

## Does the financial performance of Islamic banks outperform that of conventional banks in Pakistan?

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<b>Article History:</b>	<b>ABSTRACT</b>
<b>Received:</b> 24 Feb, 2023	<b>Purpose:</b> This article investigates the differences in the financial performance of full-fledged Islamic and conventional banks operating in Pakistan. This study also examines the impact of some inter-bank financial factors on the performance of both full-fledged Islamic and conventional banks.
<b>Revised:</b> 25 March, 2023	<b>Design and Methodology:</b> Annual financial data of 7 banks including (4 full-fledged Islamic and 3 conventional) were extracted from the state bank of Pakistan from 2006 to 2019. To investigate the performance differences between Islamic and conventional banks this study adopts Ordinary Least Square methods.
<b>Accepted:</b> 31 March, 2023	<b>Findings:</b> Results of the study show that ROA for both types of banks is not indifferent to each other. However, the ROE of Islamic banks outperforms conventional banks in Pakistan. The results of the inter-bank factors indicate that LDR has a significant and negative impact on the performance of conventional banks, whereas positive in the case of Islamic banks. The result of the number of employees and branches suggests that opening new branches and recruiting new employees will positively affect the performance of Islamic banks in Pakistan.
	<b>Implications:</b> These results are beneficial for policymakers of both full-fledged Islamic and conventional banks and the investors of the country.
	<b>Keywords:</b> Islamic banking, Conventional banking, Profitability, Pakistan

### 1. Introduction

Banking plays an important role in today's financial world. We cannot think of this new era without banks; they make for financial requirements and the exchange of money between lenders and borrowers (Al-Jarrah and Molyneux, 2007). An Islamic principles-based financial system had to be established because the traditional banking system is insufficient for Muslims. After all, its rules and regulations regularly conflict with Islamic principles (Siddiqi, 2006). The introduction of the Islamic banking system, which later gained international recognition, was done to establish

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economic policies based on the divine law "Shariah" in Islamic states. Islamic banking (IBG) was established in a rural region of Egypt in 1963. The project's success opened the way for a separate market for IBG and finance, and as a result, IBG began to emerge on a moderate scale in the 1970s, and numerous full-fledged Islamic Banks (FFIB) were later established in Arab and Asian nations. More than 80 states currently have active Islamic banks.

Islamic Banking began working in Pakistan from 1977-78. The state bank of Pakistan declared a commission to shift the financial system into a Shariah-based system. For this purpose State Bank of Pakistan made a department of Islamic Banking on 15 December 2003. Resultantly, it has now a vital role in financial and economic welfare in Pakistan based on the rules of Shariah. To uplift this system in Pakistan, Meezan Islamic Bank was the first bank in Pakistan that received a license from the State Bank of Pakistan to work as the first full pledge Islamic bank. Islamic banking shares the same services and products as conventional banking but offers a part in benefits and losses. This concept of a bilaterally beneficial relationship makes the client like the owners (Dar and Presley 2000). This banking system is harmonized completely the Islamic principles and divine law. According to Shariah law, Islamic banking has to abide by the guidelines of Islamic Shariah in all affairs especially, to eliminate Riba. Shariah focuses more on the eradication of interest (Riba) as per the order of the Holly Quran. Another characteristic of Islamic finance is that profit can only be justifiable if the loan risk is acceptable by both the lender and borrower. Further differences between the two classes of banks operating are prested in table 1

This study contributes to the existing literature in the following ways. Firstly, the study examines the firm performance (FP) of full-fledged Islamic (FFIB) and conventional banks (CB). This difference is evaluated based on two different variables ROAA and ROEE, where ROAA shows differences in FP relative to the financial statements and ROEE shows differences in FP relative to the Financial Market. Secondly, the study also investigates the effect of various inter-bank variables such as Management quality, Loan deposit, Bank size, Number of employees, and the number of branches on the FP of FFIB and CB.

The remaining article is designed as such; the second portion demonstrates the literature review, data, and methodology in section three and the others section is analysis and conclusions.

