

Moderating Role of Exchange Rate on Profitability of Islamic Banks in Pakistan: A Switching Behavior

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Abstract:

The study probes the moderating role of the exchange rate on the profitability of Islamic Banks in Pakistan. The results of the study point out that bank size, asset quality and inflation have a positive and significant impact on profitability while asset composition and GDP and exchange rate have no impact on return on equity. Moreover, moderating variables of exchange rate and asset quality and exchange rate and asset composition do not affect profitability. It is vital to note that moderating effect of the exchange rate with bank size has a positive impact on ROE. The study infers that shifting behaviour of customers from conventional to Islamic banks.

Keywords: Return on Equity, Islamic Bank, Consumer Behaviour, Exchange Rate

I. Introduction

Islamic banks in Pakistan are not like straightforward lenders as these banks have commercial banking, investments operations and activities. Islamic bank is a financial institution that operates like a traditional bank but insists on Islamic law. The Islamic banks agree to deposits by a profit or loss sharing and lend wealth based on Mudaraba, Murabaha, Musharaka, Ijarah, Salam, and other schemes. After 1997 in Pakistan, along with the sharpie system in the banking sector and several other changes are observed due to privatization or mergers of public commercial banks. The financial sector of Pakistan consists of specialized banks, commercial banks, and financial institutions, companies of non-banking finance, investment banks, microfinance banks, Modarba and mutual funds. State Bank of Pakistan is liable for regulations and supervision of DFIs and commercial banks while further financial institutions are regulated and monitored by the SECP. Since the very last decade in Pakistan, the growth of non-conventional banking is substantial and is gaining recognition in the entire world (Khan et al., 2014).

Market share of Islamic banking deposits and assets in the overall industry of banking industry is at 13.6 per cent and 14.7 per cent respectively by the end of September

2018. In the Islamic banking industry, profit before tax has increased to PKR 23 billion. Other profitability indicators i.e., return on equity and returns on assets before tax are registered at 1.3 per cent and 20.2 per cent respectively. Islamic banking assets are recorded at PKR 2,458 billion by the end of September 2018. Assets composition analysis reveals that financing witness a growth of 3.2 per cent (PKR 42 billion). Islamic banking market share in the general banking industry has increased in 13.6 per cent. In Pakistan, the Islamic banking industry, total assets are recorded at 55.6 per cent at end of September 2018 (Islamic banking bulletin, 2018).

It is important to investigate the factors that have an impact on Islamic banking profitability. The stable growth of the Islamic banks and increase in the number of Islamic banks determine the number of people who have started a business through this banking system as a replacement for the conventional banking system. In this situation, it is a need of time to establish Islamic banks. This would support investors and stakeholders to understand the differences between two banking paradigms from a risk perspective and rewards attached to them (Aman et al., 2016).

This paper attempts to identify the important factors that affect the profitability of the Islamic banking sector in Pakistan. The rest of the paper is structured as: Section 2 explains a review of assorted studies. Section 3 exhibits the theoretical framework while section 4 specifies the model. Section 5 gives results and discussions. Finally, section 6 portrays the concluding remarks.

II. Literature Review

This section highlights the assorted studies on determinants of profitability of the banking sector. Olalere et al. (2021) investigated that credit risk is positively linked with business value, but liquidity risk, operational risk, market risk, and solvency risk are all negatively correlated with firm value. Further, the research found that company risk is inversely proportional to firm value. The relationship between financial hazards, business risk, and bank company value is greatly moderated by financial innovation. Bank size, GDP growth, diversity, profitability, and the Herfindahl-Hirschman Index are other parameters that have a substantial impact on the business value. The study recommends that managers of Nigerian banks should start investing in innovation through significant R&D as well as aligning their innovative capabilities with their risk management policies and available financial resources to improve their management. Banks must keep credit-related risks to a minimum. This is because rising credit risk may signal impending financial crises and anti-real-sector growth.

Ghamry and Shamma (2020) investigated that the most important elements influencing client switching behaviour in Kuwaiti Islamic banks are service convenience, service reliability, level of technology, and Sharia compliance. As a result, when developing initiatives to promote client happiness and loyalty, Islamic bank executives should consider these considerations. Loyal customers are more profitable than new customers because they are more likely to use additional services, spread the favourable word of mouth, and, most crucial, refuse competition offers.

