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# **Evaluating the Profitability of the Islamic Banks in Jordan**

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#### **Abstract**

This aim of this study is to recognize the most important internal and external variables that contributed toward the profitability of the Islamic banks in Jordan over the period 1997-2006. Various internal and external variables that have been extensively reported in the earlier literature as major determinants of profitability are regressed against the employed profitability measures. Our results indicate that the most important internal determinants of profitability are the total deposit, cost of deposits, total expenditures, Mudaraba loans and restricted investment deposits. On the other hand, the main external determinants are the money supply and market share. The obtained results were robust for various regression models employed. Thus, our recommendation for Islamic banks stakeholders in Jordan, mainly the management is to consider the consequences of these variables when formulating their various operational and investment strategy.

# 1. Introduction

Islamic banking refers to a system of banking activities that is consistent with Islamic Sharia's principles. The main objective of Islamic banks is to achieve a greater profit thorough financing in the form of risk and profit-and-loss sharing and fairness participation (Masood and Ashraf, 2012). In

particular, Islam prohibits the collection and payment of interest and prohibits investing in businesses that are considered unlawful or against Islamic values. Thus, given the prohibition of interest on Islamic banking, Islamic banks execute their banking activities through profit and loss sharing in forms of Mudaraba and Musharaka and through other Islamic mode of financing that include Deferred payments sales, Bai 'Salam (purchase with deferred delivery), Ijara and Ijara wa iqtina' (leasing and purchase leasing), and Murabaha.

Islamic banking has grown rapidly and gained universal acceptance. Nowadays, Islamic banks are existed in all parts of the world, and are looked upon as a viable alternative system, which have many things to offer (Sufian and Noor, 2009). As for Islamic banking activity over the world, Sole (2007) reports that Islamic banking has experienced growth rates of 10–15 percent per annum over the last decade, and has been moving into an increasing number in the conventional financial systems. Despite the rapid growth of Islamic banks, few studies discussed the Islamic banking (Masood et al., 2011). For instance, Islamic financial institutions currently have existence in more than fifty countries. As for the Islamic banking in Jordan, a country under this study, Islamic banking activity has started in 1978 when the Jordan Islamic Bank for Finance and Investment was established. Later on, the Islamic International Arab Bank has initiated its business in 1998.

To evaluate the Islamic banking experience in Jordan and explore the determinants of profitability of these banks over the period of 1997-2006, we will employ various internal and external determinants that were extensively employed in the earlier literature. The internal determinants of profitability that will be examined include total loans, total deposits, cost of deposits, total expenditures, Mudaraba loans and restricted investment deposits. As for the external determinants, we will evaluate the impact of the following variables: Market share, rediscount interest rate, money supply (M2) and consumer price index. In our analysis, we will divide the variables that have positive impact from those with negative impact. This enables the management to enhance the impact of positive variables and mitigate the impact of negative ones. This study, as far as we know, is among the fewest studies that explored the determinants of Islamic banking profitability in Jordan.

In addition to this introduction, this study includes four more sections. Section two presents a brief revision for the relevant literature. Section three exposes how various internal and determinants of profitability are defined and measured and presents the study methodology. Finally, section four presents our main findings and concludes.

## 2. Literature Review

In this section, we will review the banking literature that examined the profitability of banking worldwide with some focus on Islamic banking activity in Islamic countries with the aim of recognizing the most important determinants of profitability that are documented in the earlier literature.

The determinants of bank profitability can be divided into internal and external factors. The internal factors are those within the control of bank and these can be classified into financial statements variables and non-financial statement factors such as number of branches and number of employees. Mullineaux (1978) and Hester and Zoellner (1966) argued that the balance sheet structure has a significant impact on profitability. In general, the assets items are argued to have positive association with profitability while liability items have an adverse effect on profitability.

On the liability side, deposits are supposed to have significant impact on banks' profitability. Heggested (1977) examined the profitability of commercial banks and reports that time and savings deposits have negative impact on profitability. Smirlock (1985) found a significant positive relationship between demand deposits and profits. Concerning the Income statement items, Bourke (1989), and Molyneux and Thorton (1992) found that capital and staff expenses are positively related to bank's profitability. Non-financial statement variables, on other hand, include the number of branches, status of branches, location and bank's size. Mullineaux (1978) found a positive impact for bank's size on profitability.

