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Examining the causal factors of banking achievements for Islamic banks in Jordanian Islamic banks: An analytical study

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Abstract

This study focuses on examining the causal factors and determinants of financial banking achievements and performances for the working Jordanian Islamic Banks, including Safwa Islamic bank, International Islamic Arab Bank (IIAB), and Jordan Islamic Bank (JIB) during (2011 – 2021). The study considered the most popular measurements for financial banking performances, namely Return on Equity (ROE), Return on Assets (ROA), and dividend yield (DY) as dependent variables. Additionally, the factors of independent variables were measured by quick liquidity ratio, investments and cash to the summation of total deposits, shareholders' equity to facilities of credit, and equity ratios. The findings showed a positive and significant influence and impact of investments and currency to the summation of aggregate deposits and equity ratio on return on equity, and a negative significant impact of shareholders' equity on return on equity. However, there was a negative but not significant influence of liquidity (quick) ratio on ROE. Furthermore, the findings indicated a positive and significant impact of investments and currency (cash) to aggregate banking deposits and equity ratio on return on assets, but there was a negative but not significant impact for liquidity quick ratio and shareholders' equity to credit facilities on return on assets. The liquidity (quick) ratio had a significant and negative impact on dividend yield. Although there was a positive but insignificant impact of investments and cash to the summation of total deposits and equity ratios on dividend yield, there was a greater negative and insignificant impact from shareholders' equity to credit facilities on dividend yield.

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1. Introduction

Financial performance provides a clearer image of the financial activities of both commercial and Islamic banks during the time of the allocation and collection of money. This helps financial institutions to manage their financial resources and provide decision-makers with the knowledge necessary to plan for future activities (Fatihudin, Jusni, & Mochklas, 2018).

In recent years, Islamic banks and financial transactions have experienced significant growth, with a wide range of Islamic financial deals and banking operations taking place in the Middle East and North Africa

(MENA), as well as worldwide. For instance, in Jordan, there are several commercial and Islamic banks serving both local and international markets and individuals.

According to the bank logs and directory issued by the Central Bank of Jordan, the Jordanian banking system includes a total of 22 banks, all of which are controlled, managed, and supervised by the Central Bank of Jordan (CBJ). This banking system comprises 4 Islamic banks and 18 commercial banks. The Islamic banking system in Jordan consists of 3 local Islamic banks and 1 foreign Islamic bank, while CJB includes 13 local commercial banks and 5 foreign commercial banks.

This study examines and analyses the financial performance of three operating local Islamic banks in Jordan, namely Jordan Islamic Bank (JIB), International Islamic Arab Bank (IIAB), and Safwa Islamic Bank (SIB), during the period from 2011 to 2021. To differentiate this study from previous research, the study utilizes three commonly used financial performance - Returns on Equity (ROE), Returns on Assets (ROA), and Dividend Yields (DY) – as dependent variables.

The independent causal factors and variables in this study comprise four factors, namely (Quick) liquidity ratio, investments and cash to the summation of total deposits, shareholders' equity to facilities of credit, and equity ratio, which will be calculated and extracted from the annual financial reports of the working Jordanian Islamic Banks.

Numerous studies have been conducted in the field of accounting, finance, and banking on the financial performances of both commercial and Islamic banks in Jordan. Some of these studies utilized financial ratios, while others focused on comparing commercial and Islamic banks, or commercial banks in Jordan with those in different countries (Almazari, 2014). Other researchers developed models that incorporate adequacy of capital, quality of assets, earnings, managerial expenses, liquidity, and market risk sensitivity (Bashatweh & Ahmed, 2020).

2. Literature Review

Financial performance can be analysed by examining the return on equity, as noted by Almazari (2012). This measure is influenced by equity multiplier, profit margin, and assets turnover, which all impact banking financial performance. Additionally, analyzing the relationships between financial performance and financial indicators can add value to institutions and improve the value of their intangible assets over time, as pointed out by Chiarello, Pletsch, da Silva, and da Silva (2014).

