Academic Journal of International University of Erbil

Journal Homepage: https://ue.edu.krd/ojs/index.php/public

PRINT-ISSN: 2519-6928

The Effect of Liquidity Risk Management on the Bank Performance: Evidence from Iraqi banks

Sozyar Adil Abdullah[1], Sumaia Sadiq Ali[2], Naji Afrasyaw Fatah[3]

[1,2,3] Sulaimani Polytechnic University, Technical College of Administration, Sulaymaniyah, IRAQ

*Corresponding Author: Naji Afrasyaw Fatah

Received 19 Dec 2024; Accepted 04 Jan 2025; Available online Apr 2025

ABSTRACT:
The main objective of this paper is to study the effect of liquidity risk management on the profitability of commercial banks in Iraq during the time period (2020-2021). A descriptive survey design was adopted. The target is 4 private commercial banks listed on Iraqi Stock Exchange operating in Sulaymaniyah City. The liquidity indicator is the Liquidity Ratio while return on assets (ROA) were the proxy for profitability. Therefore, the dependent variable is bank performance which is measured by return on asset (ROA) and the independent variable is the Liquidity Ratio.
The empirical results, show that an increase in the liquidity ratio of leads to an increase in profitability. Furthermore, the findings illustrate that liquidity risk has a positive significant association with bank profitability.
The researchers recommend, that there is a need for optimum utilization of the available liquidity in various aspects of investment in order to increase the banks' profitability, and banks should adopt a general framework of liquidity management to assure sufficient liquidity for executing their operations more efficiently, and they should initiate an analytical study of the evolution rates of liquidity and their ability to achieve a balance between sources and uses of funds.
Keywords: Liquidity, Bank performance, ROA, and Sulaymaniyah city.

1. INTRODUCTION

The commercial bank's liquidity reflects its capacity to meet its contractual obligations, such as those involving lending and investment commitments, withdrawals, deposits, and accumulated liabilities, when they are due. Based on the notion of liquidity, there are two different approaches to managing liquidity. The ability to exchange an item, like a stock or bond, at its current price is one sort of liquidity. Large businesses like financial institutions fall within the umbrella of the second concept of liquidity. Banks are frequently judged on their liquidity, or their capacity to fulfill their obligations for cash and collateral without suffering substantial losses. Liquidity management refers to either an investor's or manager's endeavor to lessen the exposure to liquidity risk [1]. Additionally, the idea of liquidity management is seriously gaining attention globally, especially given the current financial crises and the state of the global economy. Some of the most notable corporate goals, such as the requirement to maximize profit and maintain a high level of liquidity in order to guarantee safety, are accomplished in conjunction with the achievement of other corporate goals in order to reach the highest level of owner's net worth. The significance of liquidity management for corporate success in today's economy cannot be overstated, according to researchers in order to guarantee that working capital runs smoothly and fulfills its obligations, it is crucial to maintain its liquidity in day-to-day operations [2]. Liquidity danger for banks arises from a mismatch among the call for and the supply of finances. The supply of budget comes from client deposits, repayments of credit score centers, borrowing from monetary markets, hobby and non-hobby income and income of banks' property. On the alternative hand, demand for budget comes from client withdrawals, demand for credit score, hobby and non-hobby charges. The distinction between the supply and call for of budget is known as "the internet liquidity role", which banks should carefully control so as to lessen their liquidity danger [3]. For a range of things, the Iraqi banking enterprise turned into selected. To start with, there are few conversations and insights within the Iraqi banking enterprise. Second, in current years, Iraq has skilled most important economic reforms and deregulation. Third, the private region is taken into consideration inclined because of a range of things that bring about financial institution

 *Corresponding author: naji.afrasyaw@spu.edu.iq

lending barriers [4], which have a knock-on effect of financial swings in the area. [5]. Henceforth, policymakers and regulators can use the exam of the influence of risk management on bank overall performance to assist them take steps to stabilize the monetary situation.

