

Determinants Of Profitability of Islamic Banks Evidence From: Islamic Banks Operating in Pakistan

Dr. Lala Rukh¹, Amir Zeb², Sangeen Khan³

Keywords:

IBs Profitability, ROE, Cap, Mgt Exp, Bsize, Dpst and GDP

ABSTRACT

The main objective of this study is to investigate the determinants of profitability of Islamic banks (IBs) in Pakistan, in order to evaluate the relative importance of external and internal determinants of IBs profitability. This research study annual data for the period of 2008-2019. Panel data regression is used. Dependent variable is ROE that proxies for profitability. Micro economic variables are Capital (Cap), Management Expense (Mgt Exp), Bank size (Bsize), Deposits (Dpst) and macroeconomics variables are Gross Domestic Product (GDP) & Inflation (INF) are used as independent variables. The author finds out four variables are significant at 5% i.e. cap, Mgt Exp, Bsize and Dpst of IBs. Here, cap, Bsize and dpst have significant and positive relationship with profitability of IBs; rather Mgt exp has significant & negative relationship with profitability of IBs; while there is insignificant relationship of GDP and INF with profitability of IBs in Pakistan.

INTRODUCTION

Banks are most important role-playing institutions in our society and it is inconceivable to live without banking in this recent period. Governments or any nation strengthen their economy through the banking system. In addition, all individual and financial business do transactions through banking system; recently Islamic banks (IBs) are more gainful than Conventional banks (CBs). Despite the benefits of CBs there are also some disadvantages. As we can see, the economic and financial crunch of the 21st century was basically caused by the CBs system (Asadullah, M. 2017). The banking institution is an important source of finance for modern commerce. This globalization phenomenon has made non-financial and financial institutions or banks more important to the concept of efficiency (Hussain and Bhatti, 2010).

IBs are optimum active financial sectors in Muslim's countries and also in non-Muslim's countries. The operation of Islamic financial institutions operating principles except for exploitation and uncertainty are better than CBs therefore that the performance and growth of

¹ Lecturer, Department of Management Sciences, University of Swat

² Scholar, Department of Management Sciences, University of Swat

³ Assistant Director P&D, University of Swat

IBs is better than CBs systems (Aslam, Inamullah, & Ismail 2016). The banking system is a powerful driver and channel of resource allocation for all economies (Shahid, M. S., Rizwan, M., & Hassan, M. 2015).

Under the mentorship of Zia ul Haq, the first phase of IBs system in Pakistan in the 1980s was unsuccessful. But as Shariah scholars have increased their involvement in policymaking, product design, supervision and audits, the second stage since 2002 has seen effective and constant growth. Now IBs of Pakistan have a market share of just 10% in just over a decade (Shaikh, S. A. 2014).

Some studies are done in Pakistan on IBs, and authors have examined that there are more determinants that affect the profitability of IBs. This study has shown how the determinants of profitability affect the performance of IBs in Pakistan and better understand the importance of profitability determinants.

IBs sector actually grew briskly in Pakistan. The identification is conducted on the profitability determinants of IBs in this study and also to identify what factors have impressed the rapid growth of IBs in Pakistan. Most of the studies have discussed the value of micro and macro determinants and their effect on profitability of banks. Nevertheless, more research studies are carried out on conventional banking system. However very few studies have been conducted on IBs to investigate the issue discussed, moreover the results obtained are mixed and inconclusive which highlights the needs to further investigate the elements effecting the IBs profitability, to reach towards a unanimous conclusion. Purpose of this study is to investigate the factors that affect the profitability of IBs in Pakistan between the periods of 2008-2019. The study aims to investigate the effect of capital on profitability and also to find out the effect of management expense, bank size, deposits, inflation and gross domestic product on the profitability of Islamic banks.

In this field confined research studies have been conducted in Pakistan likewise Asadullah (2017), Siddique, *et al* (2016), Mushtaq Younas et al. (2017), Khan, Ijaz, F., & Aslam, E. (2014). These research studies examined the internal & external determinants of profitability of IBs in Pakistan. Asadullah (2017) collected data on 5 IBs in Pakistan for 10 years during 2006 to 2015. Independent variables were size, liquidity, INF and GDP. Dependent variable was ROA, and also recommended for future researchers to include more variables in analyzing the effect of profitability of Islamic banking sector. Therefore, more variables are added in order to evaluate the relative importance of micro and macro factors of profitability of IBs. Although the earlier researchers have worked on monthly and quarterly data while in this research study annual data is taken for the period of 2008-2019. Panel data regression is used.

And four difference variables are included. ROE is used as dependent variable. Cap, Mgt Exp, Bsize, Dpst, GDP & INF are used as independent variables. The current study investigates the significance of the factors that affect the profitability of IBs in Pakistan.

LITERATURE REVIEW

This research study discusses the determinants of profitability of IBs which rapidly grow in Pakistan. In this study we are discussed the review of previous studies external determinants and internal determinants. We find the relationship between the determinants of IBs profitability and theoretical framework to propose a conceptual framework. Recently, IBs are becoming most important banks in banking industry. Financial investors and analyst realize that IBs are secured than CBs and more benefits bring to the businesses. Many research studies investigated the determinants that effect the profitability of IBs and CBs. In this research study we discuss the impact of determinants on ROE of IBs in Pakistan.