On the other hand, the external determinants of profitability are those factors that are beyond the control of bank such as competition, regulation, interest rate, economic condition and inflation. These also include market concentration, market share, ownership, money supply, inflation and bank size. Studies of Pelzman (1968), Vernon (1971), Emery (1971), Mullineaux (1978) and Smirlock (1985) concluded that the regulations have a significant impact on banks' profitability. Emery (1971) examined the effect of competition on banks' profitability and find insignificant association between the two variables. Heggested (1977) and Mullineaux (1978) argued that market share is inversely related to profitability. Emery (1971), Vernon (1971), Fraser and Rose (1972) and Smirlock (1985) further examined the effect of concentration on profitability and the findings of these studies were mixed and inconclusive. Bourke (1989) conducted a study on concentration and other determinants of bank profitability and concluded that there is a positive relationship between Banks profitability and liquidity.

Haron (1996) examined few profitability determinants of Islamic banks. The researcher found that the deposits alongside capital adequacy and liquidity show statistical considerable effect on Islamic banks profitability. Later on, in 2004, Haron conducted another study to examine the internal variables of Islamic banks and concluded that the profitability of Islamic banks is statistically significant affected by the internal variables (Haron, 2004). Demirgüç-Kunt and Huizinga (1998) examined the determinants of banks' interest margins and profitability utilizing data for 80 countries during the 1988-1995. They argued that the well-capitalized banks have higher net interest margins and are more profitable. Banks with relatively high non-interest earning assets are less profitable, and banks that rely largely on deposits for their funding are less profitable. Finally, they found that Inflation is associated with higher realized interest margins and higher profitability.

Among the studies that have examined the Islamic banking profitability, Bashir (2001) assessed the performance of Islamic Banks by employing a linear equation that relates performance to a variety of indictors across eight Middle Eastern countries between 1993 and 1998. The results of the study indicated that high leverage and large loans to asset ratios has led to higher profitability levels. The results also addressed the importance of customer and short-term funding, non-interest earning assets and overhead in promoting Islamic bank profitability.

Alrashdan (2002) examined the determinants of Jordanian's banks profitability for the period 1985- 1999. The author found that the return on asset (ROA) is positively related to liquidity and total assets while ROE is negatively related to financial leverage and cost of interest. Finally, the authors found insignificant relation between interest rate risk and ROA.

Hassan and Bashir (2003) also examined the determinants of profitability of Islamic banks worldwide utilizing bank level data over 1994-2001. The study concluded that the loan to total assets ratio, when interacted with gross domestic product (GDP) per capita, has a significant positive impact on various profitability measures employed including net interest margin, return on assets and return on equity. The study also recognized that the ratio of total liabilities over total assets has significant positive impact on profitability. On the other hand, the total asset was found to have negative and significant impact on profitability. The study finally concluded that both favorable macroeconomic environment and higher growth rate of GDP seemed to have a strong positive impact on the performance measures.

Naceur (2003) examined the determinants of Tunisian banks' profitability over the period 1980-2000. The author concludes that the capital ratio, loans and stock market development have positive impact on profitability while the bank's size has a negative impact. Finally, macro-economic indicators such inflation and growth rates are found to have no impact on profitability. (Bashir, 2003) conducted a study on Islamic banks in the Middle East to examine the impact of economic environment and internal variable on the performance of Islamic banks. Bashir found a positive relationship between profitability and capital adequacy of Islamic banks. Moreover, the researcher found statistically significant relationship between the inflation and the profitability of Islamic banks in the Middle East.

The evaluation of Islamic banking performance was also examined in an analogous manner to studies, which were conducted on conventional commercial banks. In this regard, Haron (2004) used panel of data and regression to explore the effects of internal and external determinants on Islamic

Bank profitability. His findings indicate that liquidity and capital ratio have a positive impact on return on asset but these are negatively related to return on equity. Bank size, but not the market share, is found to have a significant effect on various profitability measures employed. Finally, the result found that money supply has a significant positive on various measures of profitability employed in the study.

The influence of both internal and external determinants of profitability of Islamic banks in selected countries are evaluated using time series techniques of cointegration and error-correction mechanism are evaluated by Haron and Azmi (2004). The results showed that liquidity and consumer price index are positively correlated with the profitability measures employed. The results also showed that various variables of deposit structure are positively correlated with profitability. As for assets structure variables, both funds invested in profit sharing and funds invested in mark-up were found to have a significant but inverse relationship with profitability measures.

