

IMPACT OF ECONOMIC AND FINANCIAL DETERMINANTS AFFECTING THE PROFITABILITY OF JORDANIAN ISLAMIC BANKS (2012 -2019)

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ABSTRACT

This study aimed to examine the economic and financial determinants that affect the profitability of Jordanian Islamic banks, as this study was conducted on the three Jordanian Islamic banks during the time period (2012-2019). The study sample consists of three Islamic banks listed on the ASE and using the Panel data method.

Where the study included the variable dependent on the profitability of Islamic banks measured by (average) return on assets and return on property right and independent variables of external determinants which are Inflation, money supply and internal determinants of capital adequacy and liquidity.

The study included the dependent variable represented by the profitability of Islamic banks measured by (the rate of return on assets and the rate of return on equity) and the independent variables represented by the economic determinants, namely: inflation, money supply, and the financial determinants represented by the adequacy of capital and liquidity.

The most prominent findings of the study are the presence of a negative and significant effect of the capital adequacy ratio, the presence of a positive and significant effect on the liquidity ratio, a positive and significant effect of the money supply and the absence of a significant effect of the inflation rate on the profitability of Islamic banks the rate of return on equity (ROE), in addition to the absence of a significant effect of the adequacy ratio. The absence of a significant effect of the liquidity ratio, the absence of a significant effect of the inflation rate, and the absence of a significant effect of the money supply on the profitability of Islamic banks the rate of return on assets (ROA).

Keywords: Islamic Banks, Profitability, Economic and Financial Determinants, ROA, ROE.

INTRODUCTION

The banking sector in the system of modern economies is one of the most important influential sectors in the world, because of its function: attracting savings at the domestic and Foreign level and repurposing them through the provision of loans to individuals and companies in all their fields, therefore, the banking sector is the most connected link between borrowers and savers (Wahid, 2013). This study seeks to look at the most important economic and financial determinants that will reduce the profitability of Jordanian Islamic banks during the period

between “2012-2019”. The study sample consists of three Islamic banks listed on the ASE (Al-Qudah, 2020; Al-Qudah et al., 2020).

The study goals to reveal the determinants that can impact the profitability of Jordan Islamic banks in general in Jordan, and to enable the Islamic banking sector to improve the level of profits by identifying the factors that can affect them (Abu Zaiter, 2006). The main objective of Islamic banking institutions is to enhance their commercial performance and strengthen their financial position in order to face the strong competition between local banks, traditional foreign banks, and Islamic banks.

Problem Statement

Today, Islamic banks face significant challenges, due to the fact that they operate in an economically, politically, and socially volatile ecosystem (AlQudah, 2020). The main objective of Islamic banking institutions is to enhance their business performance and strengthen their financial position in order to counter the strong competition between local banks, traditional foreign banks, and Islamic banks, also competing with adherence to the provisions of Islamic law and achieving high returns and profits (Hasan et al., 2013). Profitability is vital to maintain the stability of the banking system and enhance the confidence of depositors and investors in the efficiency of the bank's management in investing its deposits and financial savings in making profits. Since banks ' performance can be measured by the number of profits they earn in light of these above matters, it is of utmost importance to identify these internal and external determinants that affect the profitability of Islamic banks.

The Objectives of the Study

This study aims to reveal the determinants that can impact the profitability of Jordan Islamic banks in general in Jordan, and to enable the Islamic banking sector to improve the level of profits by identifying the factors that can affect them. This helps them by submitting a proposal to improve the ability of Islamic banks to compete with traditional banks and promote the concept of Islamic banking (Shehata, 2018).

1. Determine the impact of the economic determinants of inflation, money supply on the profit of Jordanian Islamic banks.
2. Determine the impact of financial determinants of capital adequacy and liquidity on the profit of Jordanian Islamic banks.
3. To arrive at a set of recommendations that help Islamic banks to identify the economic and financial factors most affecting profitability as measured by return on equity and return on assets (Akl, 2008).

The Significant of the Study

Islamic banks nowadays face great challenges, because they operate in a rapidly fluctuating ecosystem, economically, politically and social, The main objective of Islamic banking institutions is to enhance their commercial performance and strengthen their financial position in order to face the strong competition between local banks, traditional foreign banks and Islamic banks, (Abdo et al., 2021) Competition increase also while adhering to the provisions of Islamic law and achieving high returns and profits,

This study helps Islamic banks in Jordan to improve their performance and profitability to be able to withstand and compete efficiently in the Jordanian banking system (Athanasoglou et al., 2008).