Many research studies used ROE and ROA as dependent variables as a measure of profitability of bank. Ben Naceur (2003) used NIM (net interest margin) and ROA as dependent variables in a study of the determinants of profitability in the Tunisian banks. Our country studies reviewed by Asadullah M (2017) and Akther, Orangzab , Raza and Akram (2011) also used ROE and ROA as a measure of performance and profitability of Banks in Pakistan. ROE represents the company performance for company share after subtracting all taxes and expenses (Van Horne and Wachowicz, 2005). Hassan and Bashir (2003) included both ROA and ROE in their study as a measure of profitability. Hassan and Bashir (2003) emphasized that profitability can accurately reflect the managerial ability to utilize the banks real investment and financial resources to create revenue. Many regulators thus believed that best measurement of profitability are ROE and ROA of the bank.

Elgadi, E., & Yu, P. Y. (2018) examined the determinants of profitability of IBs in Sudan, using data sets held by 27 Sudanese banks since 2005-2013. The author examined that the cap and profitability have a significant & positive relationship. The author found that the ownership, capitalization, and asset utilization have a positive effect on profitability, but operational efficiency, bank age, leverage and expertise are adversely affected. Alshatti (2016) also investigated CBs profitability determinants. The author collected data comprising of 130 observations of 13 banks in Jordan the period of time 2005-2014. The author examined that cap, leverage and capital adequacy have positive relationship with profitability of the banks. According to Khan *et al* (2014) also showed the same result of the above research studies that the author investigated the determinants of profitability of IBs from 2007-2014. The result showed that cap and profitability of IBs have positive relationship.

Chua, Z. (2013) examined the internal and external determinants that effect the profitability of IBs in Malaysia, by using a panel data of six Malaysian IBs from 2007 to 2011. The result obtained shows a significant & positive relationship between Cap & Profitability. But although Tarmizi and Wasiuzzaman (2010) found that the relationship of cap is negative with profitability of Malaysian IBs, while Sufian and Habibullah (2009) investigated the affect of cap on profitability in Thailand from 1999 to 2005. This study concluded that cap & profitability are positive relationship. And also Vong and Chan (2009) have shown through statistical studies that the cap and profitability have positive impact. But Pramato and Ismail (2006) also show the same result with wasiuzzaman *et al* (2010). And Athanasoglou, Delis and Staikouras (2006) too show the same result with waziuzzaman *et al* (2010) that cap is negative relationship with the bank's profitability of CBs in South Eastern European. And as well Hassan and Bashir (2003) showed the same result that cap and ROE are statistically significant and negative relationship. Higher capital ratios result in lower profitability for banks.

According to Obamuyi, T. M. (2013) the author used the fixed affect model of regression applied to the panel data of 20 banks' during the year of 2006 to 2012. This result showed that the Mgt Exp significant & negative effect on ROE in Nigerian bank. This means that the Mgt Exp of banks can improve their bank's performance and reducing operation costs. Kok, Y. T. *et al* (2012) too showed the same result of the above study. The author gathered secondary data from 2006 to 2010 of IBs in Malaysia. This study examined that Mgt Exp important determinant of bank. The author examined that Mgt Exp & ROE of IBs have negative and significant relationship. Policy makers need to decline unforced operating expenses & labor expenses to maximize profitability of the bank.

According to Ramadan, Kaddumi and Kilani (2011) showed similar result of the above studies. The author used the balance panel data set of the Bank in Jordan. The nature of the relation between profitability and internal and external determinants of banks; the author observed 10 banks during 2001-2010. The result showed that the Mgt Exp has significant & negative relationship with profitability of banks. However, ROE is statistically insignificant. But Conversely, Asutay and Izhar (2007), Asif and Dr Naveed Umair Ahmad (2021), Haron (2004), Bashir (2003) and Molyneux and Thornton (1992) found that Mgt Exp has a positive relationship with bank profitability. It means that higher expense or operational expense can create higher profits for the bank. Although most studies have shown that Mgt exp is significant and have negative relationship with ROE.

Khan, *et al* (2014) investigated the factors that affect profitability of IBs from the period of 2007-2014. The researchers investigated that the dpst and profitability have significant and

negative relationship. But conversely Ostadi & Monsef (2014) identified the determinants that effect the profitability of Iranian industrial banks and the author concluded that dpst has positive relationship with ROE. Therefore, the profitability of bank dpst has improved. According to Masood, O. *et al* (2012) the results obtained are similar 25 banks were selected in 12 countries during 2006 to 2010 in 4 regions. The study objective is to investigate the factors that affect the profitability of IBs in 4 regions. Panel data regression method was used and profitability measures were the ROE and ROA. The author found that the major and lowest costs of bank financing are deposits. The higher the interest and profits from dpst converted into loans, therefore dpst positive relationship with profitability. Javaid, S., Zaman, K., Anwar, J., & Ghafoor, A. (2011) to show the same results of the above studies and investigated the factors of profitability of top ten banks in Pakistan during 2004-2008. Only focus is on internal determinants. This paper used the Pooled OLS method. The author showed the result that Total dpst to total assets significantly and positively affect the profitability. Many researchers showed the dpst have positive effects on profitability.

Elgadi, *et al* (2018) examined the effect of Bank size (Bsize) on profitability of IBs and it is not statistically significant for both ROE and ROA. Their results could mean that the Bsize of the Sudanese IBs does not show any impact on profitability of the banks. The trivial relationship among Bsize and profitability may be related to the impact of high INF rates in the Sudanese economy. But according to Asadullah M (2017), there are two significant variables in the fixed model effect, at 5% that is liquidity & Bsize liquidity has positive but Bsize has negative effects on ROE of IBs.

