

Factors Affecting Banking Performance in Pakistan: An Empirical Investigation

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Abstract

Pakistan is one of the economically emerging countries in South Asia. The current trends of Pakistan's economy are on the path to outshining the former year's growth rate. The unrelenting performances in the agriculture and services sector and outperformance of the large-scale manufacturing sector. Inflation and the fiscal deficit were confined, whereas revenue growth has surpassed last year's level. However, Pakistan's populace is 200 million. However, not many individuals bank with a regulated banking system. The financial system in Pakistan introduced a new phenomenon of the Islamic Banking system that is not a recent idea but has been in the mainstream now for more than a decade. There are several factors internally and externally that stimulate the performance of banks. In this paper, we have tried to investigate how these factors influence the performance of banks in Pakistan. We have used the ROE measure as a dependent variable to evaluate banks' profitability. We have taken the size, age, equity and financial development of the banks. Some external/country-specific factors are also taken into consideration as independent variables. This paper uses panel data from six banks in Pakistan for seven years (2010 to 2017).

Keywords: *Profitability, Islamic banks, conventional banks, Generalised Least Square, financial development*

JEL Classification: *C12, C23*

INTRODUCTION

Background

Pakistan is one of the emerging economies on the globe. It has a population of more than

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200 million. When we talk about the financial market, we observe that banks are the major players here. Although non-banking financial institutions (NBFIs) have some presence in the market, banks are active, vital players. During the last decade, Islamic banking has emerged as a new phenomenon. However, the idea was incubated in 1956. The clause incubated in the constitution of Pakistan stated that Riba should be eliminated as soon as possible from the economy. (Article 29(f)) (Khan, 2015).

The efforts since then were constantly made until 2002 when SBP awarded Meezan Bank, and Albaraka Bank was among the first Islamic Banking license beneficiaries (Khan, 2015). This marked the formal start of Islamic banking in Pakistan. As a result, Islamic banking has been gathering pace in Pakistan. The assets and deposits of the Islamic banking industry grew by 9.1 per cent (Rs. 189 Bln) during the last quarter of 2017 and reached Rs. 2,272 Bln, Before this quarter, it was at Rs. 2,083 bln.

In contrast, deposits in the Islamic banking industry reflected a quarterly growth of 9 per cent (Rs. 156 Billion) during the period under review. They reached Rs. 1,885 Bln, from Rs. One thousand seven hundred twenty-nine bln in comparison to the earlier quarter. During CY17, advances and liabilities of Islamic Banks witnessed a year-on-year growth of 22.6 per cent and 19.8 per cent, capturing a market share of 12.4 per cent and 14.5 per cent by December 2017. The Islamic Banking industry made a Profit before tax (PBT) of Rs. Twenty-three bln during the same period increased six bln as it was Rs. 17 bln during the previous year. (Islamic Banking Bulletin October-December 2017)

In Pakistan, Islamic banking operates under the guidelines following Shariah principles. The main crux of the Islamic banking principle on which it operates is sharing profit and loss. Furthermore, it is a fundamental doctrine that investors can enjoy profits as returns only if they bear the risk of that investment activity. (Chong and Liu 2008, Zoubi 2008 and Zeitun 2011, Olson and : and,). Another vital principle of Shariah is the prohibition of Riba (Interest). Along with this, principles like avoidance of Gharar, Maisar, and haram activities. All harmful activities for society, including exploitation and depriving any individual of his fundamental rights, are strictly unacceptable to Shariah. Therefore, it becomes vital for Islamic banks to adhere to these principles so that their policies reflect them. In comparison, the conventional bank enjoys the freedom to operate without any Shariah limitation.

Problem Statement

The crux of all business is to maximise profit. Therefore, we analyse a variation in profits of peer banks. This variation is mainly due to multiple factors. The total size of the Bank, equity, years of operation and financial development are some factors that may affect the profitability and performance of banks. Considering the factors above, this study explores how banks perform in Pakistan.

Back in 2002, Pakistan introduced Islamic Banking after the decision made by the appellate Shariah bench at Supreme Court. Islamic banking varies from conventional banking in several dimensions. The element of Riba is the fundamental point that differentiates Islamic and conventional banking systems. Similarly, Islamic banks do not deal in derivatives like swaps, repo transaction options etc. (Hassan and Dridi, 2010). They also cannot invest in businesses dealing in tobacco, pornography, liquor etc. The relationship on the liability side

between customers and banks is based on Mudharabah, where the customers invest with a profit motive and the bank, as the fund manager, invests these funds to exploit profit. Therefore, they agree on a profit-sharing mechanism. While, the bank on the assets side usually uses Islamic modes like Murabahah, Ijarah, Diminishing Musharakah, Salam and Istisn'a. Islamic banks shall always have underlying contracts that mainly involve an asset while advancing as a fundamental principle. On the contrary, conventional banks have a preset interest rate on liabilities and advances between the customer and the bank. Regardless of their performance, the commitment by the bank to their depositors and the customers as a borrower to the bank as creditor honour their obligation to pay a fixed rate of interest (Hanif 2011: and Hanif and Iqbal, 2010).