Banking and financial performance undergo multiple changes to recognize the behavior of financial performance and measure it by liquidity ratio such as deposits to assets, return on assets, and return on equity (Nouaili, Abaoub, & Anis, 2015). Additionally, the positive impact of inflation, gross domestic product (GDP) growth, banks' size, and total capital to assets, and the negative impact of the index of risk.

Some studies have assessed the financial performance by comparing the values of banking performance between commercial banks and Islamic banks (Setyawati, Kartini, Rachman, & Febrian, 2015) by considering return on assets as financial performance (profitability), market share, income diversification, liquidity, assets quality, and capital adequacy ratio. They found that Islamic banks had higher values in some indicators while commercial banks had higher values in others. The financial stability, size, and capital ratio have enhanced the financial performance of Islamic banks (Alharthi, 2017), resulting in increased returns on assets and equity. Panel data analysis has confirmed the estimations of financial performance, indicating that Islamic banks have improved over time by learning from their experiences (Setyawati, Suroso, Suryanto, & Nurjannah, 2017). This has increased competition between banks in general.

Other studies have categorized and divided the causal factors and variables into three (3) segments and groups: bank-specific considerations, industry-specific causes, and macroeconomic reasons that affect banking performance (Antoun, Coskun, & Georgievski, 2018). They found a negative effect of size on the quality of assets and banks' earnings, liquidity, and capital adequacy, and a positive effect of inflation.

The factors that affect banking performance can be categorized into two groups: bank-specific or microeconomic factors, and macroeconomic indicators or factors. In a study that analyzed the factors affecting banks' performances (Jaouad & Lahsen, 2018), the focus was on the governance of banks, the structure of financial markets, and some macroeconomic factors. They found that the effect of operating management was negative and significant, while bank size was important and positively significant on banking performance. The rest of the study variables were insignificant in terms of their impact on local banks' performance. Banking financial performance can be calculated and presented by using single or multiple factors, such as returns on assets, earnings per share, returns on equities, or dividend yield. At the same time, factors that can affect banking financial performance can be single or multiple, such as share prices, bank sizes, or liquidity (Yuliza, 2018). Some studies have analyzed dividend yield by defining the determinants of dividends and payout policies (Dewasiri et al., 2019). In developing and emerging markets, investments have been found to impact past and current dividend decisions and policies. In addition, the profitability of institutions and firms can affect future dividend policies. Management across various sectors focuses and analyzing financial performances, such as financial and operating leverages, to make decisions and plan for future procedures (Ali, 2020). Experience from dual banking systems in Indonesia (Junaidi, Wahida, Sari, & Anwar, 2021) shows that 19 financial banking ratios have influenced lending and stability for banking performances, with profitability and liquidity having the highest impact on them. Sometimes, even the same independent variable can yield

different results and have varying impacts on the dependent variables and financial performance measures. For example, according to Ben, Mohamed, Boubaker, & Hdidar (2021), inflation had a negative impact on return on equity (ROE) but a positive impact on return on assets (ROA Both of these measures are used to evaluate banking financial performances and achievements. Islamic banks distribute returns to unrestricted investment deposits and shareholders, as can be calculated as returns divided on equity, solvency ratios, and returns divided on assets. According to Zakarneh (2022), all of these relationships and liquidity ratios have a significant and positive impact on the banking performance and credibility of Islamic banks.

3. Research Methodology

This study has four variables, which are liquidity quick ratio (also known as the quick liquidity ratio), investments and cash divided by the total or sum of deposits, shareholders' equity to facilities and credit, and equity ratio. These variables are represented in the left box of the following figure. The dependent variables were measured by financial performance ratios of Jordanian Islamic banks, including return on equity (ROE), return on assets (ROA), and dividend yields (DY). These variables are represented in the right box of the figure. The methodology of this evaluation clarifies the influence of causal characteristic variables on the outcome variables through statistical analysis. The hypotheses are tested to reach final results.