Study Hypotheses

Therefore, this leads to consider the main hypotheses.

H₀₁ There is no statistically significant impact of the financial determinants of the level of ($\alpha \leq 0.05$) on the profitability of the Jordanian Islamic banks listed on the ASE.

H₀₁₋₁ There is no statistically significant impact of the capital adequacy ratio of the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE.

H₀₁₋₂ There is no statistically significant impact of the liquidity ratio of the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE.

H₀₂ There is no statistically significant impact of the economic determinants at the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE.

H₀₂₋₁ There is no statistically significant impact of the inflation rate of the level of ($\alpha \leq 0.05$) of the inflation rate on the profit of Jordan Islamic banks listed on the ASE.

H₀₂₋₂ There is no statistically significant impact of the cash supply rate of the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE.

LITERATURE REVIEW

Maysa'a & Rasmiah (2020), This study aimed to examine the effect of reserves on profitability, liquidity, and risk in both Islamic and conventional banks in Jordan over the period 2006-2017. The sample included thirteen conventional banks and two Islamic banks. The study concluded that there is no statistically significant difference between the profitability of conventional banks and Islamic banks. With respect to the liquidity and risk, the study shows that the Islamic banks are likely to be higher liquidity and lower risk compared to the conventional banks. Then Ali et al. (2018), explain the main objective is to study the effect of macro-economic variables on profitability Islamic banks in Brunei. Been driving the profit through return on asset (ROA) and return on equity (ROE). Information was obtained from the annual records of the IMF. Fixed impacts panel regression technology is accepted to inductor the impact of each variable on the profit of Brunei Islamic banks. The results revealed that the Gross Domestic Product growth rate and money supply have a significant and positive impact on profit so far oil prices. Abu Wadi explained (2017) this study aimed to identify the factors that affect the profitability of Jordanian Islamic banks, this study was conducted on Jordanian Islamic banks, which includes three banks, this study was conducted during the period (2014-2009), and this study was concerned with determining the behavior of the dependent variable in Islamic banks-return on equity or shareholders - other independent variables Of the most notable results, a direct correlation and statistical significance between profit of Jordan Islamic banks and independent variables, namely the size of the bank, and capital, and GDP, the growth rate of the money supply. A statistically significant inverse relationship was found between Islamic banks on the one hand and the influence of banks on the other, as well as the lack of a statistically significant relationship between Islamic banks and the inflation rate. Other Study identified the

impact of excess liquidity on the financial performance of Islamic banks. The study examined the Islamic Bank of Jordan for the period 1990-2013 and the Arab Islamic Bank for the period 2000-2013, using statistical analysis to test the impact of the independent variables of total liquidity on return on assets and return on property rights. This study concluded that a financial market must exist in order to eliminate and invest cash surpluses and achieve returns for Islamic banks. Islamic banks must also be taken into account in relation to legislation promulgated by the central bank.

METHODOLOGY

This study was conducted on Jordan's three Islamic banks during the time period (2012-2019) using the Panel data method (Bourke, 2016).

Test hypotheses model (General Statistics Department website).

$$\text{Rate of return on assets ROA}_{it} = \beta_0 + \beta_1 \text{Cadeit} + \beta_2 \text{Liqit} + \varepsilon_{it} \dots\dots(1)$$

$$\text{Rate of return on equity ROE}_{it} = \beta_0 + \beta_1 \text{Cadeit} + \beta_2 \text{Liqit} + \varepsilon_{it} \dots\dots\dots(2)$$

Table 1			
HAUSMAN TEST RESULTS			
Correlated Random Impacts - Hausman Test Formula : unnamed Test cross-section random impacts			
Test report	Chi-Sq. Statistic	Chi-Sq. d.f.	Probability
Cross-section random	26.771194	2	0.4871
Cross-section random impacts test formula: Dependent Variable: ROE Method: Panel Least Squares Sample: 2012 2019 Periods included: 8 Cross-sections included: 3			

Source: researchers set up based on EVIEWS output.

Table 1 shows the results of the Haussmann test, where it is shown by the moral value (0.48) which is greater than 5% and therefore we accept the nothingness hypothesis that the random impact model is appropriate for estimation (Ben Ali, 2018).