Similarly, here are some macroeconomic factors (such as markup rate, inflation, Gross Domestic Product, money supply and foreign exchange rate) that we assume to be the independent external factors that may also affect the whole economy. They are considered essential elements of whole industry performance. In our documented economy, banks are key fund providers. Therefore, it becomes equally essential for legislators to explore the effect of these macroeconomic factors that define banks' profitability and performance.

Previous research on this topic has covered only conventional banking or has not covered Pakistan's banking industry. To my knowledge, literature in this field has not such a study that covered both Islamic and conventional banking, especially about Pakistan. Therefore, the incentive of this study is that it shows a comparative analysis of Islamic and conventional banking in Pakistan and will suggest some steps for Islamic banking to perform efficiently.

Research Questions

What internal factors (bank-specific) can affect performance in banking (Conventional & Islamic)?

What external factors (country-specific) can affect performance in banking (Conventional & Islamic)?

How can Islamic bank improve their performance to remain competitive?

Research Objective

The research investigates what factors affect the operation of Islamic and conventional banks, using ROE as a performance indicator. It further evaluates the effect of external and internal factors on how Islamic banks perform, unlike their conventional counterparts. Furthermore, this research investigates how equity affects Islamic and conventional banks as differences in their liability and asset product structure.

This study intends for Islamic banks to enhance their operation to stay competitive in the market and investigate factors that can affect the performance of both banking systems (Conventional & Islamic).

Thus, the purpose of the research is to assess internal and external factors affecting the

performance of both banking systems (Conventional & Islamic) and assist them in improving their performance to stay competitive.

Scope of the study

This study examines internal and external factors that affect bank performance. The results of this study will be limited to Pakistan. In this analysis, two types of samples are selected from the banking industry of Pakistan. The first sample has four conventional banks, while the second one consists of two Islamic banks from Pakistan. I have picked relevant data from ORBIS-Focus Group, World Development Indicators, the World Bank database, and banks' official websites.

Limitations

This analysis has a duration of seven years (from 2008 to 2014) due to constraining of data availability, especially constraints of data about Islamic banks.

Limitations regarding variables are also there, as data about various factors (i.e. customer care, bank's goodwill, people's awareness etc.) that may influence bank performance was not available.

The outcomes of this research are confined to the banking industry of Pakistan only.

Delimitations

The study aims at the banking industry of Pakistan, and only six banks were taken under consideration.

LITERATURE REVIEW

In the modern world, Islamic banking came into existence in a small town (Mit-Ghamr) in Egypt in 1963 (Siddiqi, 1988). It was an experimental attempt to judge the application of Islamic finance in the modern world. However, the first systematic discussion about Islamic banking started in 1970, when several representatives of the Islamic state's finance ministries assembled at a conference held in Karachi. After that, different conferences were held consecutively on a similar topic as the Egyptian study conducted in 1972, "The First International Conference on Islamic Economics in Mecca in 1976", and "the International Economic Conference in London in 1977" (A.L.M. Abdul Gafoor, 1995).

In Pakistan, the journey of Islamic banking started in 1956, when the constitution of Pakistan stated that the state was to "eliminate riba as early as possible" (article 29(f)) (Khan, 2015).

From 1956 to 2002, there were many alterations in introducing Islamic finance in Pakistan. Finally, in 2002, the State Bank of Pakistan awarded Islamic banking licenses to two full-flagged Islamic banks (Khan, 2015). Thus, it was the actual and systematic start of Islamic banking in Pakistan. As a result, the Islamic banking industry proliferated in Pakistan, and in 2016, it captured a 16% share of the total financial market (Customs Today).

