the hypothesis that "there is no statistically significant effect of the internal profitability determinants variable on the banking performance variable".

And accept the hypothesis that "There is a significant and statistically significant effect of the internal profitability determinants variable on the banking performance variable for the period (2010-2023)".

4.6. First main hypothesis: There is no significant effect of internal profitability determinants (capital adequacy, asset quality, management quality, and bank size) on the rate of return on assets.

The impact of the relationship of internal profitability determinants (capital adequacy, asset quality, management quality, bank size) on ROA can be measured through the use of a multiple regression model) through the use of a multiple regression model.

Table (9) The results of the regression coefficient between the internal profitability determinants variables and the ROA variable

Sig	(F) Calculated	Return on Assets (ROA)			Dependent variable
		Sig	T Calculated	Estimated coefficients (β)	Independent variable
0.000	12.361	0.454	0.780	26.711	Fixed term
		0.011	2794.	0.031	Capital Adequacy
		0.932	0.087-	0.001-	Asset quality
		0.919	0.104-	0.091-	Management quality
		0.031	3702.	0.113	Bank size

Corrected coefficient of determination R^2 = 0.473	Coefficient of determination R^2 = 0.512

Source: Prepared by the researcher using SPSS vr24

Through the calculated value of (F) (12.361) and the corresponding probability value of (0.000), which is a significant value under the significance level of 0.05, we conclude that the studied model between the variables of internal profitability determinants (capital adequacy, asset quality, management quality, bank size) and ROA variable is significant and fits the data available for the current research.

In addition, it is noted from the above table that the coefficient of determination (R^2) reached (51.2%) and the corrected coefficient of determination (47.3%). This shows that the interpretability of the multiple regression equation is rather high, which indicates that (47.3%) of the changes that arise in the rate of return on assets are due to the variables of internal profitability determinants (capital adequacy, asset quality, management quality, management quality, bank size).

We find that the capital adequacy variable has a direct effect meaning that when the capital adequacy increases by one unit, the rate of return on assets will increase by (0.031), and that this variable has a significant effect. This is evident from the (t) test for the beta value coefficient (B_1) (2.794) and its probability value of (0.011) and when compared, we find that this value is less than 005., which is evidence of the significance of the beta coefficient.

However, we note that the asset quality variable has an inverse effect, meaning that when the asset quality increases by one unit, the rate of return on assets will decrease by (0.001-), and that this variable has a non-significant effect. This is evident from the (t) test for the beta value coefficient (B_2) which reached (-0.087) and its probability value of (0.932) and when compared, we find that this value is much more than 0.05, which is evidence of the insignificance of the beta coefficient. This is due to the fact that the higher the asset quality ratio, the higher the non-performing loans to total loans, which reduces the return on loan principal with loan interest.

We also observe that the management quality variable has an inverse effect, meaning that when the management quality increases by one unit, the rate of return on assets will decrease by (0.091-), and this variable has a non-significant effect. This is evident from the (t) test for the beta value coefficient (B_3) (-0.087) and its probability value of (0.932) and when compared, we find that this value is much more than 0.05, which is evidence of the insignificance of the beta coefficient. This is because the higher the management quality ratio, the higher the operating costs and expenses of the bank, which affects the total profit and decreases as the expenses increase.

We find that the bank size variable has a direct impact, meaning that when the bank's size increases by one unit, the rate of return on assets will increase by (0.113), and this variable has a significant impact. This is evident from the (t) test for the beta value coefficient (B_4) (3.702) and its probability value of (0.031) and when compared, we find that this value is less than 005., which is evidence of the significance of the beta coefficient.

Therefore, our statistical decision will be in two directions:

The first direction

Reject the null hypothesis which states "There is no statistically significant effect of the internal profitability determinants (capital adequacy and bank size) on the rate of return on assets for the period (2010-2023)".

And accept the alternative hypothesis that states "There is a significant and statistically significant impact of the internal profitability determinants (capital adequacy and bank size) on the rate of return on assets for the period (2010-2023)".

The second trend

Accept the null hypothesis that states "There is no statistically significant effect of the internal profitability determinants (asset quality and management quality) on the rate of return on assets for the period (2010-2023)".

The alternative hypothesis that states "There is a statistically significant impact of the internal profitability determinants (asset quality and management quality) on the rate of return on assets for the period (2010-2023)" is rejected.

4.7 Second main hypothesis: There is no significant effect of internal profitability determinants (capital adequacy, asset quality, management quality and bank size) on the rate of return on equity.