Table 2				
RANDOM IMPACT MODEL ESTIMATION RESULTS				
Dependent Variable: ROE Method: Panel EGLS (Cross-section random effects) Sample: 2012 2019 Periods included: 8 Cross-sections included: 3				
Variable	Coefficient	Std. Error	t-Statistic	Probability
C	-0.081507	0.08159	-0.998985	0.3297
LIQ	0.031893	0.008901	3.58305	0.0019
CADE	-0.292459	0.030685	-9.530943	0
R-squared	0.839806	F-statistic		52.4243
Adjusted R-squared	0.823787	Probability (F-statistic)		0

Source: researchers set up based on EVIEWS output.

Table 2 displays the results of the random impact. Having a negative and moral impact of the capital adequacy ratio on the profit of Jordan Islamic banks. The impact factor is 0.29 -. Any that *ceteris paribus*, the 1% of the change in the capital adequacy ratio leads to 0.29 - change in the profit of the Jordan Islamic banks. Thus H01 is there is no statistically significant impact of the capital adequacy ratio of the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE. Accept the substitute hypothesis there is statistically significant impact of the capital adequacy ratio of the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE.

As can be seen from the value of the coefficient of determination that 83% of the changes in the profit of Jordan Islamic banks listed on the ASE. Returns to both the capital adequacy ratio and the liquidity ratio. H01 is therefore rejected stating that there is no statistically significant impact of the financial determinants of the level of ($\alpha \leq 0.05$) on the profitability of the Jordanian Islamic banks listed on the ASE. Acceptance of the substitute hypothesis that there is statistically significant impact of the financial determinants of the level of ($\alpha \leq 0.05$) on the profitability of the Jordanian Islamic banks listed on the ASE.

As shown by the probability of F (0.0000) the model is valid to measure the causal relationship between independent variables and dependent variables.

Table 3			
HAUSMAN TEST RESULTS			
Correlated Random Effects - Hausman Test			
Formula : unnamed			
Test cross-section random impacts			
Test report	Chi-Sq. Statistic	Chi-Sq. d.f.	Probability
Cross-section random	6.101639	2	0.0473
Cross-section random impacts test equation:			
Dependent Variable: ROA			
Method: Panel Least Squares			
Sample: 2012 2019			
Periods included: 8			
Cross-sections included: 3			

Source: Researchers set up based on EVIEWS output.

Table 3 shows the results of the Hausman test, where it is shown by the moral value (0.04) which is less than 5% and therefore we reject the nothingness hypothesis that the random impact model and accept the substitute hypothesis that the static impact model is suitable for estimation (Blond, 2013). Table 4 shows the results of the fixed impact.

Table 4				
FIXED IMPACT MODEL ESTIMATION RESULTS				
Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 2012 2019				
Periods included: 8				
Cross-sections included: 3				
Variable	Coefficient	Std. Error	t-Statistic	Probability
C	-0.0148	0.03459	-0.4272	0.6743
LIQ	0.00189	0.00395	0.47909	0.6376
CADE	0.02392	0.01525	1.56797	0.1343
R-squared	0.36681	F-statistic		5.60692
Adjusted R-squared	0.22611	Probability (F-statistic)		0.03037

Source: Researchers set up based on EVIEWS output.

The lack of effect of moral capital adequacy ratio on the profit of Jordan Islamic banks. The probability value was 0.13. H01 is therefore accepted there is statistically significant impact of the liquidity ratio of the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE. Reject the substitute hypothesis that there is no statistically significant impact of the liquidity ratio of the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE. 36% of the changes in the profit of Jordan Islamic banks listed on the ASE are reflected in the value of the coefficient of determination. It returns to both the capital adequacy ratio, and the liquidity ratio. H01 is therefore rejected stating that there is no statistically significant impact of the financial determinants of the level of ($\alpha \leq 0.05$) on the profitability of the Jordanian Islamic banks listed on the ASE. Acceptance of the substitute hypothesis that there is no statistically significant impact of the financial determinants of the level of ($\alpha \leq 0.05$) on the profitability of the Jordanian Islamic banks listed on the ASE.

