Factors Affecting the Profitability of Banks: A Field Study of Banks Operating in Jordan

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Abstract

Profitability is one of the most important objectives of the banks. It is an evidence of the efficiency of its management and its ability to attract money and investments. The study aimed at investigating the impact of a combination of factors (**Assets, Direct credit Facilities, Deposits, Owner's equity, Branches,** and **Automated Teller Machines (ATMs**) on the profitability of banks in Jordan as measured by "Return on Assets" and "Return on Owners' equity."

The study used the Eviews program to answer questions about the study and test the hypotheses. The tool for the study was the data variables of the study for the operating banks in Jordan that were collected from the annual financial statement of the Jordanian Central Bank and Association of Banks in Jordan for the period of 2000 to 2015.

The study found that there is a significant statistical impact of the factors (Assets, Direct credit Facilities, Deposits, Owner's equity, Branches, ATM) together on the return on assets (ROA). Also, there is a significant statistical impact of the factors (Assets, Direct credit Facilities, Deposits, Owner's equity, Branches, ATM) together on the return on Owners' equity (ROE). It also recommended that the Banks in Jordan should increase diversification in the investment to increase profitability. In addition, this study pointed the need for banks to expand in electronic banking services in order to increase profits and reduce costs.

Keywords: Bank, Total assets, Owner's equity, Direct credit facilities, Deposits.

Introduction

Banks play an important role in the economies of countries as they have an impact on the investment environment by directing various savings to productive projects. Subsequently, they play a key role in accepting deposits, granting credit facilities, and providing customers with other banking services. Therefore, the banks are considered as intermediaries between units of the surplus and units of the deficit.

The goal of profit is very important to the banks to ensure their continued growth and development, as well as to enhance customer confidence in the bank. Furthermore, it aims at attracting more customers to increase the market value of the bank's shares in the financial market.

The Bank's profitability is a proof of the efficiency of the Bank's management and its ability to attract customers and increase its market share. The study problem involves studying the factors that affect the profitability of banks. These factors are; Assets, Owner's equity, Direct credit facilities, Deposits, ATMs, and Branches. This is because the goal of profitability stems from the basic objectives of the bank. However, this is the most important indicator of the success of banks.

Research Problem and Research Question

Profitability is one of the most important objectives of banks and an evidence of the efficiency of its management with its ability to attract money and invest in different aspects of investments. The banks operate in an environment characterized by large competition with the expansion of the use of information and communication technology that has an impact on the profits of banks. Therefore, the problem of studying the impact of a combination of factors on the profitability of banks in Jordan as measured by Return on assets and Return on owners equity (i.e. The problem of the study) can be summarized by answering the following questions:

1 - What is the size of Assets, owner's equity, Credit facilities, and the size of bank deposits of banks operating in Jordan during the previous periods?

2 - How is the development of the branches and ATMs of the banks operating in Jordan during the previous periods?

3- Is there a statistically significant effect of the previous factors combined and alone on the profitability of banks in Jordan measured by return on assets and return on property rights?

Study Objectives

The objectives of the study can be summarized as follows:

1 - Identifying the factors affecting the profitability of banks operating in Jordan.

2- Identifying the development of banks operating in Jordan, according to: Asset, Owner's equity, Direct credit facilities, Deposits, Branches, and ATMs.

3- Recognizing the impact of the previous factors on profitability measured by return on Assets and return on Owners' equity.

4 - Making appropriate recommendations for the benefit of the banks in Jordan.

Study Framework and Hypotheses

In order to study the impact of factors on the profitability of banks in Jordan as measured by return on Assets and return on Owners' equity, the model below was constructed as follows:

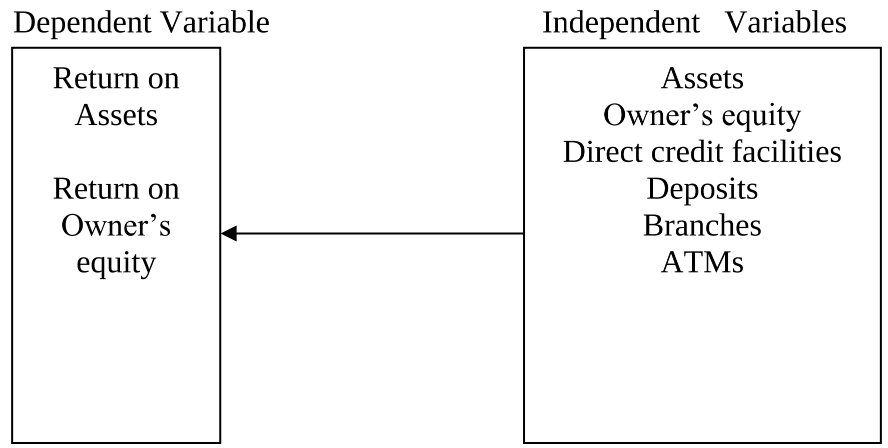

Figure 1. Study Framework Developed By The Researcher

To study the impact of factors on the profitability of banks in Jordan as measured by return on Assets and return on Owners' equity, the following hypotheses were built:

First Hypothesis

Ho1: There is no significant statistical impact of the factors (Assets, Direct credit Facilities, Deposits, Owner's equity, Branches, ATM) **on the** return on assets (ROA) **at** $p \leq 0.05$. It consists of the following sub hypotheses:

Ho1-1: There is no significant statistical impact of the Assets **on the** return on assets (ROA) **at** $p \leq 0.05$.

Ho1-2: There is no significant statistical impact of the Direct Credit Facilities **on the** return on assets (ROA) **at** $p \leq 0.05$.

Ho1-3: There is no significant statistical impact of the Deposits **on the** return on assets (ROA) **at** $p \leq 0.05$.

Ho1-4: There is no significant statistical impact of the Owners' equity **on the** return on assets (ROA) **at** $p \leq 0.05$.

Ho1-5: There is no significant statistical impact of the Branches **on the** return on assets (ROA) **at** $p \leq 0.05$.

Ho1-6: There is no significant statistical impact of the ATMs **on the** return on assets (ROA) **at** $p \leq 0.05$.

Second Hypothesis

Ho2: There is no significant statistical impact of the factors (Assets, Direct credit Facilities, Deposits, Owner's equity, Branches, ATM) **on the** return on Owners' equity (ROE) **at** $p \leq 0.05$. It consists of the following sub hypotheses:

Ho2-1: There is no significant statistical impact of the Assets **in the** return on Owners' equity (ROE) **at** $p \leq 0.05$.

Ho2-2: There is no significant statistical impact of the Direct credit facilities **in the** return on Owners' equity (ROE) **at** $p \leq 0.05$.

Ho2-3: There is no significant statistical impact of the Deposits **on the** return on Owners' equity (ROE) **at** $p \leq 0.05$.

Ho2-4: There is no significant statistical impact of the Owners' equity **on the** return on assets (ROA) **at** $p \leq 0.05$.

Ho2-5:There is no significant statistical impact of the Branches **on the** return on Owners' equity (ROE) **at** $p \leq 0.05$.

Ho2-6:There is no significant statistical impact of the ATMs **on the** return on Owners' equity (ROE) **at** $p \leq 0.05$.

The Theoretical Framework 5 -1 Concept

Banks are the main engine of the economy, and they play a large role in financial intermediation between surplus and deficit units. The Jordan's banking system comprised of the Central Bank of Jordan and the licensed banks. However, licensed banks include all Jordanian banks and non-Jordanian banks (commercial and Islamic) operating in Jordan. The banks operating in Jordan are divided as follows in Table 1as at the end of 2016.

Table 1. The Banks Operating In Jordan

	Bank's Name	Established In
	Arab Bank	1930
	Jordan Ahli Bank	1956
	Cairo Amman Bank	1960
	Bank of Jordan	1960
	The Housing Bank	1974
	Jordan Kuwait Bank	1977
	Arab Jordan Investment Bank	1978
	Jordan Commercial Bank	1978
	Invest Bank	1989
	Arab Banking Corp./Jordan	1989
	Union Bank	1991
	Society General bank	1993
	Capital Bank	1996

	Jordan Islamic Bank	1978
	International Islamic Arab Bank	1997
	Jordan Dubai Islamic Bank	2009
	Egyptian Arab Land Bank	1951
	Rafidain Bank	1957
	Citibank	1974
	Standard Charted	2002
	Bank Audi	2004
	National Bank of Kuwait	2004
	Blom Bank	2004
	National Bank of Abu Dhabi	2009
	Al-Rajhi Bank	2011

(Annual Report of the Association of Banks in Jordan, 2016)

Development of the Jordanian Banking Sector

The first bank in Jordan was founded in 1925 by the Ottoman Bank, while the Arab bank was established in 1930. Currently, the number of banks in Jordan is 25 banks. 13 of which are Jordanian commercial banks, 3 Jordanian Islamic banks, 8 foreign commercial banks, and a non-Jordanian Islamic bank (Shabib, 2012, pp 70-72).

Financial Analysis

Financial analysis is one of the most important criteria used to evaluate banks. It is also used to identify the strengths and weaknesses of the banks, assess their competitive position, and manage their assets and liabilities. There are three methods of financial analysis:

1. Vertical Analysis: This involves comparing values that occurred in the same period (year) for each financial statements (income statement, balance sheet statement), such as comparing net sales with net profit in the income statement.