Khan, *et al* (2014) identified the determinants that effect the profitability of IBs from 2007-2014. The author concluded that the Bsize exhibit insignificant relationship with ROE. Conversely of the above studies Chua, Z. (2013) examined external and internal determinants that effect the profitability of IBs in Malaysia. Used a panel data of 6 Malaysian IBs during the time 2007-2011. The author identified that the Bsize has positive relationship with Profitability of IBs. Idris *et al* (2011) investigated that Bsize is a potent variable and there is a positive relationship between Bsize & ROE. Idris *et al* believed that superior the bank, the better it would be to negotiate the input price and lower the average cost of the bank. Banks can therefore enjoy economies of scale and improve ROE. Wasiuzzaman *et al* (2010) and Athanasoglou, *et al* (2005) examined that the Bsize is not significant to influence the ROE. Wasiuzzaman *et al*(2010) found that there is high correlation of Bsize with cap ratios & concluded that there is no impact of the Bsize on IBs profitability in Malaysia.

According to Ghurtskaia, K. (2018) the external factors that effect the profitability of banks from 2003-2017 are Bank profitability variable (ROE) and external determinants include GDP, unemployment, INF, foreign direct investment and exchange rates. The author examined that the GDP & profitability has weak negative relationship & correlation coefficient is -0.005. According to Asadullah M (2017) GDP has no impact on profitability of IBs. GDP is a measure of total economic activity of the economy. Kiganda, E. O. (2014) collected annual data spanning five years from 2008 to 2012. The author concluded that Economic growth (real GDP) has no impact on profitability of bank.

Zeitun, R. (2012) investigated the influential factors (External determinants and foreign specific variables) of IBs & CBs in the Gulf countries from 2002-2009. Two samples are used in this study. The results obtained showed that GDP and profitability has a positive correlation, while INF has a negative correlation with profitability of banks. This finding showed a strong correlation between economic conditions (variables) & bank performance. Srairi (2009) also showed the same result of the above study. The result showed that real GDP is statistically significant and positively impacts the profitability of IBs. Zantioti (2009) investigated that GDP growth rates, per capita GDP account & bank credit / GDP for a large share of the profitability of IBs around the world. As a result, shows that GDP is a determinant of profitability for banks in the North Africa & Middle East. However, GDP growth is positively correlated with profitability of bank in the Middle East and profitability of bank in North Africa is negative. On the other hand, GDP per capita and Profitability of bank has a positive relationship in North Africa. Staikouras and Delis (2005) argue that there is insignificant impact of GDP on bank profitability.

Asadullah M (2017) investigated that Inflation (INF) is one of the basic determinants of profitability of the bank. The author gathered data on 5 IBs in Pakistan from 2006-2015. The study showed that INF is insignificantly associated with ROE. Ali, M. (2016) also investigated the external factors of profitability of IBs in Pakistan, using seven years quarterly time series data from period of time 2006 to 2012. In order to get the aims of the study, Unit root test, Johansen and Juselius Co integration methodology and Granger causality test are used. The test of the study showed that there is a positive & significant relationship between INF and IBs profitability.

Duraj, B., & Moci, E. (2015) contributed to existing literature to provide extra evidence of factors affecting bank profitability. This study showed that the relationship of INF and profitability is significant and negative but according to Abduh, M, & Idrees, Y. (2013) the INF and profitability of IBs relationship is positive and significant, which shows the difference

in nature of IBs and CBs. Floros, C. Tan, Y, & (2012) also showed the same results. The sample consists of 101 banks (twelve joint commercial banks, 84 CBs, five state owned banks). The period covered from 2003 to 2009. Empirical results showed that INF & Chinese bank profitability has a positive relationship.

Wasiuzzaman *et al* (2010) investigated that INF has a very different impact on bank profitability, depending on whether INF is expected or not. If INF is expected, accordingly the interest rate can be adjusted by bank. Therefore, the bank's profits will raise faster than costs and will ultimately boost the bank profitability. On the other side, if INF is unexpected and the bank can not adjust interest rates as soon as possible. This will ultimately have an adverse impact on the profitability of the banks, as bank costs can grow faster than bank profits. Chan & Vong (2009) examined that external factor such as INF effect the profitability of bank. The author examined that INF has a strong impact on banks profitability.

Izhar & Asutay (2007) and Haron & Azmi (2004) investigated that INF & ROE has a positive relationship, and it confirms the results of Haro(1996) & Molyneux & Thorton (1992). In other study of Heggested (1977) suggests that the per capita income and profitability has no relationship.

Theoretical Background

Perry's Theory (1992)

According to this theory, IBs have been unable to predict INF and thus lost profitability. It is easy to understand that dpst will decrease if more INF increases and less savings than to consumers. As a result, the profitability of the bank is reduced.

Economic Theory

If the industry suffers from economies of scale, it expects to increase profitability as the size increases as the institution will produce less effective costs. Another argument is that profitability is less than optimal production limit and cost (expense) is increased.

Free Cash-Flow Theory (FCF Theory)

The amount of excess cash is called FCF. It comes from when the company pays for it is expense including investment. If your company goal is to maximize shareholder value, you can distribute free cash flow to shareholders. Jensen (1986) says investors should pay free cash flow to prevent managers from using the funds properly. Some investors use free cash flow instead of net income to measure a company financial stability.