**Table 1. Difference between full-fledged Islamic banks (FFIB) and Conventional Banks (CB)**

Full Pledge Conventional Banking	Full Pledge Islamic Banking
It's mainly based on wordy principles desired by humans and focuses on enhancing benefits with no boundaries.	The Islamic banks aim to maximize the profit they should follow the shariah complaints in designing their products and processes.
Conventional banks follow conventional (interest-based) rules.	Islamic banks follow no interest rules and divide benefits and drop.

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<p>It depends upon a pre-defined limit of interest for customers.</p>	<p>Here benefits are divided from received benefits for the designed time according to its rules.</p>
<p>The relationship between the banks and their customers is one of two types “ Creditors or Debtors”</p>	<p>The relationship between Islamic banks and their clients is based on PLS sharing which encourages the association of economics to believe and shareholding between the debtor, creditor, and other stakeholders.</p>
<p>“The real growth of wealth does not take place, as the money remains in few hands”.</p>	<p>Real growth in the wealth of the society takes place due to the multiplier effect and real wealth goes into the ownership of a lot of hands.</p>
<p>“Due to the failure of the projects the loan is written off as it becomes a nonperforming loan”.</p>	<p>Due to the failure of the project, the management of the organization can be taken over to hand over to better management.</p>
<p>Creditors have the benefit of grip over the business in the cause of interest-based sponsorship as permitted cuts from benefit liable to tax.</p>	<p>Division of benefit is based on the principle of Musharikah which increases tax on the government institution and brings prosperity.</p>
<p>“The nonexistence of goods &amp; services behind the money while disbursing funds creates inflation”.</p>	<p>No expansion of money takes place without the existence of goods &amp; services, thus no inflation is created.</p>
<p>“Because of inflation, businesses increase the prices of their goods &amp; services, to adjust the inflationary effect to the cost of the product”.</p>	<p>Due to control over inflation, the entrepreneur does not charge extra prices.</p>
<p>In shifting of possession, the risk and return come to the consumers.</p>	<p>The possession remains with the same owners and customers are free from the burden.</p>

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## 2. Literature Review

Past research on the FP of economical centers working on free-of-interest rules is confined. The present ones are usually illustrative and rely on easy economic proportions. Based on the differences between FFIB and CB, limited researchers have conducted studies (Moin 2008; Samad 2004; Samad and Hassan 2006; Iqbal 2001). Moin (2008) examined the FP differences between IB and CB in Pakistan for the period 2003-2007. The result of the study shows that IB is less beneficial, safe, and also not sufficiently structured in contrast to CB. Yet no noticeable contrast was found in

the high volume activity between the two types of banks. Samad (2004) conducted a study on the performance differences between IB and CB systems in Bahrain over the period 1991-2001. The result of the study suggests that the two sets of banks have differences only in credit risk. Srairi (2010) investigated the cost and performance differences between interest and noninterest banking in gulf countries over the period 1999-2007. The result of the study shows that IB is better in performance than its counterparts.

Metwally (1997) examined the differences between 15 IB and 15 CB in terms of liquidity, leverage, credit risk, profitability, and efficiency. The result of the study indicates shariah based and conventional banks do differ with respect to liquidity, leverage, and credit risk but not in the case of profitability and efficiency. Islamic law being followed in Muslim societies will probably have a significant impact on many different economic factors. The analysis of the effects of applying Islamic principles may not be best done using conventional economic instruments (whether classical, Keynesian, or neo-classical). These tools indicate that Islamic nations may experience several issues if they rid their economies of any signs of interest, firmly enforce the zakat religious tax, and forgo all forms of speculation. Each one of the customers same benefits and push the biggest shares of their assets the sponsorship non-interest bank is based mainly on the Murahaba tool of finance which seems like the interest ratio relies on the use of markup. Majeed and Zainab, (2021) investigated the differences in the financial ratio of IB and CB in Pakistan. Their study result shows that Islamic banks are better in liquidity and risk management. Salaman and Nawaz, (2018) examined the differences in the performance of IB and CB in Pakistan over the period 2013-2017. The results of their study indicated that in most of the financial ratios, IB outperforms CB. Fayed (2013) conducted a study on the comparative performance between Islamic and conventional banks in Egypt. The research shows that Islamic banks face several hurdles to doing well. Some hurdles are linked to the squabble between the perceptual base and the actual performance of the banks that they do not offer obvious execution for splitting ideas with their customers. His findings indicate the superiority of CB over IB in terms of profitability, liquidity, credit risk management as well as solvency.

