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The impact of the quality of banking assets on operating cash flows: An applied study of a sample of banks listed on the Iraq Stock Exchange

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Abstract:

This research aims to diagnose the impact of the quality of bank assets from loans and credit loans on cash flows generated from operating activities by studying a sample of commercial banks listed on the Iraq Stock Exchange for a period of 10 years from 2010 to 2019. The research used the descriptive analytical approach based on the SPSS statistical program by measuring the strength of the correlation between the study variables by simple linear regression and continuity of chains. The problem of the research was whether cash flows through operating activities are affected by the quality of bank assets? The research found that there is a positive moral impact between the quality of assets and cash flows. The quality of assets is a good indicator of the predictability of future cash flows as a result of the direct relationship and the positive impact between them. This encourages banks to focus on achieving the quality of assets with the aim of obtaining cash flows from their operating activities. The research recommends the need to reduce the proportion of non-performing loans through credit undertakings and by managing the potential risks of bank loans and other assets while at the same time adopting sustainability policies that achieve high profitability ratios and thus high cash flows.

Keywords: Bank asset quality, credit loans, operating cash flows, commercial banks, Iraq Stock Exchange, non-performing loans, financial sustainability.

Introduction

The banking system contributes to the bulk of the growth of the economy, and this growth depends on the correct practices adopted by banks. The best indicator to test the health practices of banks is the quality of assets, as loans are the largest assets operating in banks and are one of the main concerns of banks over the years, and the proportion of non-performing loans is one of the most worrying issues in the banking sector. Identifying new loan sources as well as monitoring is key to improving asset quality and not only has the bank established high level standards for new customers, it also includes being funded on a cash flow basis. Therefore, the central bank has the independence to develop policies and procedures to control, but the question is how the central bank can solve these major issues that occur in all banking sectors, i.e., government, commercial and foreign banks. Thus, an attempt was made to study the performance of banks in the field of the quality of banking assets and to propose measures for banks to control economic decision-making and the ability of economic actors to predict the financial situation of the bank's future need before making economic decisions. Information is provided to see if the future conditions of the bank have good or bad expectations and that the development of the bank The financial situation can be seen from its performance, the better the bank's performance, and the status of the bank can be seen from its operating cash flow. Operating cash flow volatility is the value of cash flows that experience changes either increase or decrease. Therefore, operating cash flow

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volatility variables can provide good or bad signals, so a cash flow statement is required in predicting the bank's future conditions. For this reason, economic actors need historical data in financial reports that can help in predicting this. This is explained by the fact that the evaluation of the bank's performance focuses not only on the income statement and the balance sheet, but also on revenues and increasing profits, and thus the performance of the bank, which will also rise. A cash dividend is a portion of a bank's profits that is paid to shareholders in cash. Therefore, the bank's management must make a permanent decision regarding the retention or distribution of all or part of the cash profits of the shares. The continuation of profits can be affected by other internal factors, which are the volatility of operating cash flows that will be difficult to predict. Based on the above description, the importance of the study comes from determining the role and strength of bank assets from operating activities by generating cash flows.

Firstly: research methodology and Literature review

1. The problem of the study:

Iraqi banks face major challenges, such as economic changes, challenges and instability of the banking environment, which may negatively affect the quality of its assets. Low quality assets can lead to an increase in the risk of financial default and a reduction in operational liquidity. Hence the importance of researching the impact of asset quality on cash flows. Because it enables improving asset management strategies and raising the efficiency of liquidity in Iraqi banks listed on the Iraq Stock Exchange. The problem of the study stems from the following question: Are cash flows through operational activities affected by the quality of banking assets?

2. The study hypothesis

The research has a main hypothesis that states there is a statistically significant positive effect of the quality of banking assets on operating cash flows.

3. The importance of the study

That is important must determine how asset quality affects operational cash flows. Because it has a direct impact on the bank's capacity to produce cash from its activities, asset quality is a reflection of the health of the bank's financial situation. If the loans and investments held by a bank are of good quality, it will lead to positive and sustainable cash flows, which will decrease liquidity concerns and boost confidence among depositors and investors. Conversely, falling asset quality can raise the number of non-performing loans, which in turn can strain cash flows and raise the probability of fiscal failure.

4. Objectives of the study

Many primary goals are being pursued by this research. To start with, it aims to forecast the bank's liquidity by finding the correlation between asset quality and operational cash flows. and, the research adds to our understanding of how non-performing assets affect cash flow sustainability and how to address these issues through better banking policy. by enhancing asset quality and identifying possible dangers, the study intends to assist banking institutions in making more informed investment decisions, Lastly, it's useful for figuring out how to manage liquidity well and strike a balance between financial risk and profitability.

5. Study sample

The study relied on a sample of [nine banks] from Iraqi commercial banks listed on the Iraq Stock Exchange. This is for the period from 2010 to 2019. This sample provides an adequate representation of the Iraqi banking sector; it enables the exploration and analysis of the impact of the quality of banking assets on operating cash flows in this sector. The study aims to evaluate the relationship between asset quality and operating cash flows within this sample. Which contributes to understanding the dynamics of the financial performance of listed Iraqi banks and providing recommendations to enhance their liquidity and financial sustainability?