1.2 RESEARCH PROBLEM

During the most recent recession, bank losses exceeded the minimum capital requirement because of financial risk [6]. The Basel Committee revised the Regulation as a result, placing more emphasis on risk value and adding an extra risk capital charge. In Iraq, various analysts looked at the relationship between financial risk and the financial outcomes of commercial banks during a five-year cycle and discovered that profitability was significantly impacted negatively by credit risk, interest rate risk, foreign currency risk, and liquidity risk [7].

For a variety of factors, the Iraqi banking industry was chosen. To begin with, there are few conversations and insights into the Iraqi banking industry. Second, in recent years, Iraq has experienced major financial reforms and deregulation. Third, the private sector is considered susceptible due to a variety of factors that result in bank lending limitations, which have a knock-on impact of financial swings in the region.

1.3 OBJECTIVES OF THE STUDY

Through this research, the researchers seek to, the think about centers on the impact of liquidity chance administration on the money related execution of Iraqi banks. In light of the prior, the taking after issue is raised Does liquidity chance administration influence the budgetary execution of Iraq banks? occupies an extraordinary position at display. The money related execution decides the bank’s effectiveness and the degree to which it accomplishes its destinations. Additionally, through it, it uncovers the preferences and impediments of execution amid a particular period and analyzes its causes. These are solidifying the positive angles and overcoming the negatives. Too, contributing to raising the level of execution within the future.

2. LITERATURE REVIEW

One of the most crucial challenges for commercial banks is that of liquidity risk.in terms of money. This relates to banks' resources and indicates effective economic management working to stabilize the bank's financial condition. Reconciling the bank's goals of profitability, liquidity, and security is a challenge for commercial banks, and work has been concentrated on maintaining a minimal level of liquidity in order to achieve some sort of harmony between these goals. Commercial banks may experience losses because liquidity is one of the key pillars supporting their activities and could have a direct impact on them. Due to a lack of liquidity, the bank lacks the resources or capacity to fulfill timely debit requests from its customers. On the other hand, the bank might keep greater liquidity. The literature on the financial hazards present in the banking industry is discussed in this section. It examines the fundamental concepts that underlie bank risk, offers a philosophical foundation, and finds gaps in the literature regarding how financial risk affects the financial output of banks in Iraq.

2.1 LIQUIDITY RISK

Bank liquidity risk arises from funding long-term assets with short-term liabilities. This exposes the liability to rollover or refinancing risk. Liquidity risk is generally individual in nature, but certain circumstances can put the liquidity of the financial system at risk. Liquidity risk management in banks is defined as the risk of being unable to meet obligations to depositors or fund asset growth when it comes due without incurring unacceptable costs or losses [8]. The capacity to pay debts when they are due as well as the capacity to finance asset growth without suffering unacceptably high losses. In order to meet needs, whether regular or extraordinary, banks must be able to deliver cash, either directly or indirectly, at a rate and in a timely manner. This is referred to as banking liquidity. A number of people have defined banking liquidity. Using academics as a tool to gauge the bank's negotiating strength the proportion of total resources to cash liabilities [3]. How much of the bank's financial assets can be quickly turned into cash at a price that is equal to or close to market value. The ease with which financial instruments can be traded for money without significant risk is reflected in their liquidity. Market liquidity is a related idea that is defined as the market's capacity to trade a certain volume of assets or securities without significantly altering their prices. Monetary liquidity, on the other hand, refers to the amount of completely liquid assets that are in circulation in the economy. A narrow or wide monetary aggregate or its ratio to nominal GDP are typically used to measure it. The ease with which financial products can be swapped for cash without losing value is reflected in their liquidity. (Andrew Crockett, Financial Stability Review, this issue.) The ability of the market to exchange a specific volume of assets or securities without significantly altering their pricing is referred to as market liquidity. (See Adrian and Shin in the current Financial Stability Review issue.) Last but not least, monetary liquidity refers to the amount of fully liquid assets that are in circulation in the economy. A narrow or wide monetary aggregate or its ratio to nominal GDP are typically used to measure it. Remarks at the Euro50-Natixis breakfast seminar, Washington, DC, October 21, 2007.