## **2.1 Endogenous Variables**

For FP one of the most suggested variables in literature is profitability. It is indispensable because the management of the banks should see whether profit is coming and nicely tackle it or not. To measure the differences in profitability/performance between the two types of banks this study has considered two proxies, the first proxy is Return on Assets (ROAA) which is book based measure while the second proxy is Return on Equity (ROEE) which is a market-oriented measure for profitability/performance.

**2.1.1 Return on Assets (ROAA)**

This research considers return on assets as the dependent variable. ROAA is equal to earnings before interest and taxes to total assets. This reveals how a bank turns its assets into a benefit. Samad (2004) uses ROA as the measure of profitability.

**2.1.2 Return on Equity (ROEE)**

This study also considers return on equity as the dependent variable and is calculated as net income divided by shareholder equity. This proxy shows how the bank can earn on its equity investment. Hamedian (2013) uses ROE as the measure of profitability.

**2.2 Independent Variables****2.2.1 Management Quality (MQR)**

Management quality is one of our independent variables and is the proportion of loans to deposits LDR. This ratio shows how effectively and productively the bank's management uses its loans to generate deposits for important clients. The better result shows better management efficiency. Muhammad Amir, prawira Aditiya Dzulfadeln, Astiwi Amri (2022), It can be seen that the loan-to-deposit ratio has a significant effect on return on assets.

H1: Financial Performance ROAA is positively influenced by Management Quality

H5: Financial Performance ROEE is positively influenced by Management Quality

**2.2.2 Bank Size**

Another explanatory variable used in this study is bank size. Since size was found to have a significant impact on FP in prior studies and literature, bank size are typically weighted by their total assets Hamedian (2013). The effect of bank size on profitability is generally expected to be positive (Smirlock, 1985). Vernanda & Widyarti (2016), large companies in general have large total assets and can generate large profits as well. several studies from the literature show that bank size has a positive effect on profitability (Malik et al. 2015; Amin et al 2019; Amin and Haq, 2021; Sadeeq et al, 2022; Amin et al 2023). According to the banking theory, a company experiences economies of scale up to a certain point before diseconomies of scale take hold. This suggests that profitability rises with growth and falls as soon as there are scale-related inequities. Literature has demonstrated that there might be a positive or negative relationship between bank size and profitability. (Staikouras and Wood, 2004; Athanasoglou et al., 2008; Flamini et al., 2009).

H2: Size positively influenced the financial performance measured by ROA.

H6: Bank Size positively influenced the financial performance measured by ROE.

### 2.2.3 No. of Employee

No. of employees is used in this study as an explanatory variable. No. of employee is the total number of employees who works in the banks.

H3: The number of Employees positively influenced the performance (ROAA).

H7: The number of Employees positively influenced the performance (ROEE).

### 2.2.4 No. of Branches

The number of Branches also considers an independent variable in this research. The number of branches represents the total registered branches from 2006 to 2019. It reflects the market share, power, and geographical distribution of the bank. Williams (2003) and Zeitun (2012) discovered that ROA and the number of bank branches were positively correlated.

H4: The number of Branches positively influenced the bank performance (ROAA).

H8: The number of Branches positively influenced the bank performance (ROEE).

### 2.2.5 Dummy Variable

Whether a bank is conventional or Islamic serves as the moderator variable in this study. In this variable, the values (0) and (1) represent regular Islamic and conventional banks, respectively.

## 3. Methodology

This research includes four full-fledged Islamic banks (FFIB) namely; Meezan Bank, Bank Islami, Dubai Islamic Bank, and Albaraka Bank, and three full-fledged conventional banks (FFCB) namely; Samba Bank, JS Bank, and First Women Bank. Annual financial data of both types of banks are compiled for the period between 2006 and 2019 from the State bank website and the bank's official website. The sample selection period is guided by the availability of the data. The model is represented in the given equation.