Secondly: View Search Literature

1.Quality of Bank Assets

The efficiency of the banking industry is vital to the stability of the entire financial system within any economy. However, local banks may be criticized and notorious for their continued inability to show superior performance in terms of returns on loans and advances that constitute the main source of income from the bank's assets (Al Masud & Hossain, 2021:50) Every company has to deal with operating expenses in today's world, where business information is both expensive and inequitably dispersed and where demand, supply, and market pricing are all subject to a high degree of uncertainty. Similarly, In terms of fundamental efficiency, which dictates the character of investments and financing risks, every bank has its unique set of constraints on production capacity and technology. This process of creating the bank's funds requires sufficient assets for survival, subsistence and development as it constitutes the company's wealth in the short and long term for the business operation The quality of the assets is an aspect of the bank's management that necessitates the valuation of the bank's assets in order to facilitate the measurement of the level and magnitude of credit risk associated with its operation. The safety of assets and the soundness of loans are basically, were the banking sector places a high value on both of these concepts and their management is crucial. However, when loans are not returned, as happens frequently, banks face difficulties and may write off these debts as bad. The capacity to repay is also a key consideration when deciding to lend money, and this result in bad debts. There are some reasons that include the lack of a loan policy developed by banks, the lack of commitment to analyzing the loan policy of financial statements, poor governance, insufficient project monitoring, and incomplete knowledge of customer activities (Abata& Adeolu, 2014:40). However, related issues related to high levels of non-performing loans, risk management, operational efficiency, and liquidity restrictions, which have implications for the quality of assets and the trading stability of banks, as they continue to cause concern among analysts and decision makers (Apau et al, 2023:158). Bank profitability, which in turn affects the health of the financial markets, the stability of banking operations, the health of the financial system, and the economy, is highly dependent on the quality of a bank's assets, between the quality of a bank's assets and its loans. Loan quality is evaluated by looking at non-performing loans. The low quality of assets or the increase in non-performing loans that reach a large amount may lead the bank to bankruptcy and economic slowdown. Considering that a decrease in high-quality assets—also known as bad assets—was a major contributor to the 2008 financial crisis, it is crucial to accurately measure non-performing loans, thoroughly analyse their effects, and formulate economically significant policies to benefit the economy and banks. (Adhikary, 2006:82), so the quality of the bank's assets and operational performance are positively correlated because if the quality of the bank's assets is insufficient, it will have to increase its bad debt losses in addition to spending more resources on collecting non-performing loans (Abata, 2010:313). The link between non-performing loans and banks' profits is inverse. Consequently, banks must safeguard their assets, investors' interests, and credit through careful risk management. To pay for operations and financing, it must earn enough money from lending and credit activities or services to cover those costs and then use retained earnings to support operations in the future. It would improve growth, profitability, and survival rates. (Achou, & Tenguh, 2008:20). As part of the loan amount subject to collection, banks will have to pay for non-value-added operations, including monitoring the borrower's financial status regularly to manage and oversee the collection process, attention to the value of collateral, and rearrangement of the collection process. Depreciation plan, calculation of deduction costs etc. The costs include gaining the confidence of management and customers, maintaining the integrity of banks, and preventing the classification of banks as bankrupt. The decrease in deposits due to loss

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of customer confidence, the additional costs of monitoring the quality of loans, and the high future costs resulting from ignorance of the problems caused by other operations that arise when loan quality issues attract (Khalid, 2012:132). This is why national and international institutional norms about the valuation of assets have been put in place, particularly in the last 25 years. In 1995, the US Federal Reserve put the "Safety and Security Standards" into effect. These standards state that financial institutions must establish asset quality control systems to detect issues related to asset quality and consistently report on the quality of their assets to their board of directors. This is done to evaluate the risk of asset quality distortion. (Eze & Ogbulu, 2016:47). Concerning the management of loan risk and the quality of banking assets, the Basel Committee on Oversight established 25 fundamental principles. this shows that asset quality is now a critical component of the control of authorities in each country globally. Hence, the standards that began to be published in 2000 under the title Basel II have been ratified by the European Union has issued regulations about capital adequacy. The criteria above have been updated to reflect changes in the financial markets and the onset of the worldwide financial crisis since the end of 2007 and this implies that the quality of the assets constitutes a general concern for the financial supervisory authorities in each country around the world.

(Kadioglu & Ocal,2017:60) By definition, asset quality is the sum of all absolute assets possessed by the bank through which income can be obtained as expected. Banks often set a ratio that determines the quality of their loans. This ratio is recognized by a bank. This ratio shows the nature of the source of credit. If this collectability is unacceptable, doubtful, and ineffective in all public financing operations, the bank faces a credit or financing problem (Anggraeni & Berniz, 2022:426). The quality of bank assets can be measured through the provision of questionable loans to total assets, which may indicate the bank's non-performing loans ratio (Olaoye & Olarewaju, 2015:13).

There is a set of asset quality determinants for the bank. Loan success cannot be predicted solely by looking at macroeconomic indicators; individual bank-specific characteristics must also be considered, which have a tangible impact on the performance of bank assets, the most important.