Signaling Theory

The signaling theory developed by (Berger 1995) explained the performance of banks. According of this theory; use of equity to finance project (which is more expensive than debt)

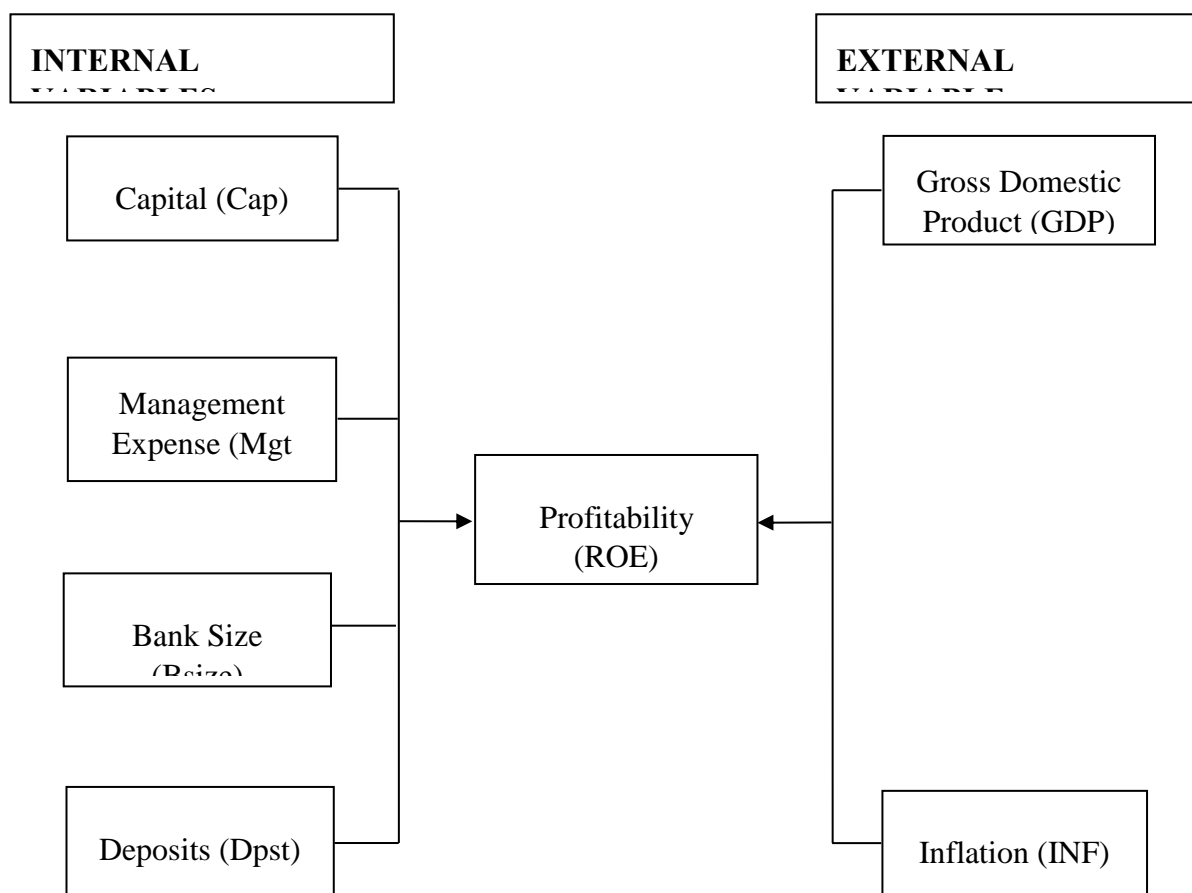
sends a strong positive signal to the market that the bank is very confident about the projects & consequently their level of profitability will increase. Accordingly, bank signals private information implies that high profitability is expected by increasing cap. This means that lower leverage can result in higher performance with the banks that can increase their equity. Thus, the equity ratio is an important indicator of banks' performance.

Conceptual Framework

Conform to Smyth, R. (2004) that the conceptual framework consists of a series of broadest ideas and theories which help the researchers appropriately to identify problems, select questions, and find appropriate literature. Most academic research studies are used a conceptual framework from the outset because it helps researchers simplify their research goals & questions.

The conceptual framework depicts the overall picture of the topic and presents directions to interested people for the extension of the proposed study.

Determinants of profitability of IBs



RESEARCH METHODOLOGY

Nature of the Study

This study explores the determinants that effect the profitability of IBs in Pakistan. ROE is used as a proxy in order to measure firm profitability. The researcher used a quantitative point of view to set up cause-effect relationship between variables those were already reported in previous studies.

Research Population and Sample

The population of the study consists of IBs in Pakistan. Recently there are 21 IBs in Pakistan, and currently there are 4 IBs in Pakistan known as Dubai Islamic bank, Meezan bank, Al Baraka bank, & Bank Islami Pakistan Limited's, which are working under Shariah Compliant mode and 17 CBs with Islamic branches and windows. To achieve the basic reason of the study of sample comprises of 4 full-fledged IBs purposive or judgment sampling selected from SBP for the previous 12 years.

Data Collection

The data is obtained by reviewing various documents provided by the departments of the researchers' interests, such as accounting journals, financial regulations and audit reports. Data is obtained by reviewing annual reports and articles of IBs in Pakistan. This data is mainly gathered from secondary sources and includes the Islamic banking Sector's 12-year annual report. In terms of external variables, data is retrieved annually from the SBP.