Santosa (2020) stated that leverage, profitability, as well as efficiency, have a considerable positive impact on Islamic firm value, although liquidity, as well as the audit committee, have little impact. Liquidity and audit committees have a favourable influence

on firm value because firm size moderators offer a positive impact for all independent variables. In addition to the firm and corporate governance qualities, Islamic firm investors in the equity market should evaluate the most important component, namely firm size. These findings have significant implications for managers and relevant authorities in terms of improving financial market information on business value and paying more attention to corporate governance processes.

Kusumastuti and Alam (2019) explore the determinants of the profitability of Islamic banks. The exclusive preservation of the Islamic bank act leads the business stability. The performance of Islamic banks is measured by their profitability. Some factors that can affect the Islamic banks' profitability used in this research including BOPO, CAR and NPF. While the reason for this reading is to conclude the effect of NPF, BOPO and CAR on the Islamic bank's profitability. The results indicate that only the BOPO variable has a significant impact on ROA and ROE. While NPF and CAR variables have no significant impact on ROA.

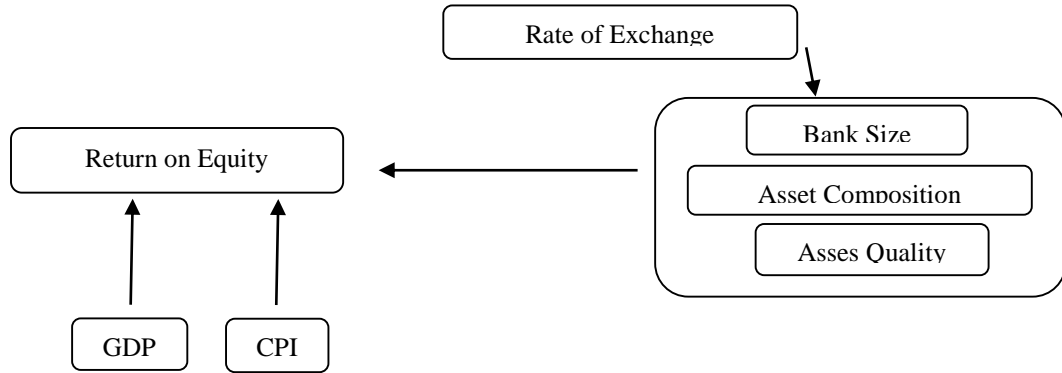
Hosen and Muhari (2019) aimed to analyze financial performance and macroeconomic indicators impact on the quality of financing in Islamic Rural Banking (IRBI) Indonesia. The model for this study is grouped by 4 regions of the workspace because IRBI has different capabilities depends on its area. The sample for the study is used Seventy-two IRBIs during the periods of 2010 to 2016. The outcomes of the study show that the size, return on equity, deposit ratio, efficiency ratio, GDP, and inflation rate are statistically significant towards nonperforming financing in Indonesia. Inflation has a quite significant effect in Zone One, There is the negative impact of GDP on NPF in Zone I, iv, while the positive impact in zone ii and iii. In short, the government's policy action should be changed in every region.

Ali and Ghazali (2018) determine the profitability of Islamic banks through macroeconomic variables. in Brunei. The impact of, interest rate, money supply, GDP, oil prices, inflation, exchange rate, competition on the profitability of Islamic banks was determined during the period 2012 to 2016. The findings reveal that GDP, exchange rate, inflation, money supply, oil prices have a significant and positive effect on the profitability of Islamic banks in Brunei. The findings suggest that the policymakers discover other resources to revive the financial and economic system. Islamic bankers may restore their marketing strategies for macroeconomic variables.

