

Nexus between Internal Factors of Islamic Banks and Their Profitability from Perspective of Pakistan

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Abstract

Islamic Banking in Pakistan has been continuously growing since 2001 and currently, five full fledge Islamic Banks are working. This study has investigated the inside factors which effect Islamic Banks' profitability. These internal factors include Capital Adequacy Ratio, Deposit ratio, operating expense with total assets ratio, Size, and Debt to Equity Ratio, and were taken as Independent variables in this study, whereas profitability return on asset was taken as a dependent variable. This study has covered the period of 2015-2020 and data was gathered from financial reports of Islamic Banks, previous studies which were conducted in Pakistan did not cover up to 2020 and mostly covered both internal and external factors but in this research, we have emphasized on internal factors exclusively. Panel Data was analyzed with step-by-step statistical techniques like POLS, BRUESCH-PAGAN TEST, RANDOM EFFECT, and HAUSMAN TEST and finally, Fixed Effect Model was applied through EViews version-11. According to the investigated results of this study, two independent variables capital adequacy and operating expense ratio had a positive and major influence on return on assets (Dependent Variable). Hence null hypothesis of these variables was rejected and concluded that only the capital adequacy ratio and operating expenses with total assets ratio positively affected Islamic banking profitability.

Keywords: Return on Assets, Deposit ratio, Operating expense to total assets ratio, Debt to Equity ratio, Capital Adequacy Ratio

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Introduction

Interest is the basic component of the Conventional Banking system, whereas Islam Prohibits Muslims to involve in Riba which refers to interest-based activities (Chong & Liu, 2009). Riba is prohibited in Quran and Adith. Islamic Banking is supported by the P&L sharing system and discourages riba-based transactions and it should not invest in activities such as gambling, alcoholic beverages, speculations, and other activities which are strictly prohibited in Islam (Islam & Rahman, 2017) More than 4 decades Islamic Banking has been increasing in the various countries in the world and total Assets of World's Islamic Banking touched 1 trillion Dollar \$ in the year 2015 (Ernst & Young, 2016) Globally Islamic finance assets increased 14% year on year to reach 2.88 trillion dollars in 2019 and it is forecasted that they will reach up to 3.69 trillion dollars in 2024, furthermore, Islamic finance assets contributed 1.99 trillion dollars in 2019 (Islamic Finance Development Report, 2020). In Pakistan Islamic Banking initiated its operation more than 3 decades ago, Islamic banking in the Pakistan market has vast market potential (Khan, Ahmad, Rehman, & Haleem, 2018). Currently, five fullfledged Islamic banks are workings Islamic banks provide various modes of investment such as Murabaha, Mudarbah, Ijara, Diminishing Musharakah, Salam, and Istisna (State Bank, julysep 2020).

Purwasih and Wibowo (2021) found the most effective factors of profitability of Islamic banks are operational cost, operating income, nonperforming financing, and the variable exchange rate which effect Return on assets in the short and long run both. Sultan, Ahmed, Ameen, Kumar, and Singh(2020) researched factors effecting a bank's profitability and it was found that quality of assets & size, liquidity, and deposits have a substantial effect on the profitability of banks, whereas inflation & capital adequacy ratio negatively effect. However, GDP has a significant effect bank's profitability. Khan, Mir, Khan, Reza, Khan, & Janjua (2016) analysed that banks are paying complete care to their customers for providing better quality services. .Abate and Mesfin (2019) researched factors effecting a bank's profitability and it was found that a bank's profitability is effected by both internal & external factors. Capital adequacy, leverage, and liquidity effect directly on a bank's profitability whereas interest, GDP, inflation, and operating efficiency have a significant and negative effect on the bank's profitability. Furthermore, it was also discovered that bank size and numbers of branches are an insignificant effect on a bank's profitability. Supiyadi and Arief (2018) examined the external&internal factors that effect the profitability of Islamic Banks of Indonesia covering the period 2010-2017. Internal factors include risk of credit, capital adequacy, liquidity, and asset size of bank whereas external factors include inflation and GDP. Results were found that capital adequacy, asset size, and credit risk have significant and negative effect whereas liquidity had a positive and significant impact on the profitability of Islamic banks. As far as factors that external concern, like inflation had positive whereas GDP had a negative and substantial impact on bank's profitability. Hassan and Ahmed (2019) examined bank-specific characteristics for the determination of profit of Islamic Banks of Bangladesh, data was covered from 2010 to 2017. Research was conducted to take the size of the bank, liquidity, capital to risk assets, nonperforming investment, and cost to time as independent variables, and profitability was taken as a dependent variable. Results found that Liquidity and Non-performing investment are positively correlated with Return on Asset whereas Bank size, Capital to risk assets, and cost to income are negatively correlated with Return on Asset. Our study is based on internal factors



of Islamic banks and to investigate these internal factors which effect more on their profitability, whether Capital adequacy Ratio, Deposit ratio, Size of Bank, Debt to Equity Ratio, operating expenses with total assets ratio have a substantial negative or positive effect on bank's profitability or have an insignificant effect. The aim and idea of the research