The impact of the relationship of internal profitability determinants (capital adequacy, asset quality, management quality, bank size) on ROE can be measured through the use of multiple regression model:

Table (10) The results of the regression coefficient between the internal profitability determinants variables and the ROE variable

Sig	(F) Calculated	Return on Equity (ROE)			Dependent variable
		Sig	T Calculated	Estimated coefficients (β)	Independent variable
0.000	10.124	0.397	0.8884	95.867	Fixed term
		0.006	2.883	0.017	Capital Adequacy
		0.650	0.468-	0.025-	Asset quality
		0.620	0.512-	1.424-	Management quality
		0.000	6.766	0.203	Bank size
Corrected coefficient of determination R^2= 0.504		Coefficient of determination R^2= 0.526			

Source: Prepared by the researcher based on SPSS vr24.

Through the calculated value of (F) (10.124) and the corresponding probability value of (0.000) which is a significant value under the significance level of 0.05, we conclude that the studied model between the variables of internal profitability determinants (capital adequacy, asset quality, management quality, bank size) and the variable of return on equity, we observe that this model is significant and fits the data available for the current research. In addition, it is noted from the above table that the coefficient of determination (R^2) reached (52.6%) and the corrected coefficient of determination (50.4%), which shows that the explanatory power of the multiple regression equation is rather high, which indicates that (50.4%) of the changes that arise in the ROE variable are due to the internal profitability determinants.

We find that the capital adequacy variable has a direct effect, meaning that when the capital adequacy increases by one unit, the ROE variable will increase by (0.017), and that this variable has a significant effect. This is evident from the (t) test for the beta value coefficient (B_1) (2.883) and its probability value of (0.006) and when compared, we find that this value is less than 0.05, which is evidence of the significance of the beta coefficient.

However, we note that the asset quality variable has an inverse effect, meaning that when the asset quality increases by one unit, the return on equity variable will decrease by (0.025-), and that this variable has a non-significant effect. This is evident from the (t) test for the beta value coefficient (B_2) (-0.468) and its probability value of (0.650) and when compared, we find that this value is much more than 005., which is evidence of the insignificance of the beta coefficient.

We also observe that the management quality variable has an inverse effect, meaning that when the management quality increases by one unit, the return on equity variable will decrease by (1.424-), and this variable has a non-significant effect. This is evident from the (t) test for the beta value coefficient (B_3) which reached (-0.512) and its probability value of (0.620) and when compared, we find that this value is much more than 0.05, which is evidence of the insignificance of the beta coefficient.

We find that the bank size variable has a direct effect, meaning that when the bank size increases by one unit, the variable indicator of the rate of return on equity will increase by (0.203), and that this variable has a significant effect. This is evident from the (t) test for the beta value coefficient (B_4) (6.766) and its probability value of (0.000) and when compared, we find that this value is less than 0.05, which is evidence of the significance of the beta coefficient.

Hence, our statistical decision will be in two directions:

The first direction

Reject the null hypothesis that states "There is no statistically significant effect of the internal profitability determinants (capital adequacy, bank size) on the variable of the rate of return on equity for the period (2010-2023)". And accept the alternative hypothesis that states "There is a significant and statistically significant effect of the internal profitability determinants (capital adequacy, bank size) on the ROE variable for the period (2010-2023)".

The second direction

Accept the null hypothesis that states "There is no statistically significant effect of the internal profitability determinants (asset quality and management quality) on the return on equity variable for the period (2010-2023)".

The alternative hypothesis that states "There is a significant and statistically significant impact of the internal profitability determinants (asset quality and management quality) on the ROE variable for the period (2010-2023)" is rejected.

5. The Fourth Section

5.1. Conclusions and recommendations

5.2. Conclusions

A set of conclusions were reached as follows:

1. The results showed that the internal profitability determinants variable has a direct effect, meaning that when the internal profitability determinants increase by one unit, the banking performance index will increase by (0.165), and that this variable has a significant effect.

2. We find that the two variables capital adequacy and bank size have a direct effect on the rate of return on assets and that the two variables have a significant effect.

3. We observe that the variables asset quality and management quality have an inverse effect, meaning that when asset quality and management quality increase, the ROA index will decrease and this variable has an insignificant effect.

5.3. Recommendations

A set of recommendations are formulated as follows:

1. The researcher recommends that banks should not hold excessive capital in excess of their needs, taking into account the potential risks.

2. It is necessary to minimize the size of non-performing loans to the maximum extent possible, as it has a negative impact on the profitability and performance of banks.

3. Granting loans through a diversification strategy that takes into account the return and risk of the investment.

4. Commercial banks should minimize unnecessary operating expenses and reduce provisions as they negatively affect the profitability of banks.

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