Dodi et al. (2018) examine the impact of factors that take a part in the Islamic banks' profitability in Indonesia during the period from 2008 to 2017. The explanatory method is used in this study is the GMM technique. This study has dependent variable profitability and ROA and ROE are taking as their proxy to determine the profitability. The independent variables are Bank size, Credit risk, Capital, and Liquidity. This research found that only one variable Bank Size has a positive impact on both dependent variables Return on Asset and Return on Equity while on the other hand credit risk, Capital, Liquidity have a negative impact on Islamic bank profitability in Indonesia. Furthermore, this study reveals that inflation has a positive impact while Gross Domestic Product have no significant impact on the profitability of Islamic banks. This study suggests that Islamic banks in Indonesia require a healthy developed and growing support from the government. Islamic banks could expand rule and offered fine Islamic products by concerned Sunnah and Islamic law.

Setyawati et al. (2017) investigate that Islamic banking financial performance of Islamic banking is better or not in Indonesia. The results show the effect of Non-Performing Finance on Return on Asset is negative. Furthermore, it is pointed out that Islamic banks performance is significantly affected by Inflation and non-performing finance.

III. Theoretical Framework



IV. Model Specification

The following model is suggested to examine the impact of exchange rate on profitability. The data for the current study are mostly collected by the State Bank of Pakistan, World Bank, Annual Financial Statements Islamic Banks.

$$ROE_{it} = \alpha_0 + \alpha_1 BS_{it} + \alpha_2 AC_{it} + \alpha_3 AQ_{it} + \alpha_4 ER_{it} + \alpha_5 (ER * BS)_{it} + \alpha_6 (ER * AC)_{it} + \alpha_7 (ER * AQ)_{it} + \mu_{it}$$

Where, ROE is Return on Equity, BS is Bank size, AC is Asset Composition, AQ is Asset Quality, ER is Exchange Rate and INF is Inflation.

V. Results and Discussions

Table 1 shows descriptive statistics for all variables. Table 1 reported the descriptive statistics of all the variables employed in this study. This descriptive analysis is based on 44 observations, which are enough to represent the distribution of the data. Mean is the centre value of the data. Central tendencies of the data are measured by the mean and median both. Median expresses the midpoint of analyzed data. The normality of variables is checked by the Jarque-Bera statistics.

Table 1: Summary of Descriptive Statistics

	GDP	BS	AC	AQ	ER	INF
Mean	3.084754	4.959028	0.904216	0.034929	1.949752	9.303529
Median	3.100787	4.93899	0.919463	0.024468	1.970325	7.689504
Maximum	3.189729	5.89304	0.955127	0.086536	2.023068	20.28612
Minimum	2.977921	4.159792	0.728015	0.007358	1.783464	2.539516
Std. Dev.	0.068693	0.414295	0.05117	0.021608	0.075311	5.10826
Skewness	-0.12178	0.246611	-2.06209	0.826146	-0.96469	0.62443
Kurtosis	1.693285	2.673646	7.086985	2.448645	2.852772	2.680328
JB	3.239175	0.641253	61.80579	5.56244	6.864344	3.046709

In table 2, multicollinearity is checked by correlation matrix.

Table 2: Correlation Matrix

	BS	AC	AQ	ER	GDP	INF
BS	1					
AC	0.77	1				
AQ1	0.35	0.44	1			
ER	0.74	0.66	0.37	1		
GDP	0.75	0.59	0.20	0.89	1	
INF	-0.57	-0.42	0.01	-0.59	0.72	1

Table 3: Autocorrelation test

Breusch-Godfrey Serial Correlation LM Test			
F-statistic	2449129	P.value	0.525

The autocorrelation problem is detected by Breusch-Godfrey. The study points out that the prob value of autocorrelation is more than 0.05. So, the results show the non-existence of autocorrelation.

Table 4: Heteroskedasticity Test: Breusch-Pagan-Godfrey

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	4.093254	P.Value	0.213

Table 4 reports the results for the Heteroskedasticity test Breusch-Pagan-Godfrey. The results show that the prob value of the heteroskedasticity test is greater than 0.05. So, the results show the non-existence of heteroskedasticity.

The common constant means that the intercept for the deferent cross-section does not vary and the same intercept for all cross-sections. These cross-sections might be companies, countries etc. The random effect method assumes that intercepts are not fixed across the groups but are random parameters. This method is treated as an alternative to the estimation of the fixed effect method. The fixed effect method means that intercept is measured as cross-sections specific. In the fixed-effect method intercepts for each cross-section would be reported separately. We select a common constant method.