As shown by the probability of F (0.0303), the model is valid for measuring the causal relationship between independent and dependent variables.

$$\text{Rate of return on assets } ROA_{it} = \beta_0 + \beta_1 \text{In}_{it} + \beta_2 \text{Ms}_{it} + \varepsilon_{it} \dots\dots\dots(3)$$

$$\text{Rate of return on equity } ROE_{it} = \beta_0 + \beta_1 \text{In}_{it} + \beta_2 \text{Ms}_{it} + \varepsilon_{it} \dots\dots\dots(4)$$

Table 5			
HAUSMAN TEST RESULTS			
Correlated Random Effects - Hausman Test			
Formula : unnamed			
Test cross-section random impacts			
Test report	Chi-Sq. Statistic	Chi-Sq. d.f.	Probability
Cross-section random	0	2	0.8734
Dependent Variable: ROE			
Method: Panel Least Squares			
Sample: 2012 2019			
Periods included: 8			
Cross-sections included: 3			

Source: Researchers set up based on EVIEWS output.

Table 5 shows the results of the Hausman test, where it is shown by the moral value (0.87) which is greater than 5% and therefore we accept the nothingness hypothesis that the random impact model is appropriate for the estimate.

Table 6				
RANDOM IMPACT MODEL ESTIMATION RESULTS				
Dependent Variable: ROE				
Method: Panel EGLS (Cross-section random effects)				
Sample: 2012 2019				
Periods included: 8				
Cross-sections included: 3				
Variable	Coefficient	Std. Error	t-Statistic	Probability
C	-1.0399	0.45255	-2.2979	0.0319
INF	0.0025	0.00267	0.93567	0.3601
MS	0.25473	0.10005	2.54591	0.0188
R-squared	0.29506	F-statistic		4.39482
Adjusted R-squared	0.22792	Probability (F-statistic)		0.02545

Source: Researchers set up based on EVIEWS output.

Table 6 displays the results of the random impact. The absence of a moral impact of the inflation rate on the profit of Jordan Islamic banks. The probability value was 0.36. H01 is therefore accepted there is statistically significant impact of the inflation rate of the level of ($\alpha \leq 0.05$) of the inflation rate on the profit of Jordan Islamic banks listed on the ASE. Reject the substitute hypothesis that there is no statistically significant impact of the inflation rate of the level of ($\alpha \leq 0.05$) of the inflation rate on the profit of Jordan Islamic banks listed on the ASE.

A positive and moral impact of the cash supply rate on the profit of Jordan Islamic banks. The impact factor is 0.25. That is, with the persistence of other factors, a 1% increase in the cash supply rate leads to a change in the profit of Jordan Islamic banks by 0.25%. H02 is therefore rejected there is no statistically significant impact of the cash supply rate of the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE. Accept the substitute hypothesis that there is statistically significant impact of the cash supply rate of the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE.

29% of the changes in the profit of Jordan Islamic banks listed on the ASE are reflected in the value of the coefficient of determination. Return to both the cash supply rate, and the inflation rate. H01 is therefore rejected stating there is no statistically significant impact of the economic determinants at the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE. The substitute hypothesis is that there is no statistically significant impact of the economic determinants at the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE.

As can be seen by the probability of F (0.0254). The model is valid for measuring the causal relationship between independent variables and dependent variables.

As shown in Table 6, the results of the Hausman test are shown by the moral value (0.04), which is less than 5%. We therefore reject the nothingness hypothesis that the random impact model and accept the substitute hypothesis that the static impact model is appropriate for estimation.

Table 7			
HAUSMAN TEST RESULTS			
Correlated Random Effects - Hausman Test			
Formula : unnamed			
Test report	Chi-Sq. Statistic	Chi-Sq. d.f.	Probability
Cross-section random	0	2	0.9275
Dependent Variable: ROA			
Method: Panel Least Squares			
Sample: 2012 2019			
Periods included: 8			
Cross-sections included: 3			

Source: researchers set up based on EVIEWS output.

Table 7 shows the results of the test Hausman. Where it is shown by the moral value (0.92) which is greater than 5% and therefore we accept the nothingness hypothesis that the random effect model is appropriate for estimation.

Table 8 displays the results of the random impact. The absence of a moral impact of the inflation rate on the profit of Jordan Islamic banks. The probability value was 0.12. H01 is therefore accepted there is statistically significant impact of the inflation rate of the level of ($\alpha \leq 0.05$) of the inflation rate on the profit of Jordan Islamic banks listed on the ASE. Reject the substitute hypothesis that there is no statistically significant impact of the inflation rate of the level of ($\alpha \leq 0.05$) of the inflation rate on the profit of Jordan Islamic banks listed on the ASE.