In discussing the factors that affect the performance of Islamic banks, one has to consider

conventional banking. In this section, we have tried to review the studies conducted to determine the factors affecting the performance of the general banking industry (including conventional and Islamic). These factors might be internal and external. In this regard, many empirical studies are conducted to determine the factors affecting bank performance. These studies focused primarily on developed countries; however, some could also provide evidence from developing countries. The study carried out by Short (1979) and Brouke (1989) is counted as one of the earliest studies that attempted to explore some of the main elements that affect the performance and profitability of banks. After that, many studies investigating the variables related to bank profitability by other researchers can be marked. These researchers include “Molyneux and Thornton (1992)”, “Demirguc-Kunt and Huizinga (1999)”, Staikouras and Wood (2004), Athanasoglou, Delis and Staikouras (2006), and Pasiouras and Kosmidou (2007).

The finding of Bourke (1989) was a co-relationship between profitability and liquidity. However, some studies show that small funds, when invested in liquid investments, derive a high yield [“Eichengreen and Gibson (2001)” and “Molyneux and Thornton (1992)”. Molyneux and Thornton (1992) analysed the performance of banks in multiple countries of Europe from 1986-to 1989. They concluded that a substantial co-relationship exists between the return on equity (ROE) and bank concentration, government ownership, and interest rates in each country. Bashir (2000) also observed the performance of Islamic banks from 1993-to 1998 in 8 Middle Eastern countries. His study illustrated a substantial relationship between deposit to asset ratios and bank performance. He also observed that foreign banks were ahead in profitability compared to local banks.

While studying the European banking industry, Bikker (1999) submitted a co-relationship between bank efficiency and its size. Similarly, he found that banks’ performance was positively related to the size and the growth of GDP while negatively related to inflation. Akhtar and Sadaqat (2011), while researching a sample of Pakistani Islamic banks for 2006-2009, found the impact of specific factors on the profitability of banks. They found that CAR (capital adequacy ratios) had a relationship while the bank’s size negatively affected its performance.

There are some external factors also that affect bank performance. These include macroeconomic factors like GDP, Inflation, interest rate, foreign exchange rate and money supply. These factors impacted the entire economy and were crucial elements that affected banks’ performance. Several studies have proven a correlation between GDP and bank profitability [Demirguc-Kunt and Huizinga (1999), Bikker and Athanasoglou Brissimis and Delis (2008), among others]. Revell (1979), discussing the relationship between bank profitability and inflation, found that the effect of inflation on bank profitability depends on the fastness of increase in banks operating expenses and the rate of inflation. Rasiah (2010) quoted Perry (1992) to support the view that inflation impacts banks’ profitability depending on whether it is fully anticipated. Bourke (1989), Molyneux, Thornton (1992) and Athanasoglou et al. (2008), among others, stated a positive relationship between inflation and profitability.

MODEL AND ESTIMATION METHODS

Modeling the Profitability of Banks

The banking sector is one of the most basic and crucial pillars in building any economy.

Being profitable and efficient in performance is the primary goal of every bank. Our observations show that banks are different in performance and profitability. This difference is the result of several factors. These factors might be internal/bank-specific as well as external/country-specific. In this study, we choose some internal and external factors to analyse their impact on banks' profitability. We use ROE to measure banks' profitability, as Sinkey (2002) considered this ratio the best measure of a bank's performance.

Conceptual Framework

The following conceptual framework (Figure 1) is designed to pursue this study based on existing literature, in which bank performance is a dependent variable and is measured by ROE. Age of bank, Equity, bank size, Financial Development, GDP and Inflation are independent variables. We have measured Financial Development by total assets to GDP.



Figure 1: *Conceptual Framework*

Functional Form

In the equation, we use ROE as a dependent variable, while age, size, equity and financial development of banks are selected as internal factors; however, GDP and inflation are also dependent variables. The following equation is used to analyse the profitability of banks.

$$ROE_{it} = \beta_0 + \beta_1 Age_{it} + \beta_2 Size_{it} + \beta_3 Equity_{it} + \beta_4 Fid_{it} + \beta_5 GDP_{it} - \beta_6 INF_{it} + u_{it}$$

Where “i” denotes one of the five selected banks, “t” is the time from 2008 to 2014, and “Age” represents the age of the bank in years. “Size” refers to the total assets of the banks. “Equity” is the equity capital of a bank. “Fid” is financial development equal to “Total Assets of bank / GDP”. “GDP” is the gross domestic product of Pakistan (GDP at factor cost, in Rs. Million), and “INF” identifies the inflation rate of Pakistan (average of the year).

Estimation Methods

As we want to estimate the regressors, the independent variables upon regressand, the bank's profitability is the dependent variable; we use ordinary least square (OLS), the standard estimation method. GLS is a technique for calculating the unknown parameters in a linear regression model. This method is considered an unbiased, consistent and efficient estimator.

