

THE IMPACTS OF CAPITAL STRUCTURE ON BANKING PROFITABILITY: A CASE STUDY OF UAE ISLAMIC BANKS

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ABSTRACT

This study aims to analyze the correlation and impact of capital structure on the performance of six Islamic banks in the United Arab Emirates—Abu Dhabi Islamic Bank, Dubai Islamic Bank, Al Hilal Bank, Sharjah Islamic Bank, Emirates Islamic Bank, and Ajman Bank—over the period 2019–2024. Two capital structure indicators (total liabilities to total assets and total liabilities to equity) and two profitability indicators (return on total assets and return on equity) were examined. The findings reveal an inverse correlation both between the capital structure indicators and between the profitability indicators. Furthermore, total liabilities to total assets have a direct positive influence on profitability, whereas total liabilities to equity shows an inverse impact. These results provide valuable insights into the role of capital structure in banking performance within the UAE Islamic banking sector.

KEY WORDS: Capital Structure, Total liabilities on total assets, Total Liabilities on Equity, Return on Assets, Return on Equity.

THE PURPOSE OF THE STUDY

The present study aims to find the influence of capital structure on bank performance of the six Islamic banks of the United Arab Emirates, namely Abu Dhabi Islamic Bank, Dubai Islamic Bank, Al Hilal Bank, Sharjah Islamic Bank, Emirates Islamic Bank, Ajman Bank over the period 2019 to 2024.

METHODOLOGY

The study was conducted in the Islamic banking community operating in the United Arab Emirates, comprising six Islamic banks, for the period from 2019 to 2024. The financial indicators for the study were extracted from the banks' annual reports.

Dependent Variable.

Return on Assets (ROA) = Net income ÷ total assets

Return on Equity (ROE) = Net income ÷ total equity

In Dependent Variables

Total liabilities on total assets (LOA) = total liabilities ÷ total assets

Total Liabilities on Equity (LOE) = Total Liabilities ÷ total Equity

Models

$ROA = \alpha + \beta_1 LOA + \beta_2 LOE$

$ROE = \alpha + \beta_1 LOA + \beta_2 LOE$

Where: α : the constant, β : the regression coefficient

LITERATURE REVIEW

The impact of financial structure on bank performance has been the subject of numerous research in different nations. Financial structure and bank performance were shown to be positively correlated by some authors and negatively by others.

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Abbadi and Abu-Rub (2012) studied the impact of the financing structure on performance in Palestinian financial institutions. The financing structure was measured by three indicators: total deposits to total assets, total loans to total assets, and total loans to total deposits. The study measured performance by return to total assets, return to equity, and market value. The study proved the existence of a negative relationship between the third indicator and both bank profits and market value. A positive relationship was also observed between market value and return to assets, Adesina, et al (2015) studied the impact of capital structure indicators on the financial performance of ten banks in Nigeria, researcher Anarfo (2015) studied the impact of capital structure on the performance of banks in Ghana. The study concluded that there is a negative relationship between capital structure and bank performance. The study also concluded that capital structure does not determine bank performance, but rather bank performance determines capital structure.

Gohar and Ur Rehman (2016) studied the impact of capital structure on the performance of banks in the Karachi Stock Exchange in Pakistan for a period of five years. The financing structure was measured by three indicators: total debt to total equity, long-term debt to total equity, and short-term debt to total equity. The dependent variable was measured by three indicators: the spread ratio, return on assets, and earnings per share, Goyal (2013) studied the relationship between capital structure and performance of public sector banks in India for the years 2008 to 2012. Longterm debt to capital, shortterm debt to capital, and total debt to capital were used to measure the independent variable, which is capital structure. Return on equity, return on total assets, and earnings per share were used to measure the dependent variable, which is performance.

Maduane and Tsauroi (2016) studied the impact of capital structure on the performance of the banking sector in South Africa. The study concluded that capital structure is the main determinant of the profitability of banks in South Africa, Mehar (2018) studied the impact of capital structure as an independent variable and measured it by the total debttoequity index, longterm debttoequity, and shortterm debttoequity index. Bank performance was used as a dependent variable and measured by three indicators: the spread ratio, return on assets, and earnings per share.

The researchers AlSaedi and Raheem (2024) studied the impact of capital structure and performance through two stages. The first stage examined the impact of capital structure on the performance of Islamic banks, and the second stage examined the determinants of capital structure for Islamic banks in the Gulf Cooperation Council.

Hafeez, M. M. et al (2018) studied the impact of capital structure on the performance of Islamic banks in Asian countries, namely Pakistan, Jordan, Bahrain and Egypt. The equity indicators, equity multiplier, debt ratio, and total debt to equity were used. The return to total assets and return to equity indicators were used to measure the performance variable for the years from 2007 to 2016. The study found a direct relationship between the equity multiplier and debt ratio indicators and the return to total assets indicator, and an inverse relationship between the equity index and the return to total assets indicator.