The risk of not being able to realize the full value of an asset at the moment a sale is wanted is known as liquidity risk. Liquidity risk affects borrowers and lenders equally. For lenders, it potentially prevents them from selling a loan or borrowing money against it for the full amount of the anticipated repayments. From the standpoint of the borrower, the worry of not getting financing or of securing a loan with restrictive terms drives up the cost of financing. When a lender anticipates that a random liquidity shock will occur with a high probability and that it won't be able to sell the loan at full value in that scenario, it will price the loan so that the anticipated cost related.

Liquidity is a term that appears from many different economic angles. The ease of selling a security and obtaining funding to trade a security are two ways that liquidity can be characterized. Market liquidity is the first, and liquidity financing is the later [9]. The ability of the bank to finance its operations and meet its commitments on schedule and within an acceptable budget is the main concern of liquidity risk management for banks. Additionally, it refers to the long- and short-term compatibility of financial reserves with the use of diverse assets [10]. For this, it is necessary to examine, on the one hand, the type of deposits held by the bank, their pattern of cost, the return generated from using those deposits in other investments, and the sufficiency of that return to cover the cost of deposits. The ability of a bank to meet its financial obligations on time is known as bank liquidity. The ability of a commercial bank to fund all of its contractual commitments, including the lending, investing, and withdrawing of deposits as well as the maturity of liabilities in the regular course of banking activities, is implied by the term "liquidity" [11]. Liquidity risk is the current or potential risk associated with an entity's inability to meet its obligations. The liquidity management and profitability of commercial banks in Nigeria. The primary objective of this study is to provide empirical evidence on how effective liquidity management affects commercial banks' liab Liquidity dangers may too be respected as a monetary threat coming about from the failure of a sort to satisfy its commitments or to get certain financing as it were at a preposterous cost [12]. When investors wish to pull back their investment funds, the liquidity issue happens, but the bank does not have sufficient reserves. In this circumstance, banks who occasionally track and handle resource- and liability side lopsided characteristics may confront liquidity and dissolvability challenges. Liquidity chance administration 's needs are to ensure that bonds are fulfilled in full and on plan which the Bank oversees to meet its stores, medium-term commitments and money related destinations. Typically, commonly called the liquidity chance of subsidizing. There's a commerce measurement of liquidity hazard getting to be more noteworthy in later along time, whereas extraordinary reliance on financing teach exists. Liquidity chance is the one that emerges from the failure of a bank to fulfill its commitments when they are due without bringing about unsatisfactory misfortunes. As investors may call their stores at inappropriate times, activating the offering of resources by fire incorporates negative impact on the bank's benefit [13]. Liquidity administration alludes tithe planning and control required to guarantee that the company holds satisfactory fluid resources either as an commitment to fulfill the coincidental lenders' request or as a degree to apply the prerequisites of the money related specialists [14]. profitability positions. was to find to meet the objectives of the study, some insights were derived from an executive questionnaire of both structured and unstructured banks and an analysis of the financial reports of a sample of banks. Taking after past money related emergencies, liquidity defenselessness has gotten a parcel of intrigued from both examiners and helplessness professionals. The plausibility of liquidity will stun a bank and can to start a bank run. The threat stems from the managing an account definition [15]. It'll contrarily affect the banks add up to assets and pay. If the bank isn't well run, it may have noteworthy repercussions. The banks and administrative bodies are continually alarm to budgetary institutions' liquidity positions. Liquidity threat is the display and threat to benefits or assets coming about from bank's disappointment to fulfill its risk without undue misfortunes. Failure to handle future misfortunes or shifts in financing streams postures liquidity chance. Liquidity hazard is due to a missed acknowledgment of shifts in showcase conditions which haven impact on the capacity to quickly exchange resources with negligible misfortunes [16].