1. Bank size: The size of the bank is represented by the total assets. The bank's assets are one of the factors that have been observed to be linked to unprofitable areas. Evidence from previous studies indicates that the quality of loans is affected by the size of the bank. Since large banks have greater capacity, they can diversify the loan portfolio and reduce the likelihood of losses (Salas& Saurina, 2002:208). The explanation provided by studies for this relationship is that large banks have a diversified loan portfolio and the ability to absorb low-value loans because diversification reduces the positive impact of the bank's assets on non-performing loans (Alexandri & Santoso, 2015:206).
2. Capital adequacy ratio: The capital adequacy ratio is a determining factor that the capital adequacy ratio has a significant impact on bank assets. It has found that banks with good capital are not involved in carrying out risky activities and reducing the level of unprofitable loans, while banks with low capital are likely to carry out operations in the future. This shows the nature of the inverse relationship between capital adequacy and non-performing loans (Swamy, 2015:27) (Umanto &Fajar, 2017:69)
3. The Board of Directors: There are some influences for the Board of Directors that directly affect the quality of the assets, especially by granting loans, including the capacity of the powers granted to the Board that the large Board of Directors contributes to the performance of the banks, the size of the responsibility granted to the Board, the ability of the Director to

monitor and provide advice to management to better monitor and create better value for the bank. As well as the independence of the Board of Directors at a time when the performance of the bank is poor, many studies have proven when external managers are working to improve the performance of the bank. The manager's financial expertise is that in a complex business environment and financial statements the manager's expertise can enhance understanding and can lead to better monitoring (Gafoor et al, 2018:124).

4. Accelerated growth of bank credit: Credit growth refers to the expansion of banks' credit, which might impact the emergence of non-performing loans, non-performing loans. The rapid growth of credit occurs due to low interest rates and weak credit standards to examine loans, which leads to an increase in non-performing loans. Better risk management processes and stricter credit requirements are signs that banks have improved, which may eventually lead to lower levels of non-performing loans. Some results also reveal that credit growth supported by economic growth due to borrowers investing in profitable projects and can repay loans due to their sufficient profits and thus reduce levels of non-performing loans (Klein, 2013:160)
5. Compliance with laws and regulations: The more the bank does not comply with the regulations, the higher the non-performing loans will be if it is a bank with a larger capital and suffers less from non-performing loans as a result of its compliance with the official laws by the monetary authorities. Moreover, if management takes on more risk by disbursing most deposits as loans, this leads to an increase in non-performing loans (Liang et al, 2013:2956).
6. Macroeconomic factors: that non-performing loans were affected by macroeconomic factors such as disposable income, monetary conditions, unemployment and real interest rates are highly correlated with non-performing loans (Kauko, 2012:196)
7. Investments: Financial investments (equities) and real investments (real estate) can affect the quality of loans. Since stock prices and housing prices (housing price data is often not available) are interrelated, the decrease in the value of housing guarantees often leads to an increase in non-performing loans. In addition, if stocks are used as collateral, a decrease in the value of stocks can lead to a decrease in the quality of loans (Beck, 2013:11)
8. Cost of financing: Cost of financing is also a determining factor because it causes an important strategic decision to be made in the field of bank lending. It could be a negative correlation between the cost of financing and banking business plans, and suggests that banks are very cautious and selective in their lending. The high cost of financing may have a significant impact on non-performing assets, leading to their decline (Ganic, 2014:2249).

2.Operating Cash Flows

The banking industry places a premium on the statement of cash flows due to its representation of the process's inputs and outputs. To do this, the cash inflow and outflow throughout the accounting period must be detailed, including its origins and any changes to the cash balance. The information provided by this statement highlights the strengths and flaws of the bank's activity. Financial statement users can learn how each activity affects the financial situation, modified cash and cash quantities, and investments by looking at the list of the banks three primary activities: operating, investment, and financing (Bragg, 2002:106).

The purpose of preparing financial reports is to provide both internal and external stakeholders with information about the bank's current and future financial standing. One such document that may be used to show how the bank's money comes in and goes out is the cash flow statement. Determining how well a bank is doing could be as simple as looking at its cash