$$ROAA_{icby} = \beta_{icby} + \beta_1 LDR_{icby} + \beta_2 \ln TA_{icby} + \beta_3 NoE_{icby} + \beta_4 NoB_{icby} + \beta_5 CB_{ibs} + \gamma_c + \gamma_y + \gamma_s + \mu_{icsy} \quad \text{equation (1)}$$

$$ROEE_{icby} = \beta_{icby} + \beta_1 LDR_{icby} + \beta_2 \ln TA_{icby} + \beta_3 NoE_{icby} + \beta_4 NOE_{icby} + \beta_5 CB_{ibs} + \gamma_c + \gamma_y + \gamma_s + \mu_{icsy} \quad \text{equation (2)}$$

In equation one and two, ROAA and ROEE are our independent variables and represents the return on assets and return on equity. LDR Shows Management Quality, lnTA Shows the natural logarithm of Total Assets and reflects the size of the bank, NOE Shows the Number of Employees working in banks, NOB Shows the number of branches for banks and CB Shows a dummy variable that signifies bank type, and is equal to 1 if a bank is full-fledged conventional otherwise 0. The

significance of  $\beta_5$ , in both equations shows the existence of profitability or firm performance differences in both banks.

#### 4. Data Analysis

**Table 2. Skewness and Kurtosis Test and Shapiro-Wilk Test**

Variables	No.	SK-Test	SW-Test
LDR	98	0.738	0.933
Bank Size	98	0.761	0.958
No. Of Employee	98	0.231	0.092
No. Of Branches	98	0.209	0.327

Table 2 shows the result of the Skewness and kurtosis test and Shapiro-Wilk test. The tests are used to find the normality of our continuous variable. The number of employees is winsorized among all the explanatory variables to adjust for bias that can incur from outliers and inflation in measurement error. The winsorization help to preclude the effect of outliers in the estimation and bring the data near to normal distribution. Consequently, the Skewness and kurtosis test and Shapiro-Wilk test are performed and the result is presented in table 2. Results of table two show that both Skewness and kurtosis test and the Shapiro-Wilk test  $p > 0.5$ , which indicates that all the explanatory variables are normally distributed around their mean.

Table 3 below shows the descriptive analysis of IB and CB in terms of the difference between FPs. Results of table 2 show no statistically significant differences between the mean value of ROAA, ROEE, and LDR of Islamic and conventional banks. These results are in contradiction with (Youssef et al., 2015). Whereas the mean value of bank size and no of branches is significantly greater for Islamic banks and the mean value of the number of employees is significantly greater for conventional banks in Pakistan.

**Table 3. Descriptive Statistics of the variables for Islamic & Conventional Banks**

Variables	Bank Type	No.	Mean	Median	SD	T-Test
ROAA	Islamic	56	0.006	0.007	0.012	0.879
	Conventional	42	-0.002	-0.001	0.018	
ROEE	Islamic	56	0.043	0.041	0.159	1.307
	Conventional	42	0.006	0.005	0.104	

LDR	Islamic	56	0.609	0.606	0.128	0.647
	Conventional	42	0.628	0.623	0.171	
Bank Size	Islamic	56	7.947	7.959	0.553	3.059**
	Conventional	42	7.620	7.598	0.480	
No. of Employee	Islamic	56	3.379	3.462	0.366	3.496***
	Conventional	42	3.610	3.606	0.263	
No. of Branches	Islamic	56	2.096	2.139	0.453	3.798***
	Conventional	42	1.770	1.769	0.372	

Table 4 represents the correlation between independent and explanatory variables. The result shows that bank size, No of Emp, and No of Bran is significantly positively correlated with ROA. Among the explanatory variables, the correlation between LDR and ROA is positive but insignificant. These correlation results between the variables are estimated without controlling the fixed effect.

**Table 4. Correlation among variables combine**

Variable	ROA	ROE	LDR	Bank Size	No. of Emp	No. of Bran
ROA	1					
ROE	0.873*** (0.000)	1				
LDR	0.161 (0.113)	-0.1501 (0.140)	1			
Bank Size	0.389*** (0.000)	0.605*** (0.000)	0.131 (0.198)	1		
No. of Emp	0.324** (0.001)	0.518*** (0.000)	0.0142 (0.889)	0.625*** (0.000)	1	
No. of Bran	0.325** (0.001)	0.561*** (0.000)	-0.091 (0.369)	0.892*** (0.000)	0.645*** (0.000)	1

It is clear from table 3 that the combined relationship of IB and CB between the profitability and the independent variables bank size, number of employees, and number of bank branches for overall data are positive and significant whereas, it is insignificant with loan deposit ratio (LDR).