2.2 FINANCIAL PERFORMANCE

Financial performance is a set of metrics used to evaluate the health of banks in the banking industry, including some type of risk assessment. It is used as a crucial internal performance metric for every bank entity. Indicators of client interactions and the quality of a bank's relationships with other financial institutions can be included in its financial performance, which is not restricted to quantitative metrics [17]. The calculation of financial output is typically based on corporate profitability, which is determined by an asset ratio (RP), the relationship between gross income and total assets, an equity return (ROE), the comparison of total revenues with total equity, the net profit margin (NPM), and the remaining share of sales after deductions from salt investments have been made. Return on Asset (ROA) and Return on Equity (ROE) are two common financial metrics. ROA serves as an example of how a bank effectively uses its resources to generate profits. It is the income generated by a percentage for each asset's unit. The issue with ROA is that it excludes the quantity of off-balance sheet assets from the total amount of assets. In the end, this circumstance will create a favorable bias where the ROA is exaggerated in the calculation of bank production.

The aim of this study was to determine the effect of liquidity risk management on the financial performance of Commercial Banks in Kenya. The study adopted a descriptive study design. The population for this research is 43 listed Commercial Banks in Kenya analyzed for a period from 2010-2013.The results of the study show that a unit increase in liquid assets to total assets ratio decreases return on assets by 1%. A unit increase in liquid assets to total deposits ratio decreases return on assets by 2.2%. A unit increase in borrowings from banks decreases return on assets by 14.2%. Finally, the control variable which was asset quality shows that a unit increase in non-performing loans as a proportion of total loans would lead to a 12.4% decrease in return on assets. The study concludes that liquidity risk management has

a significant negative relationship with financial performance of commercial banks. Liquidity threats may also be regarded as a financial danger resulting from the inability of a type to fulfil its commitments or to obtain certain financing only at an unreasonable expense. When depositors wish to withdraw their savings, the liquidity issue occurs, but the bank does not have enough funds. In this situation, banks who periodically track and handle asset- and liability-side imbalances may face liquidity and solvency challenges [12]. Liquidity risk management 's priorities are to guarantee that bonds are satisfied in full and on schedule and that the Bank manages to meet its deposits, medium-term commitments and financial objectives. The main objective of liquidity management is to make sure that a bank's cash inflows and outflows match up. This equilibrium, if maintained across all banks, encourages the growth of a strong and stable banking industry, which is a requirement for the effective implementation of banking intermediation. The goals of managing bank liquidity can be summed up as follows: Meeting all ongoing, regular cash outflow responsibilities (both on- and off-balance sheet), avoiding the acquisition of funds at market premiums or through the forced sale of assets, adhering to the prescribed liquidity needs, and maintaining the statutory reserve requirements. Financial ratios based on the financial statements of banks are typically used to assess the liquidity risk. The bank's liquid assets are assessed using the cash to Total Assets Ratio. The bank's profitability decreases when this ratio rises, indicating that there are untapped cash holdings [10]. The bank is exposed to numerous dangers as a result of this ratio's decline from its standard rates, and it will be more vulnerable to unexpected withdrawals. Due to the rise in cash balances, bank investments, and their ratio to total assets, which enables the bank to meet its various obligations, the total cash and short-term investments to total assets ratio shows a reduction in the bank's liquidity risk. The primary objective of this study is to provide empirical evidence on how effective liquidity management affects commercial banks' profitability and how commercial banks can improve their liquidity and profitability positions. was to find to meet the objectives of the study, some insights were derived from an executive questionnaire of both structured and unstructured banks and an analysis of the financial reports of a sample of banks. Diamond and Dybvig [18] argued that deposits contracts result in liquidity demands that may cause financial institution runs. Consequently, this might result in real financial damage. in a comparative analysis at some point of the duration (2006-2009) counseled that credit danger reduces the stableness of banks within the MENA area. Using a degree of default distance and Z-score, their consequences confirmed that credit score danger and profits range are the most commonplace motive of insolvency for banks. Credit risk measured with the aid of the ratio of mortgage loss provisions to internet interest profits, decreases Z-score in small banks in MENA nations. Abdullah, et al., [19] Investigated the connection between liquidity and credit chance in traditional banks, based on a sample of US banks throughout the period from 1998 to 2010. The research identified that each liquidity and credit hazard have an enormous effect on financial institution default possibility. They additionally discovered that despite no direct courting among liquidity and credit score danger, the interplay of the two types of chance will increase the chance of financial institution default.
As banks are a business of money, liquidity risk is faced by the banks due to availability of liquid assets and cash to run their operations. Money, in the form of liquid assets and pure purchasing power, is necessary to finance expenditures and as a cushion for any future uncertainty. However, when it comes to banking sector, high liquid assets in the form of cash mean low returns and increased opportunity costs for holding money. So, if not otherwise mandated by the regulatory authority, banks may not keep a lot of liquid cash. However, another reason to hold cash is that it ensures stability of the financial system (2018) Using panel data analysis for the period 2005-2015. Zaghdoudi [20] examined the impact of credit score chance, liquidity hazard, and operational hazard on Tunisian traditional bank stability proxied by each Zscore (ROA) and Z-rating (ROE). Empirical consequences display that the credit score hazard threatens the stability of Tunisian banks while the latter is measured by way of Z-score (ROA). The interplay of each credit score and liquidity dangers worsens also their stability. Bank monetary performance isn't always constrained to quantitative measures and can encompass signs of consumer members of the family and the nice of its relationships with different monetary establishments [17].