Variables

Response variable (Profitability)

In this article profitability is used as a response variable and it is measured by ROE. It is calculated as a ratio of net income and total Equity. It helps identify the performance organizations, regardless of how much revenue they generate or create from the assets Asadullah, M. (2017). It is measured as follows.

$$\text{Return on Equity} = \frac{\text{Net income}}{\text{Total Equity}}$$

Independent variables

Capital (Cap)

It explains that a bank with high capital ratio and more equity is safe, with an advantage for acquiring higher profitability (Chan and Vong, 2009). Another study by Bashir (2000) measured capital, as a ratio of total equity divide by total asset for IBs. We measure cap as follow

$$Capital = \frac{Total\ Equity}{Total\ Assets}$$

Management Exp (Mgt Exp)

Mgt Exp also an important factor for the profitability of banks. Adversely managed Mgt expense leads towards to poor profitability, and efficiency expenses increase a bank's profit (Kok, Y. T *et al* 2012). While Ramadan *et al* (2011) measured Mgt exp as a ratio between operating expense to total assets. Vong, *et al* (2009) The Mgt Exp variable is expressed as the ratio of non-interest expenses divide by total assets. We measure the Mgt Exp as follow

$$Expense\ Ratio = \frac{Operating\ Expense}{Total\ Assets} \text{ OR } \frac{Non - interest\ expense}{total\ assets}$$

Bank size (Bsize)

Bsize is one of the important factor for the measurement of profitability of banks . There are various measurement of size of the firm. Rukh, L., ur Rehman, S., & Khan, S. (2017) measure the size of the firm as a log of total asset. In this research study we measure Bsize by taking natural log of total Asset.

Deposits (Dpst)

Aslam, Inamullah, & Ismail, (2016) argue that bank deposits are the liabilities of banks & it can be calculated as follow, the proxy of dpst is total amount of total dpst to total assets.

$$Deposit = Total\ Deposits/Total\ Assets$$

Inflation (INF)

Change in consumer price for a specified time period is called inflation. At a consumer end the inflation is shown by a rise in index. CPI is calculated for different regions, types of consumer, types of products, etc. CPI is calculated monthly and yearly for examining the variation in index. (Rukh *et al* 2012).

Gross Domestic Product (GDP)

GDP measures as growth in all economic activities (Ijaz and aslam 2014). This study has taken annual GDP of the country.

Financial ratios of Islamic Banking division of Meezan Bank, Dubai islamic Bank, AlBaraka Bank, Bank islami Pakistan are used as obtained data from Bank scope database. This study is used Panel data regressions model to examine the determinants that effect the profitability of IBs.

Model Specification

$$ROE = f(Cap, Mgt\ Exp, Bsize, Dpst, GDP, INF)$$

According to past literature, multiple regression analysis is used to examine the determinants of IBs profitability. The content of the model is:

$$ROE = \beta_0 + \beta_1 Y_1 + \beta_2 Y_2 + \beta_3 Y_3 + \beta_4 Y_4 + \beta_5 Y_5 + \beta_6 Y_6 + \mu.$$

Where:

Explanatory Variable

ROE = Return on Equity

Explained Variables

Y1 = Cap ratio

Y2 = Mgt Exp

Y3 = Bsize

Y4 = Dpst

Y5 = GDP

Y6 = INF

β_0 = constant.

μ = Error term or disturbance from IBs Division.

This research study has used panel regression model analysis to check up the determinants of IBs profitability. The regression model was performed on one dependent variable known as ROE proxies for measuring profitability.

FINDINGS & DISCUSSION

This research study examines the determinants that affect the IBs's profitability in Pakistan. Table 1 shows the descriptive statistics in which standard deviation, mean, minimum and maximum values and results are presented. Table 2 is a correlation matrix. It shows the correlation between the dependent and independent variables. Table 3 shows the regression results. Table 4 shows the result of VIF (Variance INF Factor) test.

Descriptive Statistics

Such statistics are very essential because if we just present unorganized data we cannot get enough and useful information. Therefore, descriptive statistics makes the data more meaningfully, which makes the data simpler to interpret (Khan, *et al.* 2014).

Table 1 shows the descriptive statistics in which standard deviation (std dev), means, minimum and maximum values and results are presented. In table 1 the descriptive statistics results show that mean value of ROE is .0265073, while the standard deviation is 170123 respectively. The other variables related to Islamic banking industry are Cap having mean value is .1183421 & the standard deviation is 0939933. The means value of Mgt Exp is .0375366 & the standard

deviation is .0147732 respectively. Similarly, the mean value of Bsize is 7.85553 & the standard deviation value is .5336573.

Table 1. Descriptive Statistics

Variables	Obs.	Means	Std. Dev.	Min	Max
ROE(Profitability)	48	0.026507	0.170123	-0.908153	0.254546
Cap	48	0.118342	0.093993	0.0465481	0.494859
Mgt Exp	48	0.037537	0.014773	0.0217895	0.090585
Bsize	48	7.85553	0.533657	6.388864	8.895405
Dpst	48	0.784379	0.15102	0	0.887132
GDP	48	4.184167	1.521301	0.36	5.82
INF	48	9.103333	4.905547	2.5	20.3

The mean value of Dpst is .7843792 & the standard deviation is .1510196. Moreover, the mean value of GDP is 4.184167 & standard deviation value is 1.521301. The mean value of INF is 9.103333 and standard deviation of INF is 4.90554. These results show that overall banking productivity is just ordinary and meagerly manages the expenses.

Correlation Matrix

Table 2 shows the correlation matrix it shows the correlation coefficient between variables. Every cell in the table shows a correlation between two variables. Correlation matrix is used as inputs to advance analysis for summarizing the data.