Table 5: Redundant Fixed Effects Tests

Effects Test	Statistic	d.f.	Prob.
Cross-section Chi-square	0	3	1

Now we discuss the regression results of bank profitability. The first independent variable of the model is Asset Composition (AC). The case of Asset Composition is found to be negatively related to the dependent variable of Return on Equity (ROE). The regression coefficient value of Asset Composition is -0.32 showing a negative impact on the Return on Equity (ROE). Although the P-value is found to be insignificant (0.15) as it was greater than 0.05. The results show that there is a negative and insignificant impact on Return on Equity. This same result has been found by Abduh et al., 2001.

Table 6: Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AC	-0.32241	2.19537	-1.46861	0.15170
BS	0.39745	1.62903	2.43977	0.02040
AQ	0.31635	0.13953	2.26730	0.03030
GDP	0.96525	9.10180	1.06050	0.29690
ER	1.57952	10.11313	1.56185	0.12820
INF	0.04985	0.02628	1.89647	0.06700
ER*AQ	-0.82520	7.07318	-1.16665	0.25200
ER*AC	-2.07670	171.30680	-1.55725	0.12920
ER*BS	0.32389	25.29682	1.39302	0.01732
R-squared			0.79418	
Adjusted R-squared			0.78354	
Durbin-Watson stat			1.95005	
F-statistic			4.46629	
Prob(F-statistic)			0.00146	

The second variable of the model is Bank Size (BS). Bank size is also found to be positively related to ROE. Although the P-value is found to be significant (0.02) as it was less than 0.05. The results exhibit that there is a positive and significant impact on Return on Equity. This result is similar to (Widarjono, 2018; Asma et al., 2011; Sheikh & Qureshi, 2017)

The third variable of the model is Asset Quality (AQ). The coefficient value of Asset Quality is 0.31 which shows a positive impact on Returns on Equity. Although the P-value is found to be significant (0.03) as it is less than 0.05. The results show that there is a positive and significant impact on Return on Equity. This result is similar to positive relation with Profitability (Javaid & Alalawi, 2018). The fourth variable of the model is Gross Domestic Product is external to the banking sector. The parameter of GDP is 0.96 which indicate a positive impact on Return on Equity. Although the P-value is found to be insignificant (0.29) as it is greater than 0.05. The results show that there is a positive and insignificant impact on Return on Equity. This finding is similar to positive and insignificant (Abduh & Issa, 2018).

The fifth variable of the model is the exchange rate which shows the moderating effect. The exchange rate is found to be positively related to ROE. The coefficient value of the moderator is 1.57 show the positive impact on Return on Equity. Although the P-value is found to be insignificant (0.12) as it is greater than 0.05. The results point out that there is a positive and insignificant impact on Return on Equity Our results are compatible with Garcia & Trindade, 2019. The sixth variable of the model is inflation is also a macroeconomic variable. Inflation is found to be positively related to the dependent variable (ROE). The parameter of inflation is 0.04 showing a positive impact on ROE. Although the P-value is found to be insignificant (0.06) as it is greater than 0.05. The results show that there is a positive and significant impact on Return on Equity. This finding is similar to Khediri & Khediri, 2009; Masood et al., 2012. Moderating effects of (ER*AQ) and (ER*AC) do not affect the dependent variable because the P- values of these variables are found to be insignificant. Moderating effect of the exchange rate with bank size

(ER*BS) with the coefficient value (0.32) and P-value (0.01) show a positive impact on ROE.

VI. Conclusions

This study has aimed to explore the moderating role of the exchange rate on the profitability of Islamic banks in Pakistan. The study has found that Bank size, Asset Quality, exchange Rate and inflation are positively related to profitability while asset composition and two interaction terms which are exchange rate with asset quality and asset composition are found to be negative.

The results of this study recommend that the exchange rate fluctuation has a vital role in the profitability of Islamic banking. Islamic banks are needed through proficient and skilled regulatory and administrative structures. Policies can be strengthened and can be fortified. This is the role of the banks' management to manage their portfolios based on long-term profitability. The government should also make such a policy, which will increase the profitability of Islamic banks. The banks need to check for the asset quality which can save both the banks and investors from financial distress emerging out of the low profile assets.

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