Alkassim (2005) examined the determinants of profitability of Islamic and conventional banking in the GCC Countries between 1997 and 2004. The study concludes that total asset have a negative impact on profitability of conventional banks but have a positive impact on profitability of Islamic banks. Total equity are found to have a negative impact on conventional banks' profitability while tend to have a positive impact on Islamic banks' profitability. A total loan, for both types of banking, is found to have a positive impact on profitability. Finally, deposits are found to have a positive impact on profitability for conventional but have a negative impact for Islamic banking.

As for the most recent literature, Bolda and Verma (2006) identified the key determinants of profitability of public sector banks in India utilizing stepwise multivariate regression model on temporal data from 1991-92 to 2003-04. Their analysis indicated that the variables such as non-interest income, operating expenses, provision and contingencies and spread have significant relationship with net profit. Liu and Hung (2006) examined the relationship between service quality and long-term profitability of Taiwan's banks. Their analysis revealed a strongly positive link between branch number and long-term profitability. Furthermore, average salaries are detrimental to banks' profit.

Athanasoglou et al. (2008) examined the effect of bank-specific, industry-specific and macroeconomic determinants of Greek banks' profitability s over 1985-2001. They found that capital is important in explaining bank profitability and the increased exposure to credit risk lowers profits. Additionally, labor productivity growth has a positive and significant impact on profitability, while operating expenses are negatively linked to it. The estimated effect of size does not provide evidence of economies of scale in banking. Macroeconomic control variables, such as inflation and cyclical output affect the performance of the banking sector.

Asma et al. (2011) studied the Islamic banks profitability determines in Malaysia. They examined several determinant variables such as banks size, liquidity and adequacy. They found that the banks size is the only variable that effects in the profitability of the Malaysian Islamic banks. Finally, Masood and Ashraf (2012) conducted a study that examined the profitability determinant of Islamic banks of different countries over the period of 2005-2010. They found in their study that the assets size and management efficiency lead to positive and significant relationship with banks profitability.

Based on this brief survey for the earlier literature, we can broadly divide the determinants of banks profitability in to two groups: internal factors and external factors. The internal determinants of profitability are those factors within the control of bank management and can be classified into two categories: Financial statement variables that are directly included in the balance sheet and income statement, and non-financial statement variables such as number of branches and number of employees. External determinants of bank profitability, on other hand, are those factors that are not under the control of management, such as competition, regulation, interest rate, economic condition and inflation. In evaluating banks profitability, most studies conducted on Islamic banks employed the same profitability determinants of conventional banks and the same methodology. In our present study on the determinants of profitability of Islamic bank operating in Jordan over 1997-2006, we will employ the most important variables based on the earlier empirical evidence reported on conventional and Islamic banks.

# 3. Data and Methodology

This section reports the data and methodology employed to determine the profitability of the banks under study. Relevant data was collected from various financial statements and annual reports of Islamic banks operating in Jordan over the period 1997-2006. The study sample consists of Islamic banks in Jordan namely: Jordan Islamic Bank for Finance and Investment and Islamic International Arab Bank over the period 1997-2006. We have focused on these banks given they are the only Islamic banks operating in Jordan over the study period.

The dependent variable of the study is return on assets (ROA) which is utilized as a profitability measure given this ratio has been extensively used as profitability proxy particularly in the earlier studies including Haron (2004), Hassan and Bashir (2003), Bashir (2001). Demirgüç-Kunt and Huizinga (1998), Naceur (2003), Alkassim (2005) and Hassoune (2002)

As for the internal determinants of profitability, the following twelve internal bank characteristics are widely used in banking literature and seem to be the most important determinants of Islamic banking profitability.

First, the bank size, measured by total assets is employed. Previous studies have found a positive relationship between size and bank profitability. Shahimi et al. (2005) argued that the size is the most obvious factor, which related to the level of non-traditional Islamic banking activities. Hassan and Bashir (2003) found that total asset had a negative and significant correlation with ROA. Alkassim (2005) found that size measured has a negative relationship with profitability for conventional banks and a positive relationship for Islamic banks.