2. Horizontal Analysis: It involves comparing the values that occurred in the same financial statements over the years. It is also called "Analysis of Trends".

3. Financial Analysis: This is the comparison of the items on the income statement and balance sheet statement, or between the items in the same statement (Matar, 2006, pp. 24-25).

Profitability Ratios

This is the most important criteria used to estimate the performance of the bank and measurement of its profitability. They consist of:

Return on Assets

This ratio is also called "Return on Investment." It measures the efficiency of the bank in achieving profits through investment in assets. The higher the ratio, the better. However, the rate is calculated as follows:

Return on Assets = Net Profit after Taxes/Total Assets

Return on Owners' Equity

This ratio measures the return achieved by the bank through the use of Owners' equity and is measured as follows:

Return on Owners' equity = Net Profit after Taxes/Total Owners' equity (Al-Douri & Abu Znad, 2006, pp. 90-91).

Consequently, there are a number of factors that affect profitability. The most important of which are:

1. Assets: Assets are the economic resources owned or controlled for the enterprise and are expected to bring about a flow of future benefits for the enterprise.

2. Owners' Equity: It is the net assets calculated based on the difference between the Total Assets of the company and its Total Liabilities. The Owners' equity is also called “Shareholders' Rights” that consist of paid up capital, reserves, retained earnings, and treasury shares (Matar, 2010, pp. 463-464).

3. Deposits: Clients deposit their money in the banks. The bank deposits are considered to be the most important sources of the bank's funds. The various forms of bank deposits are as follows:

A - Current Deposits: These are deposits or accounts that the customer can withdraw from at any time. Here, the bank gives the customer a check book.

B. Time Deposits: These are deposits that the customer makes and receives interests as a result of depositing the money in the bank. The customer can deposit the funds for specified periods of one month, three months, six months, nine months or one year.

C - Savings Accounts: This account allows a customer to withdraw at any time and then get a small interest in addition to the cash awards.

4. Direct Credit Facilities: The Bank will provide the client a sum of money with an undertaking to pay the amount with its interest and any other receivables in the future. The credit facilities are: loans, advances, current receivables, and credit cards (Shabib, 2015, pp. 230-233).

5. Automated Teller Machines (ATMs): These machines can be deployed in different locations, whether on the wall or independently. They are connected to the computer network of the bank. Customers can use these machines to obtain many services, for example: cash withdrawal, bank inquiry, etc.

The ATM is considered one of the most popular and used electronic channels because its widely spread and gives easy access to banking services. The use of this device started in 1975.

6 - Banking Embranchments: These are the number of bank branches that are geographically spread. The branch is the physical presence of the bank that plays a large role in providing banking services to customers. It ensures direct contact with customers of the bank, and it introduces customers to other benefits of its banking services. In addition, a section of customers, especially older people prefer to deal with the branch because they do not wish to deal with the bank through electronic channels (Al-Shammari, Al-Abdalat, 2008, p. 30, p. 184).

Previous Study

Consequently, there are many studies that investigate the impact of factors on the profitability of banks. The most important of these studies are:

1 –Merhj, et al. (2014) entitled: Determining Factors Affecting the Profitability of Commercial Banks Using Multivariate Analysis.

The research aimed at identifying the factors affecting the profitability of commercial banks and their ranking according to their relative importance and comparison between public and private commercial banks.

The research divided the factors into the external factors (economic, political, monetary policy, etc.) and internal factors such as bank management and bank size.

The most important results of the research were:

1. The profitability of the Syrian commercial banks is influenced by a number of factors that can be classified into two categories: internal factors and external factors.

2. The factors influencing the profitability of commercial banks differ in their relative importance. The most influential factors were: economic and political conditions, resource utilization, legal legislation, and banking controls. On the other hand, the age of the bank and the number of employees were the least influential factors.

The study recommended that there is need to increase the size of credit facilities and to increase the size of banking branches because of their impact on the profits of banks.

2- Alfatli (2014) entitled "The Use of Financial Analysis to Determine Factors Affecting the Profitability of Commercial Banks."

The objective of the research is to analyze the factors affecting the profitability of private banks in Iraq (value of assets, property rights, the size of the medium and the size of employment) through the use of financial analysis. The research adopted descriptive analytical method to study the impact of these factors on profitability.

The most important results of the research were; the size of assets and the size of indebtedness. Thus, it has a significant impact on the profitability of private banks in Iraq. Therefore, the study recommended that there is need for banks to expand in using financial analysis, especially financial ratios to predict profitability as well as the expected risks of the bank in the future.