2.3 Hypothesis Development and Conceptual Framework

Thus, to investigate the objectives of the research, the following hypotheses will be developing:

H0: There is no statistically significant relation between Liquidity Risk Management and Bank Performance

H1: There is statistically significant relation between Liquidity Risk Management and Bank Performance

FIGURE 1. **Conceptual Framework**

3 METHODOLOGY

This section highlights the steps that the researcher took with regards to the collection of data, determining the participants for the study. This research applies the quantitative approaches and ratios analysis to investigate the impact of liquidity management on banks' profitability during the time period (2020-2021), and that includes ratio analysis of the profitability and liquidity indicators.

3.1 RESEARCH DATA

This research project seeks at investigating the impact of liquidity management on profitability in the (4) Iraqi commercial banks during the time period (2020–2021) including (Mansour, Erbil, Istismar, and Al-Taif) that the researchers were questioned. By applying the data issued by Iraq Stock Exchange about the Iraqi commercial banks as a panel-type study.

3.2 RESEARCH MODEL

The following two models represent the research model:

Y = b0 + b1x1

Where:

Y: represents the bank’s profitability measured by ROA

X1: Liquidity ratio = Current assets / Current liabilities

3.3 Variables Definition

The liquidity management (the independent variable) has been measured by the following ratios:

Liquidity ratio = Current assets / Current liabilities

The banks' profitability (the dependent variable) has been measured by the Return on Assets (ROA).

3.4 DATA ANALYSIS

The analysis output showed that some liquidity indicators affect positively the profitability of these banks. The influence of liquidity risk on bank performance was investigated to strengthen the study's findings. Figure (1) illustrates that the there is an association amongst the dependent variable ROA and the of independent variable (liquidity risk). Hence, liquidity management affects profitability (bank performance) in commercial banks.