The second internal determinant employed is the capital ratio, measured by total equity as a percent of total assets. This variable is a structural ratio and has long been a valuable tool for assessing the soundness and safety of banks. Banks generally prefers to hold the amount of capital that is just sufficient to support bank operations. Hassan and Bashir (2003) found that the capital ratio had a positive relation with bank's profitability. Haron (2004) found capital ratio had a significant positive correlation with ROA. Bashir (2001) found that the capital ratio had positive relationships with Islamic banks profitability measures.

The third internal determinant employed is the loan ratio, as measured by total loans as percent of total assets (LOANTA). This ratio measures the liquidity of bank assets and related to bank lending activity. Previous studies on Islamic banks found a positive relationship between loan ratio and profitability Bashir (2001) found loan ratio had a positive relationship with profitability. Alkassim (2005) found loan ratio for Islamic banking have a positive relationship with profitability, which shows that lending improves profitability.

The fourth employed determinant is total deposits over total assets Ratio. Total deposits of customers, banks and financial institutions as a percent of total assets ratio is a financial leverage ratio. Previous studies assert the importance of deposits in promoting bank's profitability Bashir (2001) and Bashir and Hassan (2003) used deposits ratio to total assets in their study and found the importance of deposits in promoting bank profits. Alkassim (2005) found deposits had a positive relation with profitability for conventional and a negative relation for Islamic banking.

The fifth employed internal determinants of profitability is the cost of deposit ratio. Alrashdan (2002) included cost of deposits (interest expense as a percent of total deposits) as an independent variable in his study and found a negative relationship between interest expense and ROA.

The sixth internal determinant of profitability employed is the total expenditure as percent of total assets. This include all bank expenses except the cost of unrestricted investment deposits in Islamic banks. Total expenditures over total assets (overhead ratio) measures the efficiency of bank management in controlling operating expenses and examines the impact of expenses on bank profitability indicators. A high overhead ratio is expected to impact performance negatively because efficient banks are expected to operate at lower costs. Haron (2004) found that expenditures and profitability indicators had a positive relationship, Bashir (2001) and Hassan and Bashir (2003) found the importance of overhead expenses in promoting bank's profits.

The seventh internal determinant of profitability is the Murabaha Loans ratio, defined as the total of funds invested in mark-up principle loans (Murabaha loans) as a percent of total assets. Haron (2004) and Haron and Wan Azmi (2004) found that Murabaha loans have a significant inverse relationship with profitability indicators.

The eighth internal determinant employed is the Mudaraba Loans, defined as total funds invested in profit-sharing modes (Mudaraba or Musharaka) as a percent of total assets. Haron (2004) and Haron and Wan Azmi (2004) argue that both funds invested in profit-sharing or in mark-up have a significant inverse relationship with profitability indicators.

The ninth internal determinant employed is the ratio of direct-shared investments to total assets. The direct-shared investments to total assets represents joined financed investments from unrestricted investment deposits and from the bank own funds; these investments include investments in securities, affiliates, subsidiaries, real estate, commodities, investment funds and financial portfolios. Previous study of Haron (2004) found that wherever relationship does exist, asset items are negatively related to the profitability measures.

The tenth internal determinant employed is the current account ratio, defined as the total deposits in current and on demand accounts as a percentage of total assets. The previous study conducted by Haron (2004) found that current accounts have a significant positive relationship with ROA.

The eleventh internal determinant employed is the Unrestricted Investment Deposits Ratio, defined as total unrestricted investment deposits in savings and time deposits accounts as a percent of total assets. Haron (2004) and Haron and Wan Azmi (2004) found that Time deposits have a significant positive relationship with profitability indicators.

Finally, the Restricted Investment Deposit ratio as percent of total asset is employed. Restricted investment deposits include Muqardha bonds (Sukuk) and investment deposits, those deposits appear outside the balance sheet against their special investments, Islamic bank deal with these deposits as trustee against a specific management commission. Shahimi et al., (2005) study found that banks with higher levels of fee-generating activities tend to have higher net income margin.

As for the external determinants of profitability, Islamic banking researchers have used various external external determinants of Islamic banking profitability. External factors are those factors that are beyond bank management control and include the effect of inflation, interest rate, the market and economic condition on banking profitability.

In this study, and in line with Haron (2004), and Haron and Azmi (2004), we will employ four major external determinants of profitability.