**Table 5. Correlation Analysis of Islamic Bank**

Variable	ROAA	ROEE	LDR	Bank Size	No. of Emp	No. of Bran
ROAA	1					
ROEE	0.893*** (0.000)	1				
LDR	-0.1113 (0.414)	-0.1617 (0.238)	1			
Bank Size	0.672*** (0.000)	0.720*** (0.000)	0.007 (0.9537)	1		
No. of Emp	0.689*** (0.000)	0.7181*** (0.000)	0.0139 -0.9192	0	1	
No. of Bran	0.652*** (0.000)	0.701*** (0.000)	-0.083 (0.503)	0.944*** (0.000)	0.929*** (0.000)	1

Similarly, table 5 shows that the results from full pledge Islamic banks correlation analysis are the same as with for overall data that is the correlation between the profitability and the independent variables bank size, number of employees, and number of bank branches for overall data is positive and significant whereas, it is insignificant with loan deposit ratio (LDR). This result is consistent with Alkassim (2005) and is inconsistent with Hamedian (2013).

**Table 6. Correlation Analysis of Conventional Banks**

Variable	ROAA	ROEE	LDR	Bank Size	No. of Emp	No. of Bran
ROAA	1					
ROEE	0.950*** (0.000)	1				
LDR	-0.255 (0.107)	-0.251 (0.112)	1			
Bank Size	0.238 (0.139)	0.394*** (0.011)	0.213 (0.180)	1		

No. of Emp	0.085 (0.600)	0.199 (0.218)	-0.257 (0.104)	0.342*** (0.030)	1
No. of Bran	0.121 (0.456)	0.278 (0.081)	-0.159 (0.320)	0.733*** (0.000)	0.636*** (0.000) 1

Table 6 for conventional banks shows the relationship between ROE and bank size is significantly positive and it is insignificant with ROA. While it is insignificant with the rest of the other variables.

**Table 7: Effect of bank type on bank performance**

Variables	ROAA	ROEE
LDR	-0.007 (-0.530)	-0.072 (-0.760)
Size	0.030** (2.740)	0.198** (2.730)
NOE	0.009 (0.960)	0.129* (1.920)
NOB	-0.044** (-3.150)	-0.270** (-2.970)
CON	0.010 (1.070)	-0.216** (-2.020)
Constant	-0.195** (-2.310)	-1.208* (-2.040)
<b>Number of observation</b>	98	98
<b>F-stat</b>	3.047***	9.658***
<b>R-squ</b>	0.475	0.739
<b>Adjus. R-squ</b>	0.319	0.663
<b>R.M.S.E</b>	0.012	0.081

Table 7 shows the result of differences in the performance of IB and CB. The models of table 6 examine the main research hypothesis which is, whether there is any difference relative to asset efficiency and equity of full-fledged Islamic banks and full-fledged conventional banks. In the first model, the differences in firm performance of Islamic and conventional bank is examined through book proxy ROAA, whereas in the second model, the differences in FP are examined through market-oriented proxy ROEE. The regression result suggests that in terms of book measure of FP

ROAA the Islamic banks and conventional banks are not indifferent. However, differences in FP between full-fledged Islamic and conventional banks exist in the financial market. In model 2 of table 6, the effect of the dummy variable con is negative and significant on ROEE. This indicates that in terms of ROEE Islamic banks outperform conventional banks. This indicates that Islamic banks in Pakistan are better at the performance of investment returns compared to conventional banks. The same result was reported by Aziz et al., (2016). Among other explanatory variables, the effect of bank size on ROAA and ROEE is positive and significant. Whereas the number of branches has a significant and negative effect on ROAA and ROEE. All regression models in table 6 represent a significant F-statistic, R-squared, and adjusted squared.

The models in table 7 are basically for testing the main research hypothesis. However, there are a few control factors whose specific impact on full-fledged conventional banks versus FFIB needs further investigation. For this purpose, we have estimated four different models represented in table 8, for conventional and Islamic banks.