3- Salman (2013) entitled "Use Of Financial Ratios in Determining the Factors Affecting the Profitability of Commercial Banks"

The problem of the study shows that commercial banks in Iraq need to achieve more profits to expand and progress. This is due to the increase in competition, large investments in the banking sector, and increase in competition through the foreign banks that have a wide experience. So, it is necessary to study the factors affecting the profitability of commercial banks.

The study concluded that the greatest impact on profitability is the size of assets, after this, the size of indebtedness. The study recommended that the banks should increase its credit portfolio, and expand on its investment activities. The banks should not expand in long-term liabilities because of its impact on the customer's confidence and the high benefits of these long-term liabilities.

4- Mohamad Kanan (2014) entitled "The Interest Rate and Its Impact on the Profitability of Commercial Banks."

The problem of the study is that bank deposits represent the bank's major source of funds, while the credit facilities constitute the main source of the bank's revenues. Therefore, the profits of banks are realized mainly through the difference between the interest paid to deposit customers and the interest received from credit facilities customers.

The study aimed at identifying the impact of the interest rate and its impact on the profitability of commercial banks. The study concluded that there is a strong correlation between the debt interest and the income of the bank. There is also an existence of a strong correlation between the debt interest and the expenses of the bank. The study also concluded that there is a strong correlation between net interest income and net profit. The study recommended increasing the size of credit facilities and the banking deposits, especially term deposits and savings accounts.

5- Almashharwi (2007) entitled "Effect of Variables of the Financial Position on the Profitability of Islamic Banks."

This study aimed at identifying the factors that affect the profitability of Islamic banks in Palestine, the sources of funds and their uses. The research adopted an analytical approach to study the relationship between independent variables and dependent variables.

The study concluded that there is a strong relationship between the received returns from financing of public and administrative expenses on profitability, and it recommended that Islamic banks should diversify in methods of financing and attract more saving deposits with lower costs such as savings deposits.

6- Abo Zaiter (2006) entitled “Factors Affecting The Profitability Of Commercial Banks.”

The aim of the study was to study the effect of the factors on the profitability of operating commercial banks in Palestine by using the financial analysis in the study's variables.

The study concluded that there is an inverse relationship between the special provision to the credit facilities and the profitability measured by the return on assets and the return on ownership rights. Also, a good relationship exists between net interest, owners equity, number of employees, and number of branches with the profitability of the bank. The study recommended that banks should diversify their investments to increase profits and reduce risks. Also, they should increase the size of credit facilities because they have a significant impact on increasing the profits of the banks.

Study Method

Methodology of the Study

In this study, the hypotheses were tested, and an answer to the questions of the study was provided. The study relied on descriptive and analytic methods, as well as a field study. With regards to the descriptive method, the study gave an accurate picture of the impact of factors on the profitability of banks in Jordan. Through previous studies, as for the side of the field, the study relied on the reports of the Jordanian central bank and the Association of Banks in Jordan to collect the necessary data to test the hypotheses.

The Population of the Study (Scope of the Study)

The population of the study represents the operating banks in Jordan which offers various banking services to customers. The study made use of the data for the operating banks in Jordan for the period of 2000 to 2015.

Tools of the Study

The tool of the study was the data of the variables of the study for the operating banks in Jordan. This were collected from the annual financial statement of the Jordanian Central Bank and Association of Banks in Jordan for the period of 2000 to 2015.

The Results of Hypotheses Testing Descriptive Statistics

This section contains the results of the study aimed to ascertain the impact of factors on the profitability of banks in Jordan as measured by return on assets and return on owner’s equity.

Furthermore, the study used the Eviews program software to extract the averages, arithmetic mean, and standard deviations of the variables. Thus, the result of the descriptive statistical test is shown in Table 2 and Table 3.

Independent Variables

Table 2. Descriptive Statistics of the Variables

Table 2. Results of Descriptive Statistics of the Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Assets	16	12.913	45.200	27.67644	10.918654
Direct Credit Facilities	16	4.55	19.77	11.4307	5.34838
Deposits	16	8.22	37.90	19.3526	9.64103
Owner's Equity	16	1.38	5.80	3.5029	1.61248
ATM	16	372.00	1488.00	911.5000	375.28620
Branches	16	447.00	786.00	592.1250	124.01230
Valid N (leastwise)	16				

Dependent Variables

Table 3. Descriptive Statistics of the Variables

Table 3. Results Of Descriptive Statistics of the Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Assets	16	.54	2.40	1.2813	.49098
Return on Owners' equity	16	6.90	24.20	11.6413	4.64087
Valid N (leastwise)	16				

Test of the Study's Appropriate Model

Normal Distribution Test

To check how close the data is from a normal distribution, the study used Jarque-Bera's test where the decision rule is to accept the null hypothesis (data followed a normal distribution) if the probability of a test (J-B) is more than 5%.