Hoque, H. and Liu, H. (2022) examined the extent to which the capital structure of Islamic banks differs from that of conventional banks. The study found that Islamic banks have greater regulatory capital than conventional banks, but their ability to respond to risks is weaker than that of conventional banks, Meero (2015) studied the relationship between capital structure and banking performance. In his study, he compared conventional and Islamic banks in the Gulf

countries. He used three indicators to measure capital structure: total debt to total assets, equity to total assets, total debt to equity, and bank size expressed as total assets. The return to total assets and return to equity indicators were used as measures of banking performance.

Siraj, K. K. and Pillai, S. (2012) compared the banking performance of conventional and Islamic banks in the Gulf Cooperation Council countries for the period from 2005 to 2010, Ibrahim, S. SH. (2019) studied the relationship between the financing structure and banking performance of a group of Iraqi private banks. Three indicators of the financing structure were used: total debt to capital, bank size expressed as total assets, and asset growth rate. Performance was expressed by two indicators: return to total assets and return to equity. The study concluded that there is no significant impact of any of the independent variables on the return on assets, while the total debt to capital indicator has a positive impact on the return on equity.

Financing Structure Indicators

The components of the financing structure are determined based on a set of financial indicators to measure the amount of money provided by owners compared to the money provided by creditors. This method is the most common analysis method in the business world, and is a means of revealing the extent of consistency of relationships between the elements of the financing structure. These indicators are as follows: -

- 1- The equity on total assets indicator, which indicates the extent to which owners' rights contribute to financing the investment activities of banks Al-Hamdan and Al-Qudah (2013), The increase in this indicator is a protection for depositors' money, but its increase more than required leads to a decrease in the return to equity indicator, which is not desired by owners. Therefore, bank managements usually try to maintain this indicator within reasonable rates.
- 2- Total liabilities on total assets indicator: This indicator reflects the extent to which financing provided by creditors contributes to the process of financing the bank's assets Feldman and Libman (2007). This indicator is called the debt index Qantaqji, (2021).
- 3- Total Liabilities on Equity indicator: This indicator shows the extent to which banks rely on the money of others in financing their assets compared to the money provided by the owners Al-Badri and Abdul Sahib (2023), and that an increase in this indicator leads to an increase in the return on shareholders' equity indicator.

The Concept and Indicators of Profitability

Profitability is an important indicator for measuring the financial stability of the bank, because the ability of banks to achieve profits makes them more competitive, which in turn reflects the efficiency of banks in practicing their activities, and makes those entities more able to withstand crises and financial shocks Al-Banna and Hamid (2020).

Profitability indicators are among the most important and widely used financial indicators in measuring and evaluating the financial performance of all commercial organizations, including banks. They are derived from financial statements. These ratios represent the relationship between financial statement items such as the balance sheet and income statement for the purpose of revealing the strengths and weaknesses in the bank's performance, and examining the bank's ability to achieve profit from its activities. These are defined as a set of indicators that measure the bank's ability to achieve a final return Mazhour and Al-Shammari (2021).

These indicators are also important tools for understanding expected financial results and trends, because maximizing value is the ultimate goal of any bank, and therefore we find that it designs its strategies and activities to achieve this goal Al-Kaabi and Al-Jabouri (2021). Profitability

indicators focus on measuring and evaluating the bank's ability to achieve profits from banking operations or through assets. Profitability indicators are important indicators from the point of view of both equity holders and investment depositors, and they are a guarantee for the bank and its ability to continue and grow Muhammad (2022). These indicators include the following:

1. Return on Assets (ROA) This indicator is calculated by dividing profit by total assets, and measures the profit earned for each monetary unit of assets Saeed and Saeed (2016), and expresses the bank's ability to generate returns from the process of investing funds. The higher this indicator is, the more it indicates the efficiency of the bank's management in optimally exploiting its resources, and vice versa. It is calculated using the following equation Ariff & Iqbal (2011).

2- Return On Equity (ROE) This indicator links net profit to the private capital owned by the bank. The higher this indicator is, the more effectively the bank uses capital and the greater its ability to generate returns and profits from capital Ali and Shenit(2018). This indicator is important not only for the bank's management, but also for shareholders, lenders, depositors, and all parties dealing with it because it increases confidence in dealing with the bank.

FINDINGS AND ANALYSIS

The Pearson correlation coefficient was extracted for the indicators extracted to measure the study variables. The table below shows that the correlation coefficient between the financing structure indicator, represented by total liabilities on total assets, and the two profitability indicators, represented by return on total assets and return on equity, was inversely positive. The correlation coefficient values were -0.549 and -0.502, meaning that an increase in the total liabilities on total assets indicator leads to a decrease in the profitability indicators.