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flow data. An indicator of a bank's honesty during a given period is its financial performance (Gofwan, 2022:60), So, realized cash flows can be considered a measure of the bank's performance that may provide alternative and additional information to the profit produced during specific periods. Since cash flows are susceptible to timing and matching issues, they could be a "noisy" indicator of the bank's success. The revenue recognition and matching principles help address these issues with cash flow calculations and make accounting profits a better indicator of a company's profitability. As a result of this change, it appears that banks' financial performance can be assessed using earnings and cash flows (Jaouida, 2011:3). The profitability index measures a financial institution's capacity to profit from its investment capital. The profitability rate indicates the bank's competitiveness and managerial quality (Rahman, 2017:88). Net cash flows measure the quality of a company's profitability; profitability ratios, based on the cash basis rather than the accrual basis, indicate that a higher level of cash is required for operational activities. The profitability ratio provides insight into the efficiency with which a company's management has maximized profits from operations over a given period, compared to other costs and expenses. The percentage of operating activity measures the bank's ability to generate operating cash flows from its operational activities; it is a good indicator of profitability. The quality of the bank's profits improves as the ratio goes up and down, respectively. The ratio of net income to operational cash flows is a key indicator of the strength of the dialectical relationship between the two variables. This ratio illustrates the extent to which accrual accounting assumptions are utilised and the extent to which modifications are included in net income (Makttoof, 2023:66). This allows those who use financial statements to track cash flow ratios over time and observe if there has been any improvement. Furthermore, by analyzing the bank's financial performance, one can learn about the efficacy of the bank's goals in meeting its consumers' needs (Ngala, 2020:302). Everything that a bank does to generate a profit is considered an operating activity. The cash flows from operational operations include consumer payments, product sales, interest income, outlays of cash for expenses, tax refunds, interest expense reimbursement, other cash receipts, value-added tax reimbursement, and employees' pay cheques (Amor, 2023:48), Statement No. 95 of the Financial Accounting Standards provides the following definition of a cash flow statement: "A cash flow statement is a financial report that shows or describes cash inflows and outflows, and net changes in cash arising from operating activities, investment activities and financing activities of the bank during a given accounting period. This report is also a means that can track or match the initial cash balance with the cash balance at the end of the financial year. at the same time, according to the statement of financial accounting standards, cash flow is the financial report that provides historical information regarding changes in the cash and cash equivalents of the company through the cash flow report. Moreover, the objectives of the cash flow report have been determined as between them (Santoso, 2021:106), namely:

1. Provide historical information regarding changes in cash and cash equivalents to the reporting entity by classifying cash flows based on operation, investment, financing and transitional activities during a single accounting period.
2. Provide information related to sources, uses and changes in cash and cash equivalents during the accounting period as well as the cash and cash equivalents balance at the reporting date. This information is provided for accountability and decision making.
3. At the same time, the cash flow report presents information regarding the source, use and changes in cash and cash equivalents during an accounting financial period. Internal and external cash flows are

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classified on the basis of operating flows, investment, financing, transitional activities, cash balance and cash equivalents at the date of the financial report.

Operating cash flows can be measured through the Operating cash flow to net income ratio. This ratio is utilized to assess the bank's performance

Operating cash flows can be measured by the ratio of operating cash flow to net income. This ratio is used to reveal how well the company is performing.

3.Literature review

This study examines the impact of banking asset quality on operating cash flows in Iraqi banks listed on the Iraq Stock Exchange. This topic comes within the framework of financial studies that search for factors affecting the financial performance and cash flows of banks. There are many studies that refer to the variables of the current study, some of which we will mention, the most important of which.

Study Raditya, Utami (2021) This research aims to ascertain how operational cash flows, accrual quality, and current earnings affect future profits. The study focuses on listed industrial enterprises in the years 2016–2018 on the Indonesia Stock Exchange. A three-year sample of one hundred companies was utilised. According to the study, future profits are positively and significantly affected by operating cash flows and current earnings, but future earnings are unaffected by vesting quality.

The study ELAHI, et al (2021) Tries to determine if operational cash flows affect the soundness of Pakistani banks. Data for the study came from 20 commercial banks listed on the Pakistan Stock Exchange's annual reports between 2011 and 2019, which were aggregated using an annual dashboard. Banks' financial health was positively and significantly impacted by operating cash flows and net interest margin and negatively by the cost-to-income ratio of advances and net provisions to total assets. Banks should grow more efficiently and increase their liquidity by cutting back on lending to make the financial system more stable.

While the study of Kartikawati, et al (2023) which aims to prove the impact of dividends on the quality of the company's profits and the impact on the ability to predict the company's money flows in the future experimentally. Population in Research These are some of the companies in the ASEAN region and are included in the publicly listed asset class list of companies. the results of this study showed that a company that paid dividends that are consistently proven will have better-quality dividends than companies that do not pay dividends to the shareholder company. Also, the size of the company can affect the quality of the company's profits, so it can be concluded that the size of the larger companies will offer the highest quality of profits.

Ghadimifardzanjani & Makrani (2015), which aimed to show the impact of profit quality on cash profits within a sample of 150 companies listed on the Tehran Stock Exchange during an 8-year period between 2006 and 2013, which were selected using the simple random method. Methodology: The research methodology is of the relational type, and a binary logistic regression model has been used. There is a statistically significant relationship between the quality of profits and cash distributions. the research results also showed that variables such as operating cash flows, company size, debt ratio, and earnings-to-assets ratio have a significant relationship with cash earnings.

As for the study of Sukmono & Setiyawati (2022), The study's time frame was 2016–2020, and its primary focus was on Indonesia Stock Exchange-listed food and beverage companies. Over five years, 80 samples were collected from 16 companies using deliberate sampling. The ratio of pre-tax earnings to average total assets is a reliable predictor of long-term financial health. It is a good indicator of future profitability. Total operating cash flows as a percentage of total assets is one measure of operational cash flow volatility. In contrast, sales as a percentage of total assets are another

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measure of sales volatility. The findings indicated that sales and operating cash flow volatility positively affected earnings continuity.

Saptian& Fakhron (2020) This research aims to determine the impact of sales volatility, operating cash flow volatility and leverage on the profitability continuity of the agricultural sector companies listed on Bursa Indonesia during the period 2009-2018. The results of this research showed that sales fluctuations showed negative and not having a significant impact, unlike operating cash flow fluctuations and leverage variables which both have a positive impact but do not have a significant impact.