In Table 4, the result of the normal distribution test showed that the probability (J-B) for all variables is less than 5%. Therefore, this means that all the variables don't follow a normal distribution. To address the problem of non-distribution naturally, the natural logarithm of these variables was taken to approximate its natural distribution.

Table 4. Results of Normal Distribution Test

Jarque-Bera) Test(		
Sig	(J-B)	Variable
0.000	2.522	ROA
0.000	4.411	ROE
0.000	7.801	Branches
0.000	6.589	ATM
0.000	4.714	Owner's equity
0.000	5.851	Total Deposits
0.000	6.515	Direct Credit Facilities
0.000	5.332	Total assets

Table 5. Pearson Correlation of Independent Variables

Total Assets	Direct Credit Facilities	Total Deposits	Owner's Equity	ATM	Branches	Correlation
					3.09E-05	Branches
					1.000000	
				0.160000	-0.002224	ATM
				1.000000	-1.000000	
			0.040000	0.020000	-0.000278	Owner's equity
			1.000000	0.250000	-0.250000	
		0.015000	0.010000	-0.020000	0.000278	Total Deposits
		1.000000	0.408248	-0.408248	0.408248	
	5.760000	0.120000	0.480000	0.240000	-0.003336	Direct Credit Facilities
	1.000000	0.408248	1.000000	0.250000	-0.250000	
0.560000	-1.440000	-0.080000	-0.120000	0.040000	-0.000556	Total Assets
1.000000	-0.801784	-0.872872	-0.801784	0.133631	-0.133631	

Table 6 shows that there is a high correlation between the independent variables. Here, the R value is 99%. Thus, this result shows a linear correlation subscribe problem that requires a Variance Inflation Factor (VIF) test.

Collinearity Test

To solve this problem, the Collinearity Statistics scale was used. It is used to calculate the coefficient (Tolerance) for each variable of the independent variables. In addition, it founded another coefficient (Variance Inflation Factor VIF). This test is a measure of the impact of the correlation between the independent variables. Table 6 shows the value of VIF for all the independent variables which is less than 6. This means that the study model does not contain the interference and subscription problem.

Table 6. The Linear Overlap of the Independent Variables

VIF (ROE)	VIF (ROA)	Variables
2.217	2.213	Branches
2.053	2.041	ATM
2.469	2.477	Owner's Equity
1.512	1.504	Total Deposits
1.330	1.306	Direct Credit Facilities
1.114	1.111	Total Assets

To achieve the purpose of the study, multiple linear regression models were used in the following equations:

$$1 - ROA_t = \alpha + \beta_1 \text{Branches}_t + \beta_2 \text{ATM}_t + \beta_3 \text{Owners equity}_t + \beta_4 \text{AC\_Total Deposits}_t + \beta_5 \text{Direct credit facilities}_t + \beta_6 \text{Total assets}_t + \text{e}$$

ROA: Return on assets
A,E: Regresion Model coefficients

$$2 - ROE_t = \alpha + \beta_1 \text{Branches}_t + \beta_2 \text{ATM}_t + \beta_3 \text{Owners equity}_t + \beta_4 \text{AC\_Total Deposits}_t + \beta_5 \text{Direct credit facilities}_t + \beta_6 \text{Total assets}_t + \text{e}$$

ROE: Return on equity .
A, e: Regression Model coefficients.

6.3. Results of Testing the Hypotheses

Test of the First Hypothesis

Ho1: There is no significant statistical impact of the factors (Assets, Direct credit Facilities, Deposits, Owner's equity, Branches, ATM) on the return on assets (ROA) at p ≤ 0.05.

To test the first hypothesis, we used,multiple regression test. The result in Table 7 shows that there is a significant impact of the factors (Branches, ATM) on the ROA. This, however, shows that there is a good relation because the value of Sig. is less than 0.05. Also, there is no significant impact of the factors (Assets, Direct credit Facilities, Deposits, Owner's equity) on the ROA because the value of Sig. is more than 0.05. In addition, the value of Pearson correlation (R^2) = 53.5%. This result leads to the rejection of the null hypothesis and the acceptance of the alternative hypothesis.

This is due to the fact that these combined factors effects on the profits are measured by return on assets as these factors explain about 53.5% of the change on return on assets. This was due to an increase in the size of assets, direct credit facilities, deposits, and property rights. In contrast, there was an increase in return on assets and return on equity until 2005. After that, there was a decline due to the global financial crisis and increased competition between banks. Also, there is an increase in the adoption of banks to achieve profits for banking services (retail banking) such as: bank transfers, feasibility studies, etc.