TABLE 1
Correlation Table

		LOA	LOE	ROA	ROE
LOA	Pearson Correlation	1	.984**	-.549**	-.502**
	Sig. (2-tailed)		.000	.001	.002
	N	36	36	36	36
LOE	Pearson Correlation	.984**	1	-.639**	-.595**
	Sig. (2-tailed)	.000		.000	.000
	N	36	36	36	36
ROA	Pearson Correlation	-.549**	-.639**	1	.990**
	Sig. (2-tailed)	.001	.000		.000
	N	36	36	36	36
ROE	Pearson Correlation	-.502**	-.595**	.990**	1
	Sig. (2-tailed)	.002	.000	.000	
	N	36	36	36	36
**. Correlation is significant at the 0.01 level (2-tailed).					

The table 1 shows that the correlation coefficient between the financing structure indicator, represented by total liabilities on equity, and the two profitability indicators, represented by return on total assets and return on equity, was inversely positive. The correlation coefficient values were -0.639 and -0.595, meaning that an increase in the total liabilities on total assets indicator leads to a decrease in the profitability indicators.

TABLE 2
Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate		
						F Change	Sig. Change F
1	.777 ^a	.604	.580		.02232	25.166	.000
a. Predictors: (Constant), Ind1, Ind2							

The R-Square was 60%, which represents the amount of variance in the dependent variable that can be explained by the independent variable. The standard error of the estimate was relatively low at 0.02232, which enhances the accuracy of the model.

TABLE 3
Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.806	.980		-3.882	.000
	Ind2	5.159	1.280	2.451	4.032	.000
	Ind1	-.099	.020	-3.050	-5.018	.000
a. Dependent Variable: dep1						

The analysis of variance test revealed that the model as a whole was statistically significant, with the value of $F = 25.166$ at a probability of 0.00, which is less than the significance level of 0.05. This indicates the existence of a statistically significant relationship between the financing structure indicators and the profitability indicator represented by the return to total assets.

The results also showed that the constant in the model was -3.806 with a probability value of 0.00, which indicates its significance. The value of the regression coefficient for the indicator of total liabilities on total assets was 5.159, meaning that an increase in the indicator of total liabilities on total assets by one unit leads to an increase of 5.159 in the indicator of return on total assets. The standard beta coefficient was 2.451, which reflects a strong impact of the independent variable. The probability value of the independent variable was 0.00, which indicates that its impact is statistically significant.

The regression coefficient value for the total liabilities on equity ratio was -0.099, meaning that an increase in the total liabilities on equity ratio by one unit leads to a decrease of -0.099 in the return on total assets ratio. The standard beta coefficient was -3.050, reflecting a strong impact of the independent variable. The probability value of the independent variable was 0.00, indicating that its impact is statistically significant.

TABLE 4
Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate		
						F Change	Sig. Change F
1	.755 ^a	.570	.544		.023623	21.839	.001
a. Predictors: (Constant), Ind1, Ind2							

The R-Square was 57%, which represents the amount of variance in the dependent variable that can be explained by the independent variable. The standard error of the estimate was relatively low at 0.023623, which enhances the accuracy of the model.

TABLE 5
Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-40.811	10.378		-3.932	.001
	Ind2	55.040	13.547	2.575	4.063	.001
	Ind1	-1.030	.209	-3.128	-4.936	.001
a. Dependent Variable: dep2						

The analysis of variance test revealed that the model as a whole was statistically significant, with $F = 21.839$ at a probability of 0.001, which is less than the significance level of 0.05. This indicates a statistically significant relationship between the financing structure indicators and the profitability indicator represented by the return on equity.

The results also showed that the constant in the model was -40.811 with a probability value of 0.001, which indicates its significance. The value of the regression coefficient for the indicator of total liabilities on total assets was 55.040, meaning that an increase in the indicator of total liabilities on total assets by one unit leads to an increase of 55.040 in the indicator of return on equity. The standard beta coefficient was 2.575, which reflects a strong impact of the independent variable. The probability value of the independent variable was 0.001, which indicates that its impact is statistically significant.

The regression coefficient value for the total liabilities on equity ratio was -1.030, meaning that a one-unit increase in the total liabilities on equity ratio leads to a decrease of -1.030 in the return on total assets ratio. The standard beta coefficient was -3.128, reflecting a strong impact of the independent variable. The probability value of the independent variable was 0.001, indicating that its impact is statistically significant.

CONCLUSION

Through the results, it was concluded that the correlation coefficient was inverse between the indicators used to measure the independent variable, represented by the total liabilities on total assets indicator, and the total liabilities on equity indicator, and between the two indicators used to measure the dependent variable, represented by the return on total assets indicator and the return on equity indicator.

We find that this inverse relationship was due to the fact that a large proportion of these liabilities are investment deposits and bonds issued by these banks, and that these liabilities entail costs for the banks, and that the large size of these liabilities is accompanied by high costs paid by these banks on these liabilities, and that high costs lead to lower profitability indicators, and therefore these banks must balance between funding sources and the costs they pay on these sources.

As for the influence relationships, the higher the first indicator of the financing structure indicators, the higher the profitability indicators. Thus, the influence relationship is a direct relationship. As for the relationship between the second indicator of the financing structure

indicators, we find that it has achieved an inverse influence relationship with the profitability indicators.

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