Previous studies have examined various aspects of the relationship between earnings quality, cash flows, and financial stability across multiple sectors and markets. Which contributes to enriching our understanding of the factors that affect financial performance and sustainability in financial institutions.

However, these studies did not focus specifically on the impact of banking asset quality on operating cash flows, especially in the Iraqi banking environment. Hence, the current study seeks to fill this gap by analyzing the relationship between banking asset quality and operating cash flows In the Iraq Stock Exchange, a subset of Iraqi commercial banks. This study is based on the concepts and theoretical frameworks presented by previous studies on the importance of cash flows and the quality of profits in enhancing financial stability. And providing deeper insights into how asset quality affects banks' operational ability to generate liquidity, which contributes to improving financial performance and the sustainability of operational cash flows. This is a topic that has not been adequately studied in previous literature. Thus, the study contributes to improving academic understanding of the factors affecting the financial performance of banks in an environment with unique economic and regulatory specificity.

Fourth: Practical approach, measurement of variables and statistical analysis

To measure the Study premise (a statistically significant effect exists of asset quality on cash flows) and to measure the correlation between the independent and dependent variables, independent indicators were used to measure them based on the annual data published by the Securities Commission of the Iraqi Stock Exchange for the period (2010_ 2019) using simple statistical analysis through the simple linear regression equation and the stability of the series of variables, where the variables were measured as follows:

Quality of banking assets $\frac{doubtful\ debts\ allowance}{Total\ assets}$ **(1)**

Table (1) Quality of banking assets for the banks sample of the study

year	United Investment Bank	National Investment Bank	Credit Bank of Iraq	Commercial Bank of Iraq	Mosul Development Bank	Baghdad Bank	Middle East Bank	Sumer Commercial Bank	Al-Ahli Bank
2010	0.0327	0.0283	0.0076	0.0411	0.0859	0.0278	0.005	0.0049	0.0449
2011	0.0314	0.0092	0.0071	0.0345	0.077	0.0273	0.0053	0.0102	0.0441
2012	0.0536	0.0323	0.0068	0.0313	0.045	0.0271	0.0053	0.0265	0.0317
2013	0.0624	0.0236	0.0004	0.0273	0.0392	0.021	0.0283	0.0067	0.0312
2014	0.0848	0.0295	0.0003	0.0254	0.0269	0.0194	0.0323	0.0102	0.0279
2015	0.1006	0.0299	0.0003	0.0247	0.0257	0.0194	0.0299	0.014	0.0231
2016	0.1108	0.0053	0.0003	0.0222	0.0194	0.0158	0.0236	0.0052	0.0215
2017	0.1203	0.0053	0.0003	0.0222	0.0166	0.0131	0.0092	0.0111	0.0203
2018	0.1395	0.005	0.0003	0.0221	0.0135	0.0096	0.0295	0.0106	0.0139

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2019	0.119	0.0057	0.0003	0.0213	0.0129	0.0093	0.0057	0.0083	0.0123

Source: data from the banks sample of the study.

The quality of banking assets of the banks in the study sample for the period studied can be measured based on the following equation

Operating cash flows $\frac{Net\ cash\ flow}{Net\ income}$ **(2)**

Table (2) Cash flows for the banks sample of the study

year	United Investment Bank	National Investment Bank	Credit Bank of Iraq	Commercial Bank of Iraq	Mosul Development Bank	Baghdad Bank	Middle East Bank	Sumer Commercial Bank	Al-Ahli Bank
2010	0.13	2,09	1,06	0.19	6,74	5,60	5.06	6.33	4.44
2011	1.97	2,87	7,70	2,45	5,94	4,56	4.28	3.74	2.64
2012	0,42	1,65	3,93	1,68	3,41	4,44	2.6	2.79	2.13
2013	1.93	0,67	2,52	1,65	3,28	2,00	2.41	2.63	1.82
2014	2.08	0,97	1,28	1,09	1,96	0,47	2.33	2.54	1.53
2015	1,68	1,44	6.04	1,06	1,35	3.99	2.16	2.23	1.39
2016	2.98	1,56	3.65	0,54	0,67	3.41	2.04	0.98	1.26
2017	0,52	0.83	2.15	0,38	0,12	1.92	1.93	0.27	1
2018	3.66	2.09	2.11	1.57	2.17	1.25	1.86	0.21	0.91
2019	0.14	6.34	0.4	0.24	1.97	0.48	0.35	0.02	0.9

Source: data from the banks sample of the study.

Data integrity check and research hypothesis test

After completing the research variables' measurements—which have already been covered—and ensuring that the data was suitable for testing hypotheses, the researcher coded the data in preparation for entering it into the statistical program utilised by agencies:

Table 3: Coding of research variables

Codes	Type of variable	Variable Name	#
AQ	Independent	Asset Quality	1
CF	CONTINUE	Cash flow	2

Source: Output of SPSS.

The researcher verified data integrity and validity for testing by checking for missing values, checking time series stability, and testing agency normal distribution to lay the right foundation for hypothesis testing:

1. Descriptive statistics:

The following table summarises the descriptive statistics of the data for the variables that will be used to test the hypotheses:

Table (4) Descriptive statistics of research variables

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
AQ	90	.020000	770.00	89.927	162.56
OCF	90	.0003	.1395	.026996	.0282171
Valid N (listwise)	90				

Source: Output of SPSS.