Table 8				
RANDOM IMPACT MODEL ESTIMATION RESULTS				
Dependent Variable: ROA				
Method: Panel EGLS (Cross-section random effects)				
Sample: 2012 2019				
Periods included: 8				
Cross-sections included: 3				
Variable	Coefficient	Std. Error	t-Statistic	Probability
C	0.15818	0.1338	1.18223	0.2503
INF	-0.0012	0.00079	-1.5761	0.1299
MS	-0.0329	0.02969	-1.107	0.2808
R-squared	0.10645	F-statistic		3.25084
Adjusted R-squared	0.02135	Prob(F-statistic)		0.03674

Source: Researchers set up based on EVIEWS output.

As can be seen by the value of the coefficient of determination that 10% of the changes in the profit of Jordan Islamic banks listed on the ASE. Due to both the inflation rate, and the cash supply rate H01 is therefore rejected which states that there is no statistically significant impact of the economic determinants at the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE. The substitute hypothesis is that there is no statistically significant impact of the economic determinants at the level of ($\alpha \leq 0.05$) on the profit of Jordan Islamic banks listed on the ASE.

As can be seen by the probability of F (0.036). The model is valid for measuring the causal relationship between independent variables and dependent variables.

RESULTS

The most prominent results of the study are the negative and moral impact of the capital adequacy ratio. Having a positive and moral effect of the liquidity ratio, having a positive and moral effect of the cash supply rate on the profit of Jordan Islamic banks. The absence of a moral effect of the inflation rate on the profit of Jordan Islamic banks. In addition, there is no moral impact of capital adequacy ratio, there is no moral impact of liquidity ratio, there is no moral effect of the inflation rate and there is no moral effect of cash supply rate on the profit of Jordan Islamic banks.

DISCUSSION

The discussion in this study on several points the most important. The management of Islamic banks should make more effort to reduce liquidity by diversifying investment opportunities as they have a prominent role in increasing profitability rates. Future studies take more financial and economic variables affecting the profit of Jordan Islamic banks. The management of Islamic banks should take into account economic factors in preparing the bank's future strategic plans.

CONCLUSION

The researchers highlighted the results of the study, which is the negative and moral impact of the capital adequacy ratio. In the case of the positive, there was a positive and moral effect of the liquidity ratio, as well as a positive and moral effect of the money supply rate on the

profits of Islamic banks and employment in Jordan. In the other case, the researchers explained through the results the economic impact that there is no moral effect of the inflation rate on the profits of Islamic banks operating in Jordan. In addition, there is no moral effect of the capital adequacy ratio, there is no moral effect of the liquidity ratio, and at an important point there is no moral effect of the inflation rate, and there is no moral effect of the money supply rate on the profits of Islamic banks operating in Jordan.

Practical Implication

More focus is now diverted to the Islamic banks because of high competition in the banking operations and privatization in comfortable for clients. Hence we believe that this research examines the economic and financial determinants providers and at the same time can be the profitability for Jordanian Islamic banks (Fccio, 2015). The result of the research can be used to improve the moral impact of capital adequacy ratio; there is no moral impact of liquidity ratio. This study can be a small contribution or a deep insight towards improved and achieved profitability in developed or underdeveloped countries' banks. To the banks, it might be better so this study exerts some economic and financial determinants on Islamic banks. Islamic banks of Jordan should focus on a significant dimension of the economic and financial determinants that achieve profitability because otherwise gave a positive effect response regarding the profitability for the banks (Tamimi & Obeidat, 2012).

Theoretical Contribution

This research has a theoretical contribution in the form of developing a model for profitability for Jordanian Islamic banks to be more effective in achieving economic and financial determinants. The developed model is designed from the previous studies and empirical findings collected through the surveys from our study. In addition, the study contributes to the literature in the sense that it provides knowledge about economic and financial determinants, which can affect profitability for Jordanian Islamic banks and how it has evolved. Also, tested and measured over time. In addition, the study highlights factors that will be very effective in economic and financial determinants importance on every factor which can lead to profitability. In the end, theoretically, the study contributes a lot of future research that somebody can come up with new more dimensions for economic and financial determinants that achieve profitability sustainability (Zubaidi, 2014).

Limitations

One of the most important limitations we faced in this study is that there are no Islamic banks during the study period. The study period was excluded in 2020 as a result of the impact of the profitability and liquidity of these banks due to the corona pandemic because it is soother negative to give accurate results.

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