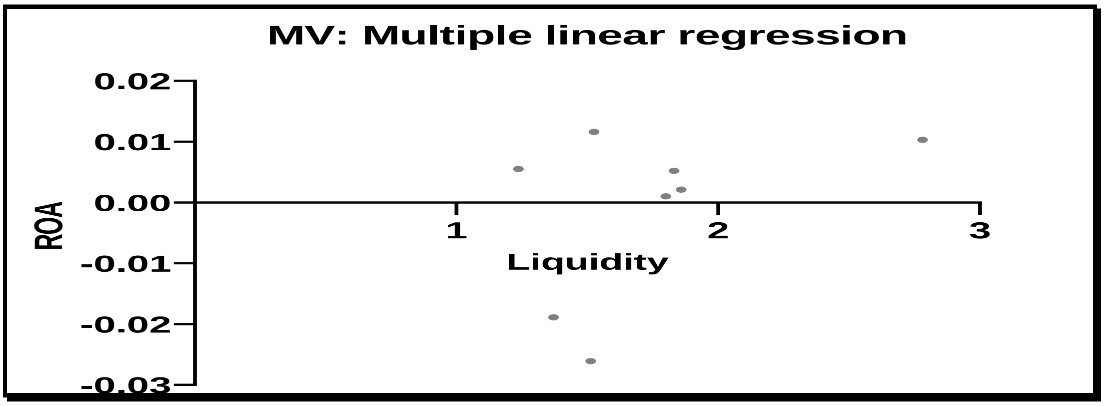

FIGURE 2. Multiple linear regression

3.5 DESCRIPTIVE STATISTICS

The descriptive statistics of the independent variables and the dependent variable used in this research are illustrated in following tables. The dependent variable is return on asset. However, the independent variable is liquidity. Table (1) show that there is high percentage of ROA in Investment Bank of Iraq when the liquidity is in high volume by 1.8308 on 2020.

Table 1. Investment Bank of Iraq

Data	2021	2020	Liquidity 2021	Liquidity 2020
Cash on hand	17,345,473,074	80,645,292,468	1.7994	1.8308
Cash with the central bank and other banks	305,322,345,787	277,055,399,309	**ROA 2021**	**ROA 2020**
Deposits	100,466,559,721	27,578,814,168	0.0010	0.0052
Current assets	631,519,064,190	549,074,473,200		
Current liabilities	350,952,535,990	299,902,883,483		
Investments (loans and advances)	269,346,290,460	185,254,818,846		
Net income	922,599,195	4,673,583,718		
Number of shares	250,000,000,000	250,000,000,000		

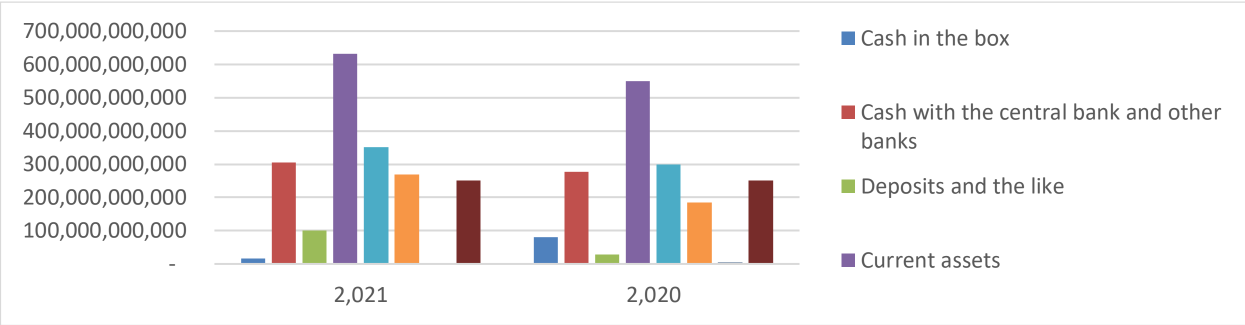

FIGURE 3. Investment Bank of Iraq

Table 2. Erbil bank

Data	2021	2020	Liquidity 2021	Liquidity 2020
Cash in the box	20,085,737	35,706,383	1.3702	1.5123
Cash with the central bank and other banks	207,215,387	261,120,474	**ROA 2021**	**ROA 2020**
Deposits and the like	100,057,246	134,695,960	- 0.0189	- 0.0261
Current assets	228,090,598	297,616,331		
Current liabilities	166,466,849	196,795,577		
Net income	(8,893,217)	(13,382,047)		
Total assets	**469,848,588**	**512,254,264**		

Table 2 shows that there is high percentage of ROA in Erbil Bank when the liquidity decreased from 1.5123 to 1.3702 by 2020 to 2021.