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What stands out most from the data in the table is the total number of valid values and the fact that all variables had a sample size of 90 observations. All variables have complete data sets with no missing values because the valid N (listwise) is 90 observations.

2. Stability test of strings (unit root)

Time series stability analysis aims to accurately describe the studied phenomenon by discovering its pattern and recording past values and changes over certain periods. It also confirms that the time series does not change in the form of its distribution. Additionally, it examines the random trend in the time series and whether it has valid methodological patterns for prediction. The stability of time series depends on an arithmetic medium and constant variation over time. Testing the unit roots, which become unpredictable if present in the chain, confirms that relying on unstable variables leads to misleading results among the research variables. The following are the outcomes that were achieved using the Eviews-v9 program:

Table (5) Stability test of strings (root of unit) for research variables

Result at level	Prob	T-Statistic	Variable
stationary	0.021	-2.531	AQ
stationary	0.011	-8.623	CF

Source: Output of SPSS.

All of the variables' time series data have a significance level lower than 0.05, as shown in the preceding table; this indicates that the data is stable at that level and can be used for predictions, regression analysis, hypothesis testing, and other similar purposes.

3. Normal Distribution Test K_S

The following are the outcomes of the researcher's test for the normal distribution of the data about the research variables:

Table (6) Testing the normal distribution of research variables data

One-Sample Kolmogorov-Smirnov Test			
		AQ	OCF
N		90	90
Normal Parameters[a,b]	Mean	89.927	.0269
	Std. Deviation	162.565	.028
Most Extreme Differences	Absolute	.308	.242
	Positive	.308	.242
	Negative	-.290-	-.172-
Test Statistic		.308	.242
Asymp. Sig. (2-tailed)		.000[c]	.000[c]
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			

Source: Output of SPSS

Even though the variables' significance levels are less than 0.05, meaning that the data does not follow a normal distribution, the 90 observations made up the sample size, which was deemed sufficient to pass the normal distribution test according to the theory that states that data is considered naturally distributed and valid for statistical analysis if it exceeds 30 observations.

Research Hypothesis Test:

Hypothesis: "There is a statistically significant effect of asset quality in cash flow"

To test this hypothesis, the following model was formulated:

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2025, VOL. 06, NO. 03, 41-56, E-ISSN: 2709-4251, P-ISSN: 2708-8790
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$$CF_{it} = b_0 + b_1 AQ_{it} + \varepsilon_{it}$$

WHEREAS

b_0 = The constant of the regression equation represents an indicator of how well the independent variable performs when it is equal to zero.

b_1 = A measure of the kind and magnitude of an impact, inclination.

ε_{it} = Statistical residues are often known as estimation errors.

Statistical analysis was conducted using SPSS. This is what the findings showed:

Table (7) Summary of the research hypothesis testing model

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.319[a]	.102	.092	.953
a. Predictors: (Constant), AQ				

Source: Output of SPSS

According to the model summary table, the variables had a correlation value of 0.319 and a coefficient of determination of 0.102. This indicates that asset quality accounts for 10.2% of the variance in cash flow and that the deviation from the mean for the estimation error is Std. A lower value for this type of mistake indicates superior statistical performance, and the estimate had an error of 0.953.

Table (8) Variation of the first hypothesis test

ANOVA[a]						
Model		Sum of Squares	df[1]	Mean Square	f	Sig.
1	Regression	9.084	1[2]	9.084	10.002	.002[b]
	Residual	79.916	88[3]	.908		
	Total	89	894			
	Total	89	895			
a. Dependent Variable: ROE						
b. Predictors: (Constant), Corr						

Source: Output of SPSS

[1]df is an acronym for degrees of freedom, which refers to the number of independent variables that can be altered when calculating a statistical feature. The computation of diverse statistical characteristics relies on a collection of information or data. The term refers to the quantity of independent data used to compute a specific statistical characteristic.

The term "degree of freedom" refers to the number of independent variables in the regression model used to test a hypothesis.

The term "it" refers to the second degree of freedom, which is calculated by subtracting the first degree of freedom from the sum of the two degrees of freedom.

The term "degrees of freedom" refers to the total number of independent pieces of information available in a statistical analysis. It is calculated by subtracting one from the sample size.

Refers to the sum of the first and second degrees of freedom and equal to the size of the sample minus one.

It should be noted that the strength of the correlation ranges between positive one and negative one, and the positive signal indicates the soft relationship between the two variables and the negative signal indicates the inverse relationship between them, and the closer the correlation value to the positive or negative one, the stronger the correlation, and the closer to zero, the weaker the correlation.

df means degrees of freedom, which is an abbreviation of degrees of freedom, when calculating a statistical property, it represents the number of possible values. Collecting facts or information is the basis for calculating

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various statistical characteristics. It is the number of separate data pieces used to calculate a specific statistical property

A regression model's number of independent variables is directly proportional to the first degree of freedom used to measure the hypothesis.

It's the second degree of freedom; its value is the total of the first two minus one.