**Table 8: Effect of control variable on ROAA and ROEE of Islamic and Conventional banks**

Bank type	Conventional	Islamic	Conventional	Islamic
Variables	ROAA	ROAA	ROEE	ROEE
LDR	-0.077** (3.190)	0.031** (2.830)	-0.432** (-3.350)	0.164 (1.470)
Size	0.032** (3.210)	0.003 (0.390)	0.211** (3.370)	0.135* (1.710)
NOE	0.007 (0.380)	0.020** (2.440)	0.058 (0.610)	0.226** (2.240)
NOB	-0.051** (-2.650)	0.018** (2.270)	-0.264** (-2.610)	0.156 (1.630)
Constant	-0.140 (-1.570)	-0.168*** (-4.340)	-1.081* (-1.900)	-2.383*** (-3.152)
Number of observations	42	56	42	56
F-statistic	2.870**	10.420***	2.780**	20.53***
R-squ	0.512	0.746	0.518	0.799
Adju-R2	0.199	0.64	0.21	0.718
R.M.S.E	0.016	0.007	0.093	0.084

The models of table 8 show the effect of control variables on the performance of Islamic and conventional banks. First and third models of table 7 show that LDR has a negative effect on the ROA and ROE of the conventional bank. This result suggests a greater risk that happens due to the provision of credit funds that are not returned or due to an increase in non-performing loans in conventional banks (Hasna et al., 2019). However, the effect of LDR on the ROA of IB is positive suggesting that credit risk and bad loan development are less due to which the high ratio of LDR significantly positively contributes to the performance of IB in Pakistan. Size has a strong and favorable impact on the ROA of conventional banks, whereas, in the case of Islamic banks, this effect was found positive and significant on both ROA and ROE. The effect of the number of employees is positive but not significant on the financial performance (ROA) and market performance (ROE) of conventional banks. The estimated coefficient of the number of employees for Islamic banks shows a positive and statically significant effect on both ROA and ROE, while the number of branches has a positive and significant effect on the ROA of Islamic banks. These results indicate that IB is younger in comparison to conventional banks, and opening new branches and recruiting employees will positively affect the performance of IB in Pakistan. Which is not the case for conventional banks.

## **5. Discussion**

This study aimed to examine the differences in the FP of full fledge Islamic and conventional banks in Pakistan. Annual financial data of 7 banks including (4 full pledge Islamic and 3 full pledge conventional) were extracted from the financial statements of the banks for the period 2006-2019. To investigate the differences in performance we have used ROA and ROE as our dependent variables in this study. The empirical method employed for this study is Ordinary Least Square (OLS). The result of our main model demonstrates no differences in both bank types when compared relative to ROA, however, in terms of ROE Islamic banks outperform the conventional banks in Pakistan.

This study also investigates the effect of various bank-specific and other control variables on the performance of Islamic and conventional banks. The result of these variables shows that LDR has a negative effect on the ROA and ROE of a conventional bank. This result suggests a greater risk that happens due to the provision of credit funds that are not returned or due to an increase in non-performing loans in conventional banks (Hasna et al., 2019). However, the effect of LDR on the ROA of Islamic bank is positive suggesting that credit risk and bad loan development is less due to which the high ratio of LDR significantly contribute to the performance of Islamic banks in Pakistan. Size has a strong and favorable impact on the ROA of conventional banks, whereas, in the case of Islamic banks, this effect was found positive and significant on both ROA and ROE. The effect of the number of employees is positive but not significant on the FP (ROA) and market performance (ROE) of conventional banks. The estimated coefficient of the number of employees

for Islamic banks shows a positive and statically significant effect on both ROA and ROE, while the number of branches has a positive and significant effect on the ROA of Islamic banks. These results indicate that Islamic banks are younger in comparison to conventional banks, and opening new branches and recruiting employees will positively affect the performance of Islamic banks in Pakistan. This is not the case for conventional banks.

The future of Islamic banking seems to be brighter, as the result suggests that these banks are much younger and therefore expansion would help them to enhance their performance. Future research using a larger sample size and more sophisticated statistical techniques encompassing cross-country Islamic and conventional banks' financial measures comparison would have given us the opportunity to conduct a more thorough examination.

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