First, the market share ratio is employed and measured by the total bank deposits (excluding inter-banks deposits) as percent of the banking system total deposits. Market share consider the impact of competition in banking sector on banking profitability. Haron and Wan Azmi (2004) found that there is no significant relation between market shares with return on equity, but it is highly correlated with the level of total income received by Islamic banks.

Next, the rediscount interest rate (INT) which is declared by Central Bank of Jordan is employed. Haron (2004) found that there is a significant positive relation between rediscount rate and ROA.

Third, the growth in the broad money supply (M2) is employed. Haron (2004) confirmed that there is no significant relation with ROA, but it is highly correlated with the level of total income received by the Islamic banks.

Finally, the consumer price index (CPI), measured by the percent increase in CPI is employed. Haron and Azmi (2004) found that consumer price index has a significant positive relation with profitability indicators and confirmed that the four external determinants of profitability discussed are highly correlated with level of income received by the Islamic banks.

In the next step of our analysis, we calculated the correlation matrix among internal variables to count for possible collinearity among the determinants employed. The determinants that are found to be highly correlated with other determinants are excluded in the forthcoming analysis and the variables that entered in the next step of analysis include only six variables: total loans, total deposits, and cost of deposits, total expenditures, Mudaraba loans and restricted investment deposits.

In the next section, various multiple regressions are employed to recognize the most important profitability determinants for Islamic banks operating in Jordan over the study period.

# 4. The Determinants of Islamic Banking Profitability

In this section, the various internal and external determinants of profitability discussed earlier will be regressed against our profitability measures with the aim of recognizing the most determinants of profitability of the banks under study over the study period.

The dependent variable ROA is regressed on the internal determinants of profitability Table 1 reports the results of regression ROA on these determinants.

**Table 1:** Multiple regression result of ROA on internal determinants of profitability

Variables	Coefficient	Standard Error	t-Statistics	P-Value
Total loan ratio	0.02395	0.01695	1.41	0.181
Total deposits ratio	-0.03530	0.01673	-2.11	0.055*
Cost of deposits ratio	0.6782	0.2875	2.36	0.035*
Total expenditures ratio	-0.9849	0.3140	-3.14	0.008*
Mudaraba loans ratio	-0.2924	0.1405	-2.08	0.058*
Restricted investment deposits ratio	0.017472	0.007450	2.35	0.036*

R-Sq = 74.2%

R-Sq(adj.) = 62.4%

On this basis, all the variables apart from the total loans, listed in table 1, seem to be statistically significant determinants of Islamic bank. In other words, five out of the six internal profitability determinants are important: these are total deposit ratio, cost of deposit ratio, total expenditures ratio, Mudaraba loan ratio and Restricted investment deposits ratio. The following are summary of comparing our findings with the earlier literature with an attempt to justify our findings.

First, the total loans to total assets ratios are found to have insignificant impact on return on assets (ROA) of Islamic banks. While previous studies on Islamic banking found a positive significant relationship between loan ratio and profitability. Our result could be justified on the basis that delayed payment of Islamic based loans makes the bank the main bearer of the lost opportunity cost.

As for the total deposits to total assets, our results show a significant negative relationship between this measure and ROA. The earlier studies findings were inconsistent were some studies report the total deposits as a main determinants while the other report insignificant impact for this variable. Our findings might indicate that the Islamic banks in Jordan were not able to invest available funds in proper investment tools or lack of such tools in the domestic market.

Concerning the cost of deposit, table 1 above show a significant positive relationship between cost of deposit and ROA, in contradiction with the findings documented in the earlier literature. The main indication of this finding is that Islamic banks in Jordan were not operating under the pressure of interest rate fluctuations and the rate of return on unrestricted investment deposits is consistent with the earnings of Islamic banks operating in emerging markets.

As for the ratio of total expenditures to total assets, table 1 above shows a significant negative relationship between this variable and ROA, in contraction to the findings reported in earlier literature. The implications of this result is that Islamic banks operating in Jordan could increase further their levels of profitability by either increase income sources or decreases expenses without losing their customer base or their market share.

Concerning Mudaraba loans, our results are consistent with previous studies found that Mudaraba loans have inverse relationship with various profitability indicators. The implications of this result is that Islamic banks who work in countries with Hybrid banking system (Islamic and conventional banks) as Jordan face a serious problem with Mudaraba loans because the borrowers

<sup>\*</sup> Significant at 10% level.

prefer to transact with conventional banks when they expect high return for their project while they prefer Islamic banks when they expect low return for their project.