Table 2. Correlation Matrix

	ROE (Profitability)	Cap	Mgt Exp	Bsize	Dpst	GDP	INF
ROE	1.0000						
Cap	0.2110	1.0000					
Mgt Exp	-0.5715	0.5855	1.0000				
Bsize	0.7057	-0.7357	-0.7026	1.0000			
Dpst	0.7719	-0.5304	-0.5436	0.7805	1.0000		
GDP	0.0355	0.1470	-0.0732	-0.0251	-0.2915	1.0000	
INF	-0.1215	0.2741	0.3551	-0.3969	-0.1038	-0.4279	1.0000

Table 2 exhibits the correlation result of ROE with other variables in the model. The findings revealed a negative correlation of Mgt Exp, and INF with ROE; while Cap, Bsize, Dpst, GDP are positive correlated with ROE. Mgt Exp, GDP and INF positive correlated with Cap while Bsize and dpst are negatively correlated with Cap. Bsize, Dpst and GDP are negatively correlated with Mgt Exp while INF is positively correlated. Dpst have positive correlation with

Bsize but GDP and INF are negative correlated with Bsize. GDP and INF have negative correlation with dpst. INF has negative correlation with GDP.

Panel Regression Analysis

Panel Regression is the most suitable statistical tool (Asadullah 2017). As the data of current study is panel in nature so the author has used panel regression.

Table 3. Summary Statistics of Regression Analysis

Source	SS	df	MS
Model	1.14627	6	0.191045
Residual	0.213997	41	0.005219
Total	1.360266	47	0.028942
Number of Obs.	48		
F (6, 41)	36.6		
Prob>F	0.000		
R-Squared	0.8427		
Adj R-Squared	0.8197		
Root MSE	0.07225		

Table 3 and Table 4 present the Panel regression analyses result for ROE. Total numbers of observations in the current study are 48.

Table 4. Table of Coefficients

OE	Coef.	Std. Err.	T	P > t	[95% Conf. Interval]
Cap	1.180805	0.1755697	6.73	0.000	.8262349 1.535375
Mgt Exp	-2.906181	1.032494	-2.81	0.007	-5.8123624
Bsize	0.2247654	0.0477707	4.71	0.000	.1282905 .3212403
Dpst	0.5232937	0.129609	4.04	0.000	.2615431 .7850444
GDP	0.0073106	0.0087029	0.84	0.406	-.0102651 .0248864
INF	-0.0050377	0.0027215	1.85	0.071	-.0004585 .0105338
Const	-2.257021	0.3458466	-6.53	0.000	-4.512043

The coefficient for every variable represents the positive or negative effect on the respective dependent variable. Similarly, t-value and p-value indicate whether the independent variables have significant or insignificant impact on dependent variable. The F statistics specifies the

overall strength of the model. The t value has shown; when T value is 2 or greater than 2 that show significant relationship. Conversely the t value less than 2 it means that show insignificant relationship. The author found that there are four significant variables at 5% i.e cap, Mgt Exp, Bsize and Dpst of Islamic banks. Here, cap, Bsize and dpst have significant and positive whereas Mgt exp has significant and negative relationship with profitability of IBs, While GDP and INF are insignificant relationship with the IBs profitability.

Test for Multicollinearity (Variance inflation Factor)

VIF is usually used to find out the level of multi-collinearity between independent variables in a regression model (Khan, *et al* 2014).

Table 5. Variance Inflation Factor

Variables	VIF	1/VIF
Bsize	5.85	0.170874
Dpst	3.45	0.289860
Cap	2.45	0.407786
Mgt Exp	2.10	0.477311
INF	1.60	0.623073
GDP	1.58	0.633536
Means VIF	2.84	

To reconfirm multicollinearity, the VIF test is too used as shown in Table 4. When value is less than 10 then there is no multicollinearity (Gujarati, 2004). Since entire values of VIF shown in Table 4 that all variables below than 10, we conclude there is no multi-collinearity among narrative variables

CONCLUSION

This study aims to investigate the effect of different determinants affecting the profitability of IBs in Pakistan and to evaluate the relative importance of micro and macro determinants of IBs profitability. Annual data is examined for the period of 2008-2019. Panel data regression is used. ROE is treated as dependent variable. While Cap, Mgt Exp, Bsize, Dpst, GDP and INF are regressed as independent variables. The Internal variables are Cap, Mgt Exp, Bsize, Dpst and external variables are GDP and INF. The author found that there are four variables are significant at 5% i.e. cap, Mgt Exp, Bsize and Dpst of IBs, where GDP and INF are insignificant. The result obtained shows that Cap and profitability have significant and positive relationship, it suggests that banks with high capital ratio are more profitable. The Mgt Exp has a significant & negative effect on the profitability of the firm. It concludes that when Mgt Exp increases it adversely affect the performance of the IBs. Results of Mgt Exp suggests that Management needs to reduce the Mgt expenses in order to boost the profits and improve the

performance. It can be done by reducing the reserves of loan and expenses of the banks. The Bsize have significant & positive effect on profitability of IBs. It suggests that larger banks get a higher ROE. Same results have been found by (Thornton and Molyneux 1992) and (Hu and Bikker 2002). The deposits and profitability have significant and direct relationship, It is also the liability for the banks, it suggest that more deposits leads to high profitability and less deposits leads to less profitability. External variables such as GDP and INF have insignificant impact on firm performance while the internal variables cap, Mgt exp, Bsize and dpst shows a significant impact from this it is concluded that the banks have a good opportunity to improve its performance by controlling the internal variables. In the correlation matrix the internal variables Mgt Exp is negatively correlated with ROE while internal & external variables Cap, Bsize, Dpst, GDP are positively correlated with ROE. External variable INF is negatively correlated with ROE.