It is clear from the outcomes of the hypothesis test that the statistical model used was appropriate, as the computed value of F was 10.002 (greater than its tabular value calculated according to the degrees of freedom df, which is 3.96 at a 5% level of significance). The Sig test's significance level was 0.002 (, which is much lower than the acceptable social science error 0.05), as shown in the variance table.

Table (9) Regression function coefficients for the first hypothesis

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.907E-16	.100		.000	1.000
	AQ	.319	.101	.319	3.163	.002
a. Dependent Variable: CF						

Source: Output of SPSS

The independent variable affects the dependent one (as indicated by coefficient B), demonstrated by the slope value of 0.319 in the regression equation, as shown in the Coefficients table. When the coefficient is positive, it means that the independent and dependent variables are directly affected by each other. Put simply, when all other independent variables, which are beyond the scope of this research, remain constant, a one-degree rise in asset quality leads to a 31.9% increase in cash flow, the dependent variable.

According to the data in the table, the independent variable's T-statistic was 0.002, which is significantly lower than the social science-allowed error of 0.05. In other words, the statistical effect has been proven, and the sample data has accepted the study hypothesis.

The following graph, which shows a rising curve, proves that the two variables are directly related:

The value is one less than the sample size, representing the total of the first two degrees of freedom.

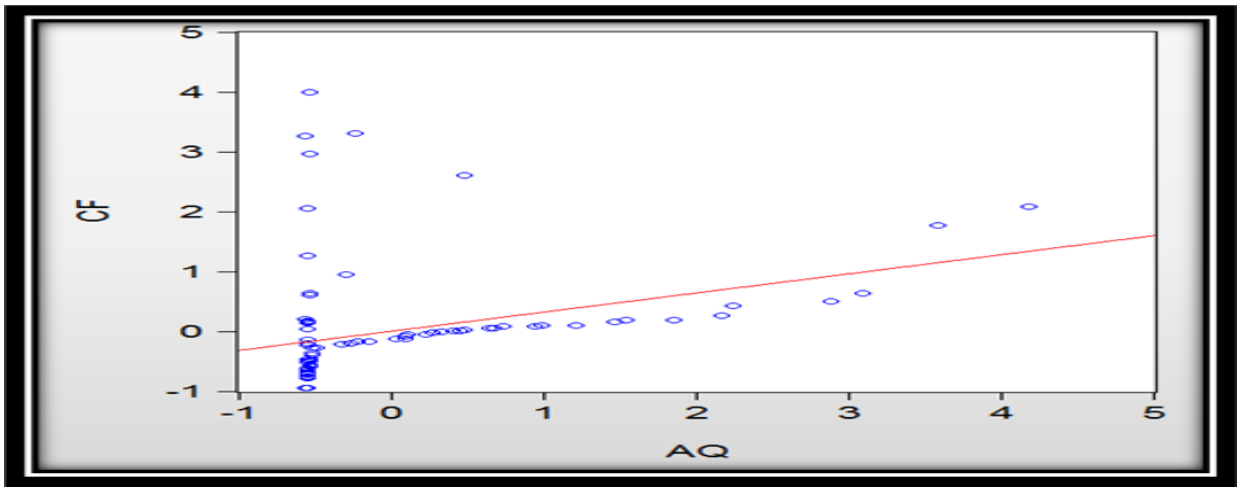

Figure (1) The relationship between asset quality and cash flow
Source: Output of SPSS

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2025, VOL. 06, NO. 03, 41-56, E-ISSN: 2709-4251, P-ISSN: 2708-8790
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Based on the data, we can rewrite the regression equation that was used in the hypothesis test to predict the following form:

$$CF = -1.9065E-16 + 0.319 * AQ$$

The histogram displays the normal distribution of the statistical residues of the regression equation, which demonstrates the accuracy of the preceding regression equation. This information is shown in the following image.

For regression analysis to work, assuming that the residuals follow a normal distribution is necessary. This means that they go from negative to positive at most once for every independent variable value and always add up to zero.