Our results show that there is positive relationship between ROA and restricted investment deposits, which is line with the results of Shahimi et al. (2005) who found that Islamic banks with higher levels of fee generating activities tend to have higher net income margin.

Second, the dependent variable ROA is regressed on the external determinants of profitability of Islamic banks operating in Jordan. Table 2 reports the results of regression ROA on these determinants.

**Table 2:** Regression result of ROA on external determinants of profitability

Variables	Coefficient	Standard Error	T-Statistics	P-Value
Market share	-0.082*	0.031	-2.690	0.017*
Rediscount interest rate	0.048	0.053	0.910	0.375
Money supply growth	0.071*	0.033	2.120	0.051*
Consumer price index (CPI)	0.095	0.072	1.320	0.207

R-Sq = 53.3%

R-Sq(adj.) = 40.8%

On this basis, the most important external determinants of profitability seem to be the money supply (M2) and the market share. The following present brief discussions for our findings in comparison with the earlier literature.

First, the market share is found to be negatively correlated with ROA, which contradicts the findings of Haron and Azmi (2004). Our results also show a positive but insignificant impact of rediscount interest rate on ROA for the Islamic banks under study. In this regard, Haron (2004) report a significant positive relationship between rediscount interest rate and ROA.

Second, As for the impact of money supply growth (M2), our results show a significant positive relationship between this variable and ROA. Our results here are inconsistent with those of Haron (2004) who found insignificant impact for this variable on ROA.

Finally, our results agree with those of Haron and Azmi (2004) regarding the consumer price index (CPI), which is found to have positive, though insignificant impact on ROA. Furthermore, our result indicates that the profitability of Islamic banks in Jordan is not sensitive to inflation, which is line with the results of Bashir (2003) who found statistically significant positive relationship between the inflation and the profitability of Islamic banks in the Middle East.

Some of the studies that have been conducted in the literature are inconsistent with some of our results such as Alrashdan (2002), (Asma et al., 2011) and (Masood and Ashraf, 2012) studies. Alrashdan (2002) found insignificant relation between interest rate risk and ROA. (Asma et al., 2011) found that the banks size is the only variable that effects in the profitability of the Malaysian Islamic banks. (Masood and Ashraf, 2012) found in their study that the assets size and management efficiency lead to positive and significant relationship with banks profitability.

To summarize our findings: five important internal determinants of profitability for Islamic Banking in Jordan were found: total deposits, cost of deposits, total expenditures, Mudaraba loans and restricted investment deposits. The study found a significant positive relationship between Islamic banking profitability in Jordan and cost of deposits and restricted investment deposits, and significant negative relationship with total deposits, total expenditures and Mudaraba loans. The relationship between ROA and total loans is positive but it is insignificant. Two external determinants of profitability for Islamic banking in Jordan were found in this study, namely money supply (M2) and market share. The study found significant negative relationship between Islamic banking profitability in Jordan and market share and found a significant positive relationship between Islamic banking profitability in Jordan and money supply (M2). The relationship between ROA and rediscount interest rate and consumer price index (CPI) is positive but insignificant.

<sup>\*</sup> Significant at 10% level.

# 5. Conclusion and Recommendations

This study employed the most widely employed internal and external determinants of banks profitability in the earlier literature with the aim of recognizing those determinants that shape the profitability of Islamic banks over the period 1997-2006. Our results show that the most important internal determinants were total deposits, cost of deposits, total expenditures, Mudaraba loans and restricted investment deposits. In particular, our results show a positive impact for cost of deposits, restricted investment deposits and total loans on the banks profitability though the impact of total loan is statistically insignificant. On the other hand, a negative correlation is existed between total deposits, total expenditures and Mudaraba loans on one hand and on the banks profitability on the second hand.

As for the external determinants of profitability of Islamic banks under study, our findings demonstrate that money supply (M2) and market share have a significant positive impact on the banks profitability levels. Other external determinants of profitability are found to have positive but insignificant impact on profitability including the rediscount interest rate and consumer price index (CPI). In line with the previous studies, determining the most important factors of profitability in Islamic banking activity is supposed to help banks' stakeholders especially the managers and regulatory authorities to improve the sector soundness by boosting the impact of positive factors and lessening the impact of the negative factors.

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