Table 3. Mansor bank

Data	2021	2020	Liquidity 2021	Liquidity 2020
Cash in the box	36,673,316,442	30,642,111,401	1.5251	1.2362
Cash with the central bank and other banks	424,122,747,702	1,090,052,022,455	**ROA 2021**	**ROA 2020**
Deposits and the like	384,225,441,860	952,385,779,228	0.0116	0.0055
Current assets	**583,026,330,261**	**1,193,828,073,628**		
Current liabilities	**382,293,981,523**	**965,702,291,171**		
Net income	8,117,891,662	7,005,133,190		
Total assets	**697,917,429,555**	**1,278,867,996,930**		

Table 3 shows that there is high percentage of ROA in Mansor Bank when the liquidity increased from 1.2362 to 1.5251 by 2020 to 2021.

Table 4. Altaif bank

Data	2021	2020	Liquidity 2021	Liquidity 2020
Cash in the box	106,477,548	86,590,028	1.8581	2.7803
Cash with the central bank and other banks	213,706,483	197,172,210	**ROA 2021**	**ROA 2020**
Deposits and the like	182,563,602	77,163,790	0.0021	0.0103
Current assets	366,767,337	215,282,870		
Current liabilities	197,383,262	77,432,290		
Net income	858,918	2,517,863		
Total assets	**414,364,510**	**243,360,105**		

Table 4 shows that there is low percentage of ROA in Altaif Bank when the liquidity decreased from 2.7803 to 1.8581 by 2020 to 2021.

4. DISCUSSION OF FINDINGS

CONCLUSIONS

The purpose of this research was to investigate the effect of banking liquidity management on profitability in the Iraqi commercial banks, through identifying the indicators of banking liquidity and profitability during the time period (2020–2021). The results of data analysis show that there is direct relationship between liquidity and bank performance in research sample, as data from 2020-2021 shown when the liquidity increased the profitability increased, except Erbil bank case.

The major aims of this research were to find empirical evidence of the degree to which effective liquidity management affects profitability {bank performance} in commercial banks and how commercial banks can enhance their liquidity and profitability {bank performance} positions. Based on the research findings, the researchers concluded that, there is an effect of the liquidity management on profitability in Iraqi commercial banks as measured by ROA. Thus, a bank needs to maintain adequate liquidity, which greatly affects profits.

However, the results indicate, that the high rates of liquidity indicators give a clear picture of the low levels of risk in commercial banks. Hence, the study proved the validity of the hypothesis and accepted alternative hypothesis. Therefore, there is statistically significant between Liquidity Risk Management and Bank Performance.

SUGGESTIONS

Consequently, the researchers recommend that there is a need to invest the excess liquidity available at the banks, in various aspects of investments in order to increase the banks' profitability and to get benefits from the time value of the available money, also the Iraqi commercial banks should adopt a general framework for liquidity management to assure sufficient liquidity for executing their works efficiently, and there is a need to make an analytical study of the liquidity evolution rates to assess the banks' ability to achieve a balance between sources and uses of funds, the banks need to adopt of scientific methods in detection of the strengths and weaknesses points of liquidity, especially in light of the sudden circumstances that may be exposed by banks.

In order to advance the banking reality in Iraq and keep abreast of recent developments in the global arena in the banking sector and in light of the fiercely competitive environment within this sector, the researchers recommend commercial banks that the necessity of adopting liquidity indicators in judging risk and analyzing it due to its importance in neutralizing levels of safety to avoid risk. Likewise, Iraqi banks should focus on harmonizing the ratios of liquidity and profitability as a serious attempt to employ and invest money and work to develop risk management and thus achieve the goal of safety.

REFERENCES

[1] A. Alshatti, "The effect of the liquidity management on profitability in the Jordanian commercial banks," Int. J. Bus. Manag., vol. 10, no. 1, pp. 62-71, 2015.

[2] M. A. Eljelli, "Liquidity-profitability tradeoff: An empirical investigation in emerging market," Int. J. Manag., vol. 14, no. 2, 2004.

[3] P. Rose and S. Hudgins, "Bank Management and Financial Services," 9th ed. Singapore: McGraw Hill, 2013.