DATA ANALYSIS

This study uses panel data for six banks in Pakistan for eight years (2008 to 2014). We selected four conventional (UBL, ABL, Standard Chartered and MCB) and two Islamic banks (Bank Islami and Meezan Bank) for this study. This section describes the sources of data, methods used to construct variables, and descriptive statistics.

Descriptive Statistics

The descriptive statistics of the variables used in the model are presented in the following two tables. Table 1 shows descriptive statistics of sample 1, i.e. conventional banks, while Table 2 shows sample 2, i.e. Islamic banks.

Table 1: Descriptive statistics for Sample 1

	ROE	AGE	SIZE	EQUITY	FID	GDP	INFLATION
Mean	0.286488	63.53571	564650.4	56098.16	2.761577	204169.7	12.04257
Median	0.220227	60.00000	541625.8	52281.28	2.922284	213587.4	11.91677
Maximum	2.414079	101.0000	1009739.	106908.2	4.367031	244360.9	20.28612
Minimum	0.014305	7.000000	101984.1	6219.801	0.417351	168152.8	7.191671
Std. Dev.	0.426025	24.29522	226030.3	22954.14	0.955613	29863.87	4.250791
Observations	28	28	28	28	28	28	28

Table 1 displays descriptive statistics for all the variables used in the model for conventional banks. The positive mean value for ROE, AGE, SIZE, EQUITY, FID, GDP, and INFLATION ranges from 0.286488 to 204169.7. We have included diverse samples of banks having dissimilar sizes and business combinations. The value for SD of ROE in conventional banks is 0.426, more significant than the Standard Deviation of ROE of Islamic banks which is 0.101. This indicates that Islamic banks' data set observations are relatively closer to the mean than observations in conventional banks' data.

Table 2: Descriptive statistics for Sample 2

	ROE	AGE	SIZE	EQUITY	FID	GDP	INFLATION
Mean	0.085040	9.714286	216861.9	15878.54	9.71E-07	2.04E+11	12.04257
Median	0.076797	6.500000	105518.9	7715.816	6.20E-07	2.14E+11	11.91677
Maximum	0.254455	55.00000	1111414.	94589.28	4.55E-06	2.44E+11	20.28612
Minimum	-0.101849	2.000000	19088.60	4702.433	1.12E-07	1.68E+11	7.191671
Std. Dev.	0.101491	13.30950	285433.1	23373.80	1.15E-06	3.04E+10	4.331765
Observations	14	14	14	14	14	14	14

Table 2 shows descriptive statistics for all the variables used in the model for Islamic banks. The positive mean value for ROE, AGE, SIZE, EQUITY, FID, GDP and INFLATION are ranging 0.085040 to 216861.9. We have collected a diverse sample, including different sizes with business combinations. Conventional banks had a standard deviation of 0.426, a higher value of Standard Deviation of ROE of Islamic banks which is 0.101. This indicates that observations in Islamic banks' data sets are relatively closer to the mean than conventional banks' data.

Regression Results

We use the generalised least squares (GLS) method to measure the effect of independent variables upon dependent variables. In this section, we present and discuss the regression model results. In addition, we have run two regressions for conventional banks and Islamic banks to compare them.

Table 3 shows the regression results for conventional banks, and table 4 shows the regression results for Islamic banks. We will first discuss the results for conventional banking

after that will, shed some light on the results of Islamic banking. Then, at last, we will be comparing both results.

Table 3: Regression results of sample 1(Dependent Variable: ROE)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-4.258594	1.961789	-2.170771	0.0416
AGE	0.000943	0.003281	0.287512	0.7765
SIZE	-6.67E-06	2.41E-06	-2.761225	0.0117
EQUITY	-6.14E-06	4.96E-06	-1.238865	0.2291
FID	1.339417	0.50323	2.661638	0.0146
GDP	2.40E-05	7.91E-06	3.037614	0.0063
INFLATION	-0.00097	0.030311	-0.032015	0.9748
R-squared	0.575656	Mean dependent var	0.286488	
Adjusted R-squared	0.454415	S.D. dependent var	0.426025	
S.E. of regression	0.314678	Akaike info criterion	0.737783	
Sum squared resid	2.079465	Schwarz criterion	1.070835	
Log-likelihood	-3.328968	Hannan-Quinn criter.	0.8396	
F-statistic	4.748023	Durbin-Watson stat	1.301831	
Prob(F-statistic)	0.003336			

Table 3 shows the regression results of conventional banks. The value of R-squared is 0.575656, which means that the dependent variable is 57% dependent on the independent variables. The remaining variation in the dependent variable is caused by some other independent variables not included in the study. The value for the F-statistic has a significant value of 4.748023, confirming that the model is stable and valid in relevance to the study. Further, it also suggests that the SIZE that refers to the bank's total asset has a substantial relation with ROE. The results also depict that the size negatively impacts the banks' profitability. Therefore, it recommends that smaller banks are more likely to achieve a higher ROE. While studying the European banking industry, Bikker (1999) found opposite results and suggested a positive relationship between size and bank efficiency, while our model rejects that study. Similarly, FID (Financial Development) and GDP have a significant positive relation with ROE. This positive relationship shows that these two factors also positively impact profitability.