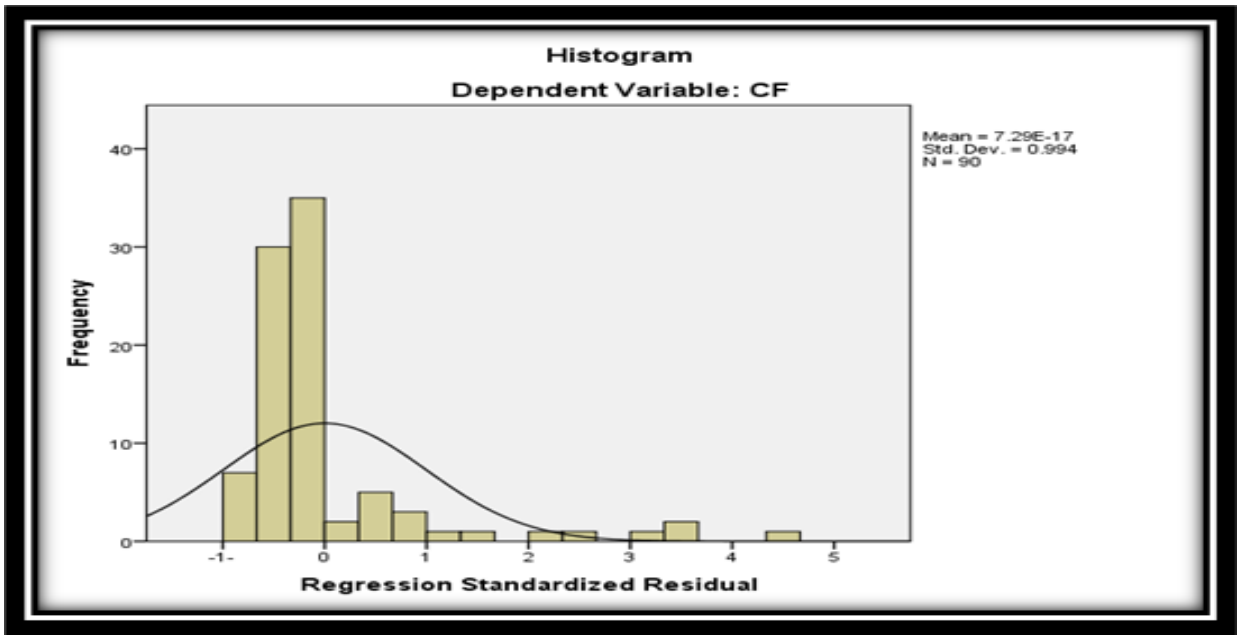

Figure (2) frequent histogram of the hypothesis remainders
Source: Output of SPSS

The accompanying figure provides visual evidence that the regression analysis test criteria are satisfied; it demonstrates that the points are distributed along a straight line, which proves that the statistical residues follow a normal distribution**.**

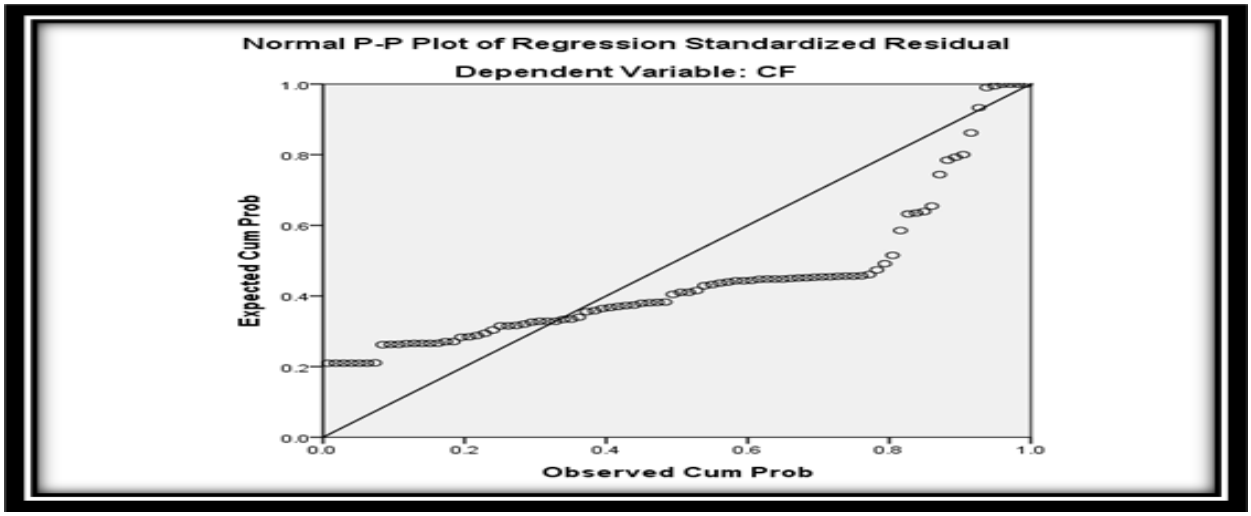

Figure (3) Normal distribution of hypothesis residuals
Source: Output of SPSS

Conclusions:

The most important findings of the research through statistical results to measure data related to the variables of the study are that, there is a positive correlation and impact between the quality of bank assets and cash flows .the quality of cash flows can be improved through the quality of assets of future value that can positively affect the value of the bank .the quality of assets is a good indicator of the predictability of future cash flows as a result of the direct relationship and the positive impact between them. This encourages banks to focus on achieving the quality of assets with the aim of obtaining cash flows from their operating activities. Improving credit means the strength of bank assets, which achieves the possibility of meeting the financial obligations of banks by maximizing their cash flows. the performance and explanatory power of the correlation between the quality of assets and cash flows explains that high profits lead to very large cash flows. the banks in the study sample achieved a higher cash flow ratio than the required ratio as a standard for good cash flows 1 or more.

Research is recommended. reducing the percentage of non-performing loans through credit covenants and by managing the potential risks of bank loans and other assets. diversification of banking assets through diversification of operational activities, which ensures that the same risks are not exposed at the same time. adopting sustainability policies that achieve high profitability ratios and thus high cash flows. ensuring compliance with regulations and laws and ensuring compliance with the required capital ratio in addition to the required liquidity in order to exploit the opportunities available to achieve more returns.

Data Availability:

The data used to support the results of this study has been included in the article.

Conflict of Interest:

The authors declare that they have no conflicts of interest.

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