Future Research Recommendations

In this research study only IBs are understudy. However, in future a comparison of factors of profitability of IBs & CBs can be studied; Furthermore, more variables can also be added to investigate its impact on firm profitability.

Cross country comparison of the different IBs can be done. Moreover, the macro and micro analysis of the determinant's effects on the profitability of IBs can be studied by using separate model for each.

It is too possible to compare the impact of profitability determinants in both sectors of banks: IBs & CBs. There are currently 4 fully IBs in Pakistan, and I believe that more IBs will be established in Pakistan in future; they can accumulate more new data and have larger sample size.

The findings provide an insight into the characteristics and practices of successful Islamic banks in terms of profitably. In view of these findings, we recommend for management of Islamic banks and policy makers that banks capitalization should be enhanced to improve their profitability. A well-capitalized banking system enhances financial stability. It also makes the industry more resistant to external shocks and risks and enables the banks to survive financial crisis. Islamic banks should also expand their branches network as it will generate more deposit and returns. Banks have a good opportunity to improve its performance by controlling the internal variables.

REFERENCES

Abduh, M., & Idrees, Y. (2013). Determinants of Islamic banking profitability in Malaysia. *Australian Journal of Basic and Applied Sciences*, 7(2), 204-210.

- Abreu, M., & Mendes, V. (2002). Commercial bank interest margins and profitability: Evidence from EU countries. *Porto Çalışma Tebliği*, 122.
- AHMED, U., & ASIF, M. Determinants of Firm-level Factors and its Effect on Liquidity Risk: A Study of Islamic Banking Sector of Pakistan.
- Akhtar, M. F., Ali, K., & Sadaqat, S. (2011). Factors influencing the profitability of Islamic banks of Pakistan. *International Research Journal of Finance and Economics*, 66(66), 1-8.
- Alfani, L., & Rustandar, I. (2013). The Impact of INF to Private Banking Profitability. *International Journal of Science and Research (IJSR)*, India, 2(3).
- Ali, M. (2016). Macroeconomic Determinants of Islamic Banks Profitability in Pakistan: a time series analysis. *Journal of Business Strategies*, 9(2).
- Al-Qudah, A. M., & Jaradat, M. A. (2013). The impact of macroeconomic variables and banks characteristics on jordanian islamic banks profitability: empirical evidence. *International Business Research*, 6(10), 153.
- Alshatti, A. S. (2016). Determinants of banks' profitability– the case of Jordan. *Investment Management and Financial Innovations*, 13(1), 84-91.
- Anbar, A., & Alper, D. (2011). Bank specific and macroeconomic determinants of commercial bank profitability: Empirical evidence from Turkey. *Business and economics research journal*, 2(2), 139-152.
- Asadullah, M. (2017). Determinants of Profitability of Islamic Banks of Pakistan—A Case Study on Pakistan's Islamic Banking Sector. In *International Conference on ADependent variableances in Business, Management and Law (ICABML)* (Vol. 1, No. 1, pp. 61-73).
- Aslam, M. K. Inamullah, & Ismail, M.(2016). Determinants affecting the profitability of Islamic banks: evidence from Pakistan. *International Journal of Operations and Logistics Management*, 5(2), 115-127.
- Asma'Rashidah Idris, F. F. A., Asari, H., Taufik, N. A. A., Salim, N. J., Mustaffa, R., & Jusoff, K. (2011). Determinant of Islamic banking institutions' profitability in Malaysia. *World Appl. Sci. J*, 12, 01-07.
- Asutay, M., & Izhar, H. (2007). Estimating the profitability of Islamic banking: evidence from bank Muamalat Indonesia. *Review of Islamic Economics*, 11(2), 17-29.
- Athanasoglou, P., Delis, M., & Staikouras, C. (2006). Determinants of bank profitability in the South Eastern European region.
- Bashir, A. H. M. (1999). Risk and profitability measures in Islamic banks: the case of two Sudanese banks.
- Bashir, A. H. M. (2003). Determinants of profitability in Islamic banks: Some evidence from the Middle East.
- Berger, A. N. (1995). The profit-structure relationship in banking--tests of market-power and efficient-structure hypotheses. *Journal of Money, Credit and Banking*, 27(2), 404-431.