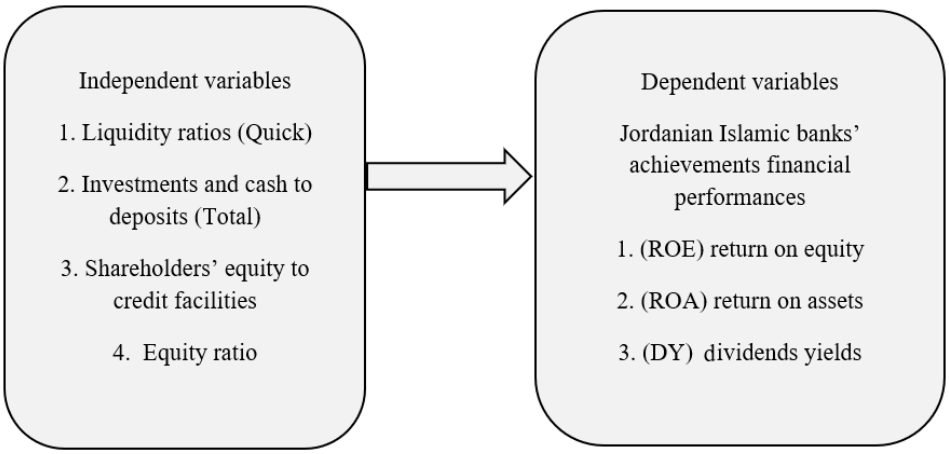

Figure 1. Research model.

Figure 1 illustrates the research model by explaining the effect of causal variables on each outcome (dependent) variable in this case study. As a result, a number of hypotheses can be stated, as shown in the next tables: Tables 1, 2, and 3.

Table 1. Research hypotheses for return on equity (ROE).

$H_{0.1}$	There is no influence of liquidity quick ratios on ROE= return on equity at ($\alpha \leq 0.05$) significant level.
$H_{0.2}$	There is no influence of investments and cash to total deposits on ROE= return on equity at ($\alpha \leq 0.05$) significant level.
$H_{0.3}$	There is no influence of shareholders' equity to credit facilities on ROE= return on equity at ($\alpha \leq 0.05$) significant level.
$H_{0.4}$	There is no influence of equity ratios on ROE= return on equity at ($\alpha \leq 0.05$) significant level.

Table 2. Research hypotheses for return on assets (ROA).

$H_{0.1}$	There is no influence of liquidity ratio (Quick) on ROA= return on assets at ($\alpha \leq 0.05$) significant level.
$H_{0.2}$	There is no influence of investments and cash to total deposits on ROA= return on assets at ($\alpha \leq 0.05$) significant level.
$H_{0.3}$	There is no influence of shareholders' equity to credit facilities on ROA= return on assets at ($\alpha \leq 0.05$) significant level.
$H_{0.4}$	There is no influence of equity ratios on ROA= return on assets at ($\alpha \leq 0.05$) significant level.

These hypotheses will be tested and examined in the following sections of this study at the 5% significant level for the three dependent variables.

Table 3. Research hypotheses for dividend yields (DY).

$H_{0.1}$	There is no influence of liquidity ratio (Quick) on dividend yields at ($\alpha \leq 0.05$) significant level.
$H_{0.2}$	There is no influence of cash and investments to total deposits on dividend yields at ($\alpha \leq 0.05$) significant level.
$H_{0.3}$	There is no influence of shareholders' equity to credit facilities on dividend yields at ($\alpha \leq 0.05$) significant level.
$H_{0.4}$	There is no influence of equity ratios on dividend yields at ($\alpha \leq 0.05$) significant level.

4. The Statistical Equations

The statistical regression equations used in this study will be Equations 1, 2, and 3, which represent the influence of the causal factors and variables on the experimental variables. Additionally, Table 4 presents the abbreviations and meaning for all factors and variables in this case study.

$$ROE = \beta_0 + \beta_1 LQR_{it} + \beta_2 CITD_{it} + \beta_3 SECF_{it} + \beta_4 ER_{it} + \varepsilon_{it} \quad (1)$$

$$ROA = \beta_0 + \beta_1 LQR_{it} + \beta_2 CITD_{it} + \beta_3 SECF_{it} + \beta_4 ER_{it} + \varepsilon_{it} \quad (2)$$

$$DY = \beta_0 + \beta_1 LQR_{it} + \beta_2 CITD_{it} + \beta_3 SECF_{it} + \beta_4 ER_{it} + \varepsilon_{it} \quad (3)$$

Table 4. The dependent and independent factors.

ROE=	Return on equity
ROA=	Return on assets
DY=	Dividend yield
i=	Islamic banks
t=	(Years) time
LQR=	Liquidity ratios (Quick)
CITD=	Investments and cash to deposits (Total)
SECF=	Shareholders' equity on credit facilities
ER=	Equity ratio

5. Measurements of Variables

Table 5 presents the variables used in this study along with the financial equations used to determine those variables, as per the Amman stock exchange companies' guide and financial ratios.

Table 5. Variable's measurements (Financial equations).

	Variables	Measurements (Equations)
1	Return on equity	(Income pertains for shareholders (net)) ÷ (Shareholders' equity (Total))
2	Return on assets	(Net income) ÷ (Total assets)
3	Dividend yield	(Cash dividend) ÷ (Market capitalization)
4	Liquidity ratio (Quick)	(Balances, Cash at the central bank + balances, cash with financial companies and banks combined with investments accounts at all banks and banking institutions and the values from financial assets at fair market values (Loss or profit)) ÷ (Deposits of financial and banking companies and banks deposits + current accounts and balances from customers with unrestricted investments accounts (Total))
5	Investments and cash to deposits (Total)	(Balances and bank notes at the central bank added to balances and accounts with banks and financial establishments and added to accounts of investments at all banks and banking organizations + financial assets (At fair market values) + financial and banking assets at fair values with the investments balances and accounts holders' equities + (Net) of financial and banking assets combined with financial and banking assets at fair market values (Through loss, or profit) + investments in affiliates) ÷ (Banks and financial establishments and institutions' deposits (Total) plus with all currents accounts of the customers combined with all unrestricted investments accounts)
6	Shareholders' equity to facilities of credits	(Shareholders' equities {total}) ÷ ((Net) receivables of sales and summation of all receivables (Aggregate receivables) + (Final values of) Ijara (Renting) assets added to (Final value of) finance accounts and investments, (Net of remaining) finances + net of alqard alhasan (Loans) (Benevolent lending)
7	Equity ratio	(Shareholders' equity (Total) + not controlling interests) ÷ (Assets as a total)

6. Research Findings

The number of observations in this study was (11) because of the time period from (2011) to (2021), as Table 6 represents. The mean and standard deviation for (ROE) were (11.5836) and (1.00207), respectively. For (ROA), the mean and standard deviation were (1.1745) and (0.17125), respectively, and for (DY), the mean

and standard deviation were (4.0600) and (0.81846), respectively. The standard deviations and means for the causal independent factors and variables were as follows: (LQR) had a mean of (0.2891) and a standard deviation of (0.03961), (CITD) had a mean of (33.1273) and a standard deviation of (2.05573), and (SECF) had a mean of (14.7636) and a standard deviation of (0.58681), finally, (ER) had a mean of (9.7664) and a standard deviation of (0.31146).

Table 6. Descriptive statistics.

Variables	Mean	Standard deviation	Number of observations (N)
ROE	11.583	1.002	11
ROA	1.174	0.171	11
DY	4.060	0.818	11
LQR	0.289	0.039	11
CITD	33.127	2.055	11
SECF	14.763	0.586	11
ER	9.766	0.311	11

Return on equity correlations matrix shows that there are positive correlations with liquidity ratio (0.775) and cash and investments to total deposits (0.759) at the (0.01) significant level and with shareholders' equity to credit facilities (0.525) at the (0.05) significant level. The correlation between (ROE) and (ER) was (0.310) but not significant. Moreover, there were positive (+) and significant (sig.) correlations at the (0.01) significant level for (LQR) and each of (CITD) (0.842) and (SECF) (0.693), and the correlation between (LQR) and (ER) was (0.456) but not significant as detailed in Table 7.

The correlation between (CITD) and (SECF) was positive at a value of 0.762 with a significance level of 0.01, and the correlation between (ER) and (CITD) was 0.322, but it was insignificant. Lastly, the correlation between (SECF) and (ER) was positive (0.835) at a significant level of 0.01. It is worth mentioning that the correlations between the causal elements as independent variables will be repeated in Tables 8 and 9.

Table 7. Correlations matrix for ROE and the independent variables.

Variables	ROE	LQR	CITD	SECF	ER
ROE	1				
LQR	0.775**	1			
CITD	0.759**	0.842**	1		
SECF	0.525*	0.693**	0.762**	1	
ER	0.310	0.456	0.322	0.835**	1

Note: {*} Correlations are significant at the (0.05) levels (1-tailed).
{**} Correlations are significant at the (0.01) levels (1-tailed).

The associations and correlations obtained from the statistical analyses for (ROA) and with all independent variables showed a positive and significance at (0.05) with (LQR) (0.679), (CITD) (0.533), (SECF) (0.643), and (ER) (0.645). However, dividend yield had three negative correlations and one positive correlation. The correlations between (DY) and (LQR) were (-0.597) and with (CITD) (-0.526) at (0.05) a significant level of (0.05). However, the correlations were insignificant between (DY) and each of (SECF) (-0.146) and (ER) (0.134).

Table 8. Correlations matrix for ROA and the independent variables.

Variables	ROA	LQR	CITD	SECF	ER
ROA	1				
LQR	0.679*	1			
CITD	0.533*	0.842**	1		
SECF	0.643*	0.693**	0.762**	1	
ER	0.645*	0.456	0.322	0.835**	1

Note: {*} Correlations are significant at the (0.05) levels (1-tailed)
{**} Correlations are significant at the (0.01) levels (1-tailed).

Table 9. The correlations matrix for dividend yield and the independent variables.

Variables	DY	LQR	CITD	SECF	ER
DY	1				
LQR	- 0.597*	1			
CITD	- 0.526*	0.842**	1		
SECF	- 0.146	0.693**	0.762**	1	
ER	0.134	0.456	0.322	0.835**	1

Note: {*} Correlations are significant at the (0.05) levels (1-tailed)
{**} Correlations are significant at the (0.01) levels (1-tailed).

Firstly, analyzing and examining the variance for the first statistical equation for return on equity as mentioned in Table 10, there are two models, and both of them are significant at the (0.01) significant level. The predictors, according to model (1), are equity ratio, aggregate investments, and currency (cash) to aggregate deposits, liquidity ratio, and put on shareholders' equity to credit funds, in contrast to model (2) without liquidity ratio.

Table 10. ANOVA for dependent variable return on equity (ROE).

{Model}		{Sum of squares}	{Df}	{Mean square}	{F}	{Significant} (sig.)
{I}	{Regression}	8.887	4	2.222	11.550	0.006 [b]
	{Residual}	1.154	6	0.192		
	{Total}	10.041	10			
{II}	{Regression}	8.372	3	2.791	11.701	0.004 [c]
	{Residual}	1.669	7	0.238		
	{Total}	10.041	10			

Note: Dependent variable: ROE.
b. Predictors: (Constant), ER, CITD, LQR, SECF.
c. Predictors: (Constant), ER, CITD, SECF.

Secondly, analysis of variance for the second statistical equation for return on assets (ROA), as noticed in Table 11, reveal two models. The first one is significant at (0.10) level of significance, with four predictors - equity ratio, investments and currency to total deposits, liquidity ratio, and shareholders' equity to facilities of credits. The second model, similar to model (2) for (ROE) from the previous table, is significant at (0.05) without a liquidity ratio.

Table 11. ANOVA for dependent variable return on assets (ROA).

{Model}		{Sum of squares}	{Df}	{Mean square}	{F}	{Significant} (sig.)
{I}	{Regression}	0.210	4	0.052	3.758	0.073 [b]
	{Residual}	0.084	6	0.014		
	{Total}	0.239	10			
{II}	{Regression}	0.207	3	0.069	5.608	0.028 [c]
	{Residual}	0.086	7	0.012		
	{Total}	0.293	10			

Note: Dependent variable= ROA.
b. Predictors: ((Constant)), ER, CITD, LQR, SECF.
c. Predictors: (Constant), ER, CITD, SECF.

Thirdly, the analysis of variance for the third statistical equation for dividend yield (DY) is shown in Table 12. There are three models, but the first model is not significant. The second model is significant at (0.10) level, and the third model is significant at (0.05) level with three predictors. The predictors are equity ratio, money, bank notes, and investments to (aggregate) deposits, and shareholders' equity to credits (facilities), which are the same as predictors in model (2) from the previous Tables 10 and 11.

Table 12. ANOVA for dependent variable dividend yield (DY).

{Model}		{Sum of squares}	{Df}	{Mean square}	{F}	{Significant} (sig.)
{I}	{Regression}	3.799	4	0.950	1.965	0.219 [a]
	{Residual}	2.900	6	0.483		
	{Total}	6.699	10			
{II}	{Regression}	3.788	3	1.263	3.037	0.102 [b]
	{Residual}	2.911	7	0.416		
	{Total}	6.699	10			
{III}	{Regression}	3.786	2	1.893	5.200	0.036 [c]
	{Residual}	2.913	8	0.364		
	{Total}	6.699	10			

Note: a. The Dependent Variable: DY.
b. The Predictors: (Constant), ER, CITD, LQR, SECF.
c. The Predictors: (Constant), ER, CITD, SECF.

In testing the impact and influence of each causal factor as an independent variable on the dependent variable (ROE) as a measurement for financial performance, liquidity ratio was not significant, while investments and legal cash to the summation of deposits were significant at the 0.01 level. Shareholders' equity to credit facilities and equity ratios were significant at the 0.05 level. For more information, please refer to Table 13 for the coefficients of ROE.

Table 13. Coefficients for return on equity (ROE).

ROE	Beta (β)	T	Sig.	Tolerance
LQR	-18.039	- 1.637	0.153	0.101
CITD	1.115	4.569	0.003	0.095
SECF	- 4.809	- 3.271	0.014	0.032
ER	6.160	3.250	0.014	0.068

Note: ROE= - 14.514 - 18.039 LQR + 1.115 CITD - 4.809 SECF + 6.160 ER
ROE = - 14.514 + 1.115 CITD - 4.809 SECF + 6.160 ER.

Next, the effect and impact of the independent variables on (ROA), another measurement for financial performance, were tested. The results showed that the liquidity ratio was not significant, while the cash and investments to total deposits and equity ratio were significant at the (0.05) level. The shareholders' equity to credit facilities ratio was not significant at (0.050) levels, but it was significant at (0.100) levels. Its tolerance value was (0.032), but according to the study's hypotheses, it will not be included. The coefficients for (ROA) are presented in Table 14.

Table 14. Coefficients for return on assets (ROA).

ROA	Beta (β)	T	Sig.	Tolerance
LQR	- 1.258	0.424	0.686	0.101
CITD	0.137	2.462	0.043	0.095
SECF	- 0.677	- 2.027	0.082	0.032
ER	1.129	2.622	0.034	0.068

Note: ROA= - 4.378 - 1.258 LQR + 0.137 CITD - 0.677 SECF + 1.129 ER
ROA = - 4.378 + 0.137 CITD + 1.129 ER

If we accept the conclusion of the shareholders' equity to credit facilities ratio (SECF) in the statistical model, and there is a significant impact and influence of (SECF) ratio on the response variable (ROA) at the ($\alpha \leq 0.10$) significant level, then the equation will be as follows and the alternative hypothesis will be accepted.
ROA = - 4.378 + 0.137 CITD - 0.677 SECF + 1.129 ER

Table 15. Coefficients for dividend yield (DY).

DY	Beta (β)	T	Sig.	Tolerance
LQR	- 17.176	- 3.173	0.013	0.792
CITD	0.013	0.069	0.947	0.286
SECF	- 0.488	- 0.147	0.888	0.013
ER	1.347	1.957	0.086	0.792

Finally, the impact and effect of the independent variables on dividend yields (DY) were tested as the last measurement for financial performance in this study. Investments, funding, and bank notes to the summation of deposits (aggregating of deposits), as well as shareholders' equity to facilities of credits, were not significant. The liquidity ratio was significant at the 0.05 level, whereas the equity ratio was not (sig.) significant at the 0.050 level but was significant at the 0.10 level. However, according to this study's hypotheses, it will not be accepted and included in the case. Table 15 represents (DY) coefficients.
DY = - 4.134 - 17.176 LQR + 0.013 CITD - 0.488 SECF + 1.347 ER
DY = - 4.134 - 17.176 LQR

If we accept the inclusion of the equity ratio in the statistical model and observe a significant impact of the equity ratio on dividend yield at ($\alpha \leq 0.10$) significant level, then the equation will be as follows and the alternative hypothesis will be accepted.
DY = - 4.134 - 17.176 LQR + 1.347 ER

Figures 2 and 3 show the series charts for the study variables from 2011 to 2021. As evident from Figure 2, the highest values were observed for return on equity, while the lowest values were recorded on assets. In contrast, dividend yield was situated between the two variables.

Figure 3 displays four series for the independent variables. The largest values and numbers were observed for investments with cash to total deposits, followed by the values of shareholders' equity to credit facilities. The third series represents the equity ratio, and the fourth one represents the liquidity quick ratio.

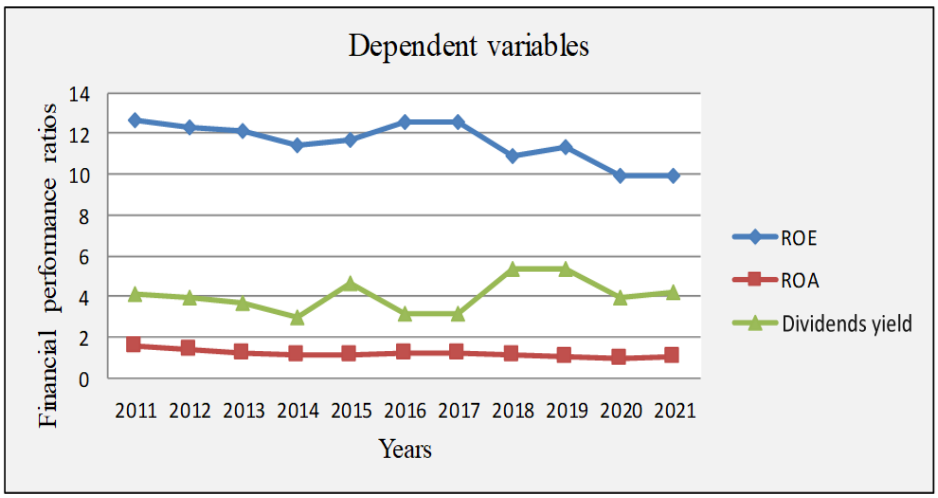

Figure 2. Dependent variables series chart.

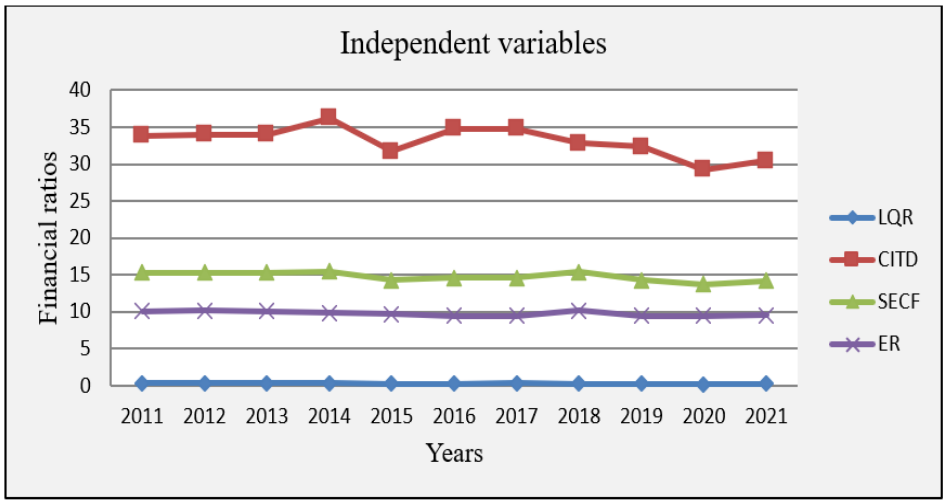

Figure 3. Independent variables series chart.

7. Conclusion: Results and Recommendations

In conclusion, banking and financial systems play a crucial role in maintaining stability and enhancing the economy. Therefore, researchers should analyze the factors that affect financial performance (Khan, Ijaz, & Aslam, 2014) and develop future plans accordingly. Financial analyses can also help researchers and decision makers in forecasting return and earnings relationships and prices (Park & Cho, 2020).

After conducting statistical regression analysis, this study identified three significant effects and impacts on the dependent variable return on equity. These include investments, cash, and money to aggregate deposits, shareholders' equity to credit funds, and equity ratio. However, the liquidity ratio did not show any significant impact.

Continuing the analysis, the study found two significant impacts on return on assets. These include cash and financing investments to aggregate deposits and equity ratio. However, the liquidity quick ratio and shareholders' equity to credit facilities did not show any significant impact on the response variable, return on assets.

Comparing these results to the findings of the last dependent variable (DY), the study observed only one significant impact on dividend yield, which is the liquidity quick ratio. On the other hand, money and total investments to (aggregate) deposits, shareholders' equity to credit funds, and equity ratio did not show any significant impact on dividend yield. So, for more details and information about the statistical results, please refer to Tables 16, 17, and 18.

As recommendations, this study suggests that financial and economic experts and analysts utilize the findings to enhance financial and banking performance and to increase profitability over time. It is also recommended to focus on the significant results, regardless of whether they are positive or negative variables.

Furthermore, this study encourages researchers to apply these dependent and independent variables to other countries and periods of time to generate new insights.

Table 16. Hypotheses testing results for return on equity (ROE).

Independent variables	Return on equity
Liquidity ratio (Quick ratio)	Negative, insignificant
Cash and total investments to aggregate deposits	Positive, significant
Shareholders' equity to credit facilities	Negative, significant
Equity ratio	Positive, significant

Table 17. Hypotheses testing results for return on assets (ROA).

Independent variables	Return on assets
Liquidity ratios (Quick ratios)	Negative, insignificant
Cash and total investments to aggregate deposits	Positive, significant
Shareholders' equity to credit facilities	Negative, insignificant
Equity ratio	Positive, significant

Table 18. Hypotheses testing results for dividend yield (DY).

Independent variables	Dividend yield
Liquidity ratio (Quick ratio)	Negative, significant
Cash and total investments to aggregate deposits	Positive, insignificant
Shareholders' equity to credit facilities	Negative, insignificant
Equity ratio	Positive, insignificant

This study has observed differences in the results from other studies. For instance, a study on bank-specific internal factors and their impact on return on assets (ROA) showed that assets quality, the efficiency of management, management of liquidity and risk, and capital adequacy had a positive impact (Muriuki, Kalui, & Akuno, 2019).

Analyzing financial performances over time can help banks and companies achieve a stable and strong position. This can be done by using financial feedback and assessing the impact of financial performance values on budgeting processes (Masakala, Omol, Wauyo, & Okumu, 2017). Certain processes, such as cutting costs, digital transformation, economic development, the percentage of debt in capital structure, and equity financing can affect financial, business, and firm performance (Luong, 2022).

The studies and analyses for banking financial performances and their determinants give a picture of the stability of banks and financial systems. This can be conducted for Islamic and commercial banks (Uddin, Ahsan, & Haque, 2017) and some ratios for Islamic banks were found to be higher than those of commercial banks and vice versa.

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