[4] N. A. Fatah, H. A. Hamad, and K. S. Qader, "The role of internal audit on financial performance under IIA standards: A survey study of selected Iraqi banks," Qalaai Zanist Journal, vol. 6, no. 2, pp. 1028-1048, 2021.

[5] H. M. Jadah, M. H. Alghanimi, N. S. Al-Dahaan, and N. H. Al-Husainy, "Internal and external determinants of Iraqi banks profitability," Banks Bank Syst., vol. 15, no. 2, pp. 79-93, 2020.

[6] N. A. Fatah, G. M. D. Omer, H. A. Bayz, L. E. Karem, K. H. Ahmad, W. O. Mustafa, et. al., "Conceptualization of the capital maintenance". British Journal of Interdisciplinary Research, vol. 2, no. 3, pp. 134-148, 2025.

[7] H. Abdullah, and N. Fatah,"The effect of the COVID-19 pandemic on capital stock gains: evidence of large stock exchanges". In Third scientific international conference of Al-Mustansiriyah University, Baghdad, pp. 427-445), 2020.

[8] N. A. Fatah, K. A. AbdulRahman, and F. P. Ali, "The Effects of Money Laundering on The Performance of Banks: An Analytical Study of a Sample of Iraqi Banks," International Journal of Scientific Research and Technology, vol. 2, no. 3, pp. 1-9, 2025.

[9] M. Godfrey, "Liquidity and bank performance," Int. Bus. Econ. Res. J., vol. 14, no. 3, pp. 453-462, 2015.

[10] N. A. Fatah, "Factors affecting customers' decision for taking out bank loans: A case of Sulaymaniyah city commercial banks," M.S. thesis, Near East University, 2018.

[11] U. Md Reaz, M. A. R. Syed, and D. Saurav, "Liquidity risk and performance: A study on the banking sector of Bangladesh," Bus. Rev. J. Bus. Admin. Discipline, vol. 11, no. 182, pp. 35-42, 2016.

[12] K. Zidan, "Impact of liquidity management on the profitability of banks operate in Palestine," Int. J. Bus. Soc. Sci., vol. 11, no. 1, pp. 12-17, 2020.

[13] B. Erika and M.-K. Raimonda, "Liquidity risk and its management in Lithuanian banking system," Mokslas–Lietuvos ateitis/Science–Future of Lithuania, pp. 64-71, 2014.

[14] A. Olagunju, O. D. Adeyanju, and O. S. Olabode, "Liquidity management and commercial banks' profitability in Nigeria," Res. J. Finance Accounting, vol. 2, no. 7/8, pp. 24-39, 2011.

[15] A. Arif and A. Anees, “Liquidity risk and performance of banking system,” J. Financial Regul. Compliance, vol. 20, no. 2, pp. 182-195, 2012.

[16] M. Ramzan and M. I. Zafar, “Liquidity risk management in Islamic banks: A study of Islamic banks of Pakistan,” Interdiscip. J. Contemp. Res. Bus., vol. 5, no. 12, pp. 199-215, 2014.

[17] A. Golovkova, J. Eklof, A. Malova, and O. Podkorytova, “Customer satisfaction index and financial performance: A European cross-country study,” Int. J. Bank Mark., vol. 37, no. 2, pp. 479-491, 2019.

[18] D. Diamond and R. Rajan, “Liquidity risk, liquidity creation, and financial fragility: A theory of banking,” J. Political Economy, vol.109, no.2, pp.287-327,2001 [Online]. Available: http://www.jstor.org/stable/10.1086/319552?seq=1#page_scan_tab_contents

[19] H. A. Abdullah, H. G. Awrahman, and H. A. Omer, "Effect of working capital management on the financial performance of banks: An empirical analysis for banks listed on the Iraq stock exchange," Qalaai Zanist Journal, vol. 6, no. 1, pp. 429-456, 2021.

[20] K. Zaghdoudi, "The effects of risks on the stability of Tunisian conventional banks," Asian Econ. Financial Rev., vol. 9, no. 3, pp. 389-401, 2019.