Table 7. Results of Multiple Linear Regression Tests

Independent Variables (ROA)		Independent Variables
Sig	Coefficient	
.005	3.157	Branches
.000	4.677	ATM
.429	.807	Owners equity
.859	-.180	Total Deposits
.148	1.506	Direct credit facilities
.751	-.322	Total assets
.001		SIG.
.535		R^2

Ho1-1: There is no significant statistical impact of the Assets in the return on assets (ROA) at p ≤ 0.05.

Table 8. Results of a Simple Linear Regression Test

Independent Variables ROA		Independent Variables
Sig	Coefficient	
.879	.207	Total assets
.002		R^2

To test the first sub hypothesis, we used linear regression test. Thus, the result in Table 8 shows that there is no significant impact of Assets **in the** ROA because the value of Sig. Is more than 0.05. In addition, the value of Pearson correlation (R^2) = 2%. This result leads to the acceptance of the null hypothesis.

This is attributed to the increase in the size of the assets that leads to increase in the ability of the bank to invest, especially in granting the credit facilities and expanding its electronic services which increases the profits of the bank.

Ho1-2: There is no significant statistical impact of the Direct credit Facilities in the return on assets (ROA) at p ≤ 0.05.

Table 9. Results of a Simple Linear Regression Test

Dependent Variables ROA		Independent Variables
Sig	Coefficient	
.279	.607	Direct Credit Facilities
.008		R^2

To test the second sub hypothesis, we used linear regression test. Thus, the result in Table 9 shows that there is no significant impact of Direct Credit Facilities in **the** ROA. This is because the value of Sig. is more than 0.05. In addition, the value of Pearson correlation (R^2) = 8%. This result leads to the acceptance of the null hypothesis.

This was due to an increase in direct credit facilities. In contrast, there was an increase in return on assets until 2005. After that, there was a decline due to the global financial crisis and the increased competition between banks.

Ho1-3: There is no significant statistical impact of the Deposits on the return on assets (ROA) at p ≤ 0.05.

Table 10. Results of a Simple Linear Regression Test

Dependent Variables ROA		Independent Variables
Sig	Coefficient	
.099	.9071	Total Deposits
.091		R^2

To test the third sub hypothesis, we used a linear regression test. Thus, the result in Table 10 shows that there is no significant impact of total deposits in **the** ROA. This is because the value of Sig. is less than 0.05. In addition, the value of Pearson correlation (R^2) = 9.1%. This result leads to the acceptance of the null hypothesis.

Consequently, this was due to an increase in direct credit facilities. In contrast, there was an increase on return on assets until 2005. After that, there was a decline due to the global financial crisis and increased competition between banks. In addition, there was an unused money.

Ho1-4: There is no significant statistical impact of the Owners' equity on the return on assets (ROA) at p ≤ 0.05.

Table 11. Results of a Simple Linear Regression Test

Dependent Variables ROA		Independent Variables
Sig	Coefficient	
.399	.907	Owner's equity
.031		R^2

To test the fourth sub hypothesis, we used linear regression test. Thus, the result in Table 11 shows that there is no significant impact of Owners' equity in **the** ROA. This is because the value of Sig. is more than 0.05. In addition, the value of Pearson correlation (R^2) = 3.1%. This result leads to the acceptance of the null hypothesis.

This is attributed to the increase in the size of Owners' equity, which lead to an increase in the ability of the bank to invest, especially in granting the credit facilities and expanding its electronic services. Due to global crisis and competition between banks, the market share will decrease.

Ho1-5: There is no significant statistical impact of the Branches on the return on assets (ROA) at p ≤ 0.05.

Table 12. Results of a Simple Linear Regression Test

Dependent Variables ROA		Independent Variables
Sig	Coefficient	
.000	3.1857	Branches
.421		R^2

To test the fifth sub hypothesis, we used linear regression test. Thus, the result in Table 12 shows that there is a significant impact of branches in **the** ROA. This is because the value of Sig. is Less than 0.05, and the value of Pearson correlation (R^2) = 42.1%. This result leads to the acceptance of the alternative hypothesis.

This is attributed to the increase in the number of branches of the bank which leads to increase in the profits of the bank by increasing the size of bank deposits. Therefore, increasing the number of customers is reflected automatically in the increase in profits (ROA).

Ho1-6: There is no significant statistical impact of the ATM in the return on assets (ROA) at p ≤ 0.05.

Table 13. Results of a Simple Linear Regression Test

Dependent Variables ROA		Independent Variables
Sig	Coefficient	
.001	3.103	ATM
.36		R^2

To test the sixth sub hypothesis, we used linear regression test. Thus, the result in Table 13 shows that there is a significant impact of ATMs in **the** ROA. This is because the value of Sig. is Less than 0.05 and the value of Pearson correlation (R^2) = 36%. This result leads to the acceptance of the alternative hypothesis.