- Bhatti, G. A., & Hussain, H. (2010). Evidence on structure conduct performance hypothesis in Pakistani commercial banks. *International Journal of Business and Management*, 5(9), 174.
- Chua, Z. (2013). Determinants of Islamic Banks Profitability in Malaysia. Available at SSRN 2276277.
- Dietrich, A., & Wanzenried, G. (2009). What determines the profitability of commercial banks? New evidence from Switzerland. In *12th conference of the Swiss society for financial market researches, Geneva* (pp. 2-39).
- Djoussé, L., Driver, J. A., & Gaziano, J. M. (2009). Relation between modifiable lifestyle factors and lifetime risk of heart failure. *Jama*, 302(4), 394-400.
- Elgadi, E., & Yu, P. Y. (2018). The profitability of Islamic banking in Sudan. *International Journal of Management Practice*, 11(3), 233-258.
- Flamini, V., Schumacher, M. L., & McDonald, M. C. A. (2009). *The determinants of commercial bank profitability in Sub-Saharan Africa* (No. 9-15). International Monetary Fund.
- Goddard, J., Molyneux, P., & Wilson, J. O. (2004). The profitability of European banks: a cross-sectional and dynamic panel analysis. *The Manchester School*, 72(3), 363-381.
- Gul, S., Irshad, F., & Zaman, K. (2011). Factors Affecting Bank Profitability in Pakistan. *Romanian Economic Journal*, 14(39).
- Guru, B. K., Staunton, J., & Balashanmugam, B. (2002). Determinants of commercial bank profitability in Malaysia. *Journal of Money, Credit, and Banking*, 17(1), 69-82.
- Haron, S. (2004). Determinants of Islamic bank profitability. *Global Journal of Finance and Economics*, 1(1), 11-33.
- Hassan Al-Tamimi, H. A. (2006). The determinants of the UAE commercial banks' performance: a comparison of the national and foreign banks. *Journal of Transnational Management*, 10(4), 35-47.
- Hassan, M. K., & Bashir, A. H. M. (2003). Determinants of Islamic banking profitability. In *10th ERF annual conference, Morocco* (Vol. 7, pp. 2-31).
- Heggestad, A. A. (1977). Market structure, risk and profitability in commercial banking. *The Journal of Finance*, 32(4), 1207-1216.
- Javaid, S., Anwar, J., Zaman, K., & Gafoor, A. (2011). Determinants of bank profitability in Pakistan: Internal factor analysis. *Mediterranean Journal of Social Sciences*, 2(1).
- Khan, M. M. S., Ijaz, F., & Aslam, E. (2014). Determinants of profitability of Islamic banking industry: An evidence from Pakistan. *Business & Economic Review*, 6(2), 27-46.
- Kok, Y. T., Tan, S. Y., Yong, M. S., & Tan, K. W. (2012). *The determinants of Islamic banks profitability in Malaysia* (Doctoral dissertation, UTAR).
- Kosmidou, K., Tanna, S., & Pasiouras, F. (2005). Determinants of profitability of domestic UK commercial banks: panel evidence from the period 1995-2002. In *Money Macro and Finance (MMF) Research Group Conference* (Vol. 45, pp. 1-27).

- Younas, m., ahmed, u., khan, n., & shahbaz, q. U. A. (2017). Impact of corporate governance of islamic banks on financial performance: a study of pakistan, india and bangladesh islamic banking system. Page | i, 1.
- Molyneux, P., & Thornton, J. (1992). Determinants of European bank profitability: A note. *Journal of banking & Finance*, 16(6), 1173-1178.
- Noman, A. H. M. (2015). An empirical investigation of the profitability of Islamic banks in Bangladesh. *Global Journal of Management And Business Research*.
- Pasiouras, F., & Kosmidou, K. (2007). Factors influencing the profitability of domestic and foreign commercial banks in the European Union. *Research in International Business and Finance*, 21(2), 222-237.
- Pratomo, W. A., & Ismail, A. G. (2006). Islamic bank performance and cap structure.
- Ramadan, I. Z., Kilani, Q. A., & Kaddumi, T. A. (2011). DETERMINANTS OF BANK PROFITABILITY: EVIDANCE FROM JORDAN. *International Journal of Academic Research*, 3(4).
- Rukh, L., ur Rehman, S., & Khan, S. (2017) Empirical Analysis of Factors Affecting Cash Holdings in Non-Financial Firms: Evidence from Public Listed Firms of Pakistan.
- Saksonova, S., & Solovjova, I. (2011). Analysis of the quality and profitability of assets in the banking system and the impact of macroeconomic factors on its stability-Case of Latvia. In *International Conference On Applied Economics* (pp. 537-548).
- Shahid, M. S., Hassan, M., & Rizwan, M. (2015). Determinants of Islamic banks' profitability: Some evidence from Pakistan. *Pakistan Journal of Islamic Research*, 16.
- Shaikh, S. A. (2014). Determinants of Islamic Banking Growth in Pakistan. *Journal of Islamic Economics, Banking and Finance*, 113(3580), 1-16.
- Siddique, M. A., Khaleequzzaman, M., & Ur Rehman, A. (2016). Determinants of Islamic Banking Industry's Profitability In Pakistan for the Period 2004-2012. *Journal of Islamic Business and Management (JIBM), Riphah International University Islamabad, Pakistan*, 6(1), 41-61.
- Smyth, R. (2004). Exploring the usefulness of a conceptual framework as a research tool: a researcher's reflections. *Issues in educational research*, 14(2), 167.
- Smyth, R. (2004). Exploring the usefulness of a conceptual framework as a research tool: a researcher's reflections. *Issues in educational research*, 14(2), 167.
- Steinherr, A., & Huveneers, C. (1994). On the performance of differently regulated financial institutions: Some empirical evidence. *Journal of banking & Finance*, 18(2), 271-306.
- Sufian, F., & Parman, S. (2009). Specialization and other determinants of non-commercial bank financial institutions' profitability: Empirical evidence from Malaysia. *Studies in Economics and Finance*, 26(2), 113-128.
- Sufian, F., & Shah Habibullah, M. (2010). Developments in the efficiency of the Thailand banking sector: a DEA approach. *International Journal of Development Issues*, 9(3), 226-245.

Vong, P. I., & Chan, H. S. (2009). Determinants of bank profitability in Macao. *Macau Monetary Research Bulletin*, 12(6), 93-113.

Wasiuzzaman, S., & Tarmizi, H. A. B. A. (2010). Profitability of Islamic banks in Malaysia: an empirical analysis. *Journal of Islamic Economics, Banking and Finance*, 6(4), 53-68.