On the other hand, our model shows that AGE, EQUITY and INFLATION are statistically insignificant, which means that these factors have little or no impact on profitability.

The standard error of the regression is the estimated standard deviation of the error term, which is 0.314; it represents the average distance that the observed values fall from the regression line. The Islamic banks model has a smaller value than conventional banks, indicating that the observations are closer to the fitted line and represent a reduced error in the estimate.

Table 4: Regression results of sample 2(Dependent Variable: ROE)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.54752	0.463289	-3.34028	0.0124
AGE	-0.02152	0.022193	-0.96961	0.3645
SIZE	-7.91E-06	2.49E-06	-3.17774	0.0155

EQUITY	1.87E-05	1.96E-05	0.951392	0.3731
FID	1771778	461242.1	3.841318	0.0064
GDP	6.63E-12	1.95E-12	3.401344	0.0114
INFLATION	0.015643	0.008228	1.901251	0.099
R-squared	0.813581	Mean dependent var	0.08504	
Adjusted R-squared	0.653794	S.D. dependent var	0.101491	
S.E. of regression	0.059717	Akaike info criterion	-2.49156	
Sum squared resid	0.024963	Schwarz criterion	-2.17203	
Log-likelihood	24.4409	Hannan-Quinn criterion	-2.52114	
F-statistic	5.091642	Durbin-Watson stat	1.26343	
Prob(F-statistic)	0.025342			

Table 4 shows the regression results of Islamic banks. The value of R-squared is 0.813715, which reflects that the dependency on the independent variable is 81%. In comparison, the remaining variation of 19% remains unexplained. F-statistic has a significant value of 5.096138, and it explains that the model relevant to the study is stable and valid. Other results suggest that the SIZE has a significant negative relation with ROE, where size refers to the bank's total assets. This positive relationship shows that the size of the bank has a significant negative impact on profitability. It suggests that smaller banks are more likely to achieve a higher ROE. While studying the European banking industry, Bikker (1999) found opposite results and suggested a positive relationship between size and bank efficiency, while our model rejects that study.

Similarly, FID (Financial Development) and GDP have a significant positive relation with ROE. This positive relationship shows that these two factors also positively impact profitability. INFLATION is also statistically significant at 10%. On the other hand, our model shows that AGE and EQUITY are statistically insignificant; these factors have no or minimal impact on profitability.

A comparison of the above two tables shows that according to our model, INFLATION impacts profitability in Islamic banks, while in conventional banks, it is proved statistically insignificant. AGE is statistically insignificant in both models, which means age has no relation to banks' profitability. In light of this result, we can say that Islamic banks have no excuses of short duration for not performing well because our model proved that age is statistically insignificant.

The standard error of the regression is the estimated standard deviation of the error term, which is 0.059; it represents the average distance that the observed values fall from the regression line. The Islamic banks model has a smaller value than conventional banks, indicating that the observations are closer to the fitted line and represent less error in the estimate.

CONCLUSION AND POLICY IMPLICATIONS

Banks have a vital role in the economic development of any country. In Pakistan, we have two systems of banks, conventional and Islamic. This study is conducted to explore the factors that affect the performance in terms of banks' profitability in Pakistan. We have collected the data from 4 conventional and two Islamic banks in Pakistan from 2008 to 2014. We have selected four bank-specific/independent internal variables (AGE, SIZE, EQUITY and FINANCIAL DEVELOPMENT) and two country-specific/external (GDP and INFLATION) independent variables.

The results show that SIZE, FINANCIAL DEVELOPMENT, GDP and INFLATION affect the profitability of banks substantially, while AGE and EQUITY have hardly any effects on it. Future studies can extend the current work by including other independent variables such as current ratio, interest rates, lending and borrowing, total expenditures to total assets, staff expense to total assets, investments to total assets, and taxation and regulation indicators. These results can help policymakers establish policy by inviting their focus on external factors, as external factors have a more substantial impact on the profitability of Islamic banks relative to their impact on conventional banks. Therefore, Islamic banks can perform better and more efficiently by focusing on external factors.

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