Consequently, this is attributed to the fact that increasing the size of ATMs and the expansion of electronic services leads to a reduction in the cost of providing banking services. However, this lead to an increasing profits (ROA).

6.3.2. Test of the Second Hypothesis

Ho2: There is no significant statistical impact of the factors (Assets, Direct credit Facilities, Deposits, Owner's equity.Branches, ATM) on the return on Owners' equity (ROE) at p ≤ 0.05.

To test the second hypothesis, we used multiple regression test. Thus, the result in Table 14 shows that there is a significant impact of the factors (Total deposits ,ATM, and Branches) in the ROE. However, this shows that there is a good relation because the value of Sig. is Less than 0.05. There is also a significant impact of the factors (Direct credit Facilities, total assets , Owner's equity) on the ROA. This is because the value of Sig. is more than 0.05. In addition, the value of Pearson correlation (R^2) = 62.6%. This result leads to the rejection of the null hypotheses and the acceptance of the alternative hypotheses. This is due to the fact that these combined factors affect profits as measured by the return on owner’s equity. Also, these factors explained 62.6% of the change on return on equity.

This was due to an increase in the size of assets, direct credit facilities, deposits, and property rights. In contrast, there was an increase on return on assets and return on equity until 2005. After that, there was a decline due to the global financial crisis and increased competition between banks. Also, there was an increase in the adoption of banks to achieve profits on banking services fragmentation such as; bank transfers and feasibility studies.

Table 14. Results of Multiple Linear Regression Tests

Dependent Variables ROE		Independent Variables
Sig	Coefficient	
.007	3.023	Branches
.015	2.673	ATM
.871	.165	Owner's equity
.000	-4.879	Total Deposits
.419	.825	Direct credit facilities
.906	.120	Total assets
0.04		SIG.
.626		R^2

Ho2-1:There is no significant statistical impact of the Assets in the return on Owners' equity (ROE) at p ≤ 0.05.

To test the first sub hypothesis, we used linear regression test. Thus, the result in Table 15 shows that there is no significant impact of Assets **in the** ROE. This is because the value of Sig. is more than 0.05. In addition, the value of Pearson correlation (R^2) = 1%. This result leads to the acceptance of the null hypotheses.

This was due to an increase in assets. In contrast, there was an increase in return on assets until 2005. After that, there was a decline due to the global financial crisis and increased competition between banks. In addition, there were unused money.

Table 15. Results of a Simple Linear Regression Test

Dependent Variables ROE		Independent Variables
Sig	Coefficient	
.91	.115	Total assets
.001		R^2

Ho2-2:There is significant statistical impact of the Direct credit Facilities on the return on owners' equity (ROE) at p ≤ 0.05.

To test the second sub hypothesis, we used linear regression test. Thus, the result in Table 16 shows that there is no significant impact of Direct Credit Facilities in **the** ROE because the value of Sig. is more than 0.05. In addition, the value of Pearson correlation (R^2) = 2,9%. This results lead to the acceptance of the null hypothesis.

Table 16. Results of a Simple Linear Regression Test

Dependent Variables ROE		Independent Variables
Sig	Coefficient	
.871	.125	Direct credit facilities
.029		R^2

This was due to an increase in direct credit facilities. In contrast, there was an increase on the return on owner's equity until 2005. After that, there was a decline due to the global financial crisis and increased competition between banks.

Ho2-3: There is no significant statistical impact of the Deposits on the return on assets (ROE) at p ≤ 0.05.

Table 17. Results of a Simple Linear Regression Test

Dependent Variables ROE		Independent Variables
Sig	Coefficient	
.000	-6.265	Total Deposits
.581		R^2

To test the third sub hypothesis, we used linear regression test. Thus, the result in Table 17 shows that there is no significant impact of total deposits in **the** ROE because the value of Sig. is less than 0.05. In addition, the value of Pearson correlation (R^2) = 58.1%. This result leads to the acceptance of the alternative hypothesis.

Ho2-4: There is no significant statistical impact of the Owners' equity on the return on assets (ROE) at p ≤ 0.05.

Table 18. Results of a Simple Linear Regression Test

Dependent Variables ROE		Independent Variables
Sig	Coefficient	
.671	.265	Owner's equity
.01		R^2

To test the fourth sub hypothesis, we used linear regression test. Thus, the result in Table 18 shows that there is no significant impact of Owners' equity on **the** ROE. This is because the value of Sig. is more than 0.05. In addition, the value of Pearson correlation (R^2) = 1%. This result leads to the acceptance of the null hypothesis.

This is attributed to the increase in the size of Owners equity that increases the ability of the bank to invest, especially in granting the credit facilities and expanding electronic services. Due to global crisis and competition between banks, the market share will be decreased.

Ho2-5: There is no significant statistical impact of the Branches on the return on assets (ROE) at $p \leq 0.05$.

Table 19. Results of a Simple Linear Regression Test

Dependent Variables ROE		Independent Variables
Sig	Coefficient	
.000	3.153	Branches
.501		R^2

To test the fifth sub hypothesis, we used linear regression test. Thus, the result in Table 19 shows that there is a significant impact of branches in **the** ROE. This is because the value of Sig. is less than 0.05. In addition, the value of Pearson correlation (R^2) = 50.1%. This results lead to the acceptance of the alternative hypothesis.

This is attributed to the increase in the number of branches of the bank that leads to an increase in the profits of the bank by increasing the size of bank deposit. Therefore, increasing the number of customers is reflected automatically in the increase in profits (ROE).

Ho2-6: There is no significant statistical impact of the ATM on the return on assets (ROE) at $p \leq 0.05$.

Table 20. Results of a Simple Linear Regression Test

Dependent Variables ROE		Independent Variables
Sig	Coefficient	
.01	2.153	ATM
.281		R^2

To test the sixth sub hypothesis, we used linear regression test. Thus, the result in Table 20 shows that there is a significant impact of ATM in **the** ROE. This is because the value of Sig. is less than 0.05. In addition, the value of Pearson correlation (R^2) = 28.1%. This result leads to the acceptance of the alternative hypothesis.

This is attributed to the fact that increasing the size of ATMs and the expansion of electronic services leads to a reduction in the cost of providing the banking service, thus increasing the profits (ROE).

Summary and Concluding Remarks

This study attempts to investigate the impact of a combination of factors on the profitability of banks in Jordan as measured by return on assets and return on Owners' equity. Thus, the findings of the study can be summarized below**:**

1-There is a significant statistical impact of the factors (Assets, Direct credit Facilities, Deposits, Owner's equity, Branches, ATM) together with the return on assets.

2-There is no significant statistical impact of the Assets and the direct credit Facilities and Deposits Owners' equity individually on the return on assets (ROA).

3- There is a significant statistical impact of the Branches and ATM individually on the return on assets (ROA) .

4-There is a significant statistical impact of the factors (Assets, Direct credit Facilities, Deposits, Owner's equity, Branches, ATM) together with the Owners' equity (ROE).

5-There is no significant statistical impact of the Assets and the Direct Credit Facilities and Deposits Owners' equity individually in the Owners' equity (ROE).

6- There is a significant statistical impact of the Branches, ATMs, and the Deposits individually in the Owners' equity (ROE).

Recommendations

However, the study has recommended the following:

1. The Banks in Jordan should increase diversification in the investment to increase their profitability.

2 – There is the need for the banks to expand in electronic banking services to increase profits and reduce costs.

3 – The banks in Jordan should think about the merging with each other so as to increase the credibility of those banks and increase its market share.

4 - The banks in Jordan should strengthen the owners' equity by increasing the size of compulsory and voluntary reserves and retained earnings. This leads to increase in the confidence of customers in the bank because the bank's relationship with its customers is based on trust. The banks should also increase their ability to invest, especially in granting the credit facilities.

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Appendix No 1. Financial data for banks in Jordan

ROE	Return On Assets (Roa)	Branches	ATM	Owner's equity	Total Deposits	Direct credit facilities	Total assets	Year
7.5%	0.54%	462	377	1.377	8.224	4.546	12.913	2000
12,7%	0.92%	464	372	1.436	8.721	4.949	14.153	2001
12.8%	0.89%	471	534	1.545	9.367	5.13	15.119	2002
13.3%	0.95%	449	577	1.623	9.97	5.262	15.701	2003
15.9%	1.35%	447	617	1.874	11.56	6.189	17.821	2004
24.2%	2.4%	506	663	2.253	13.12	7.744	21.086	2005
18.1%	2.28%	516	724	3.183	14.6	9.762	24.23	2006
12.63%	1.6%	559	846	3.523	16	11.3	25.06	2007
10.68%	1.36%	593	944	3.803	18.1	13.2	29.8	2008
7.94%	1.03%	619	1023	4.374	21.25	12.4	30.9	2009
8.04%	1.05%	666	1129	4.856	23.07	13.94	33.7	2010
6.9%	0.86%	702	1219	4.7	24.9	15.1	36.1	2011
8.24%	1.41%	722	1291	4.95	27.7	17.4	37.34	2012
8.28%	1.31%	742	1346	5.25	29.2	18.3	40.7	2013
9.88%	1.27%	770	1434	5.5	35.96	17.9	43	2014
9.17%	1.28%	786	1488	5.8	37.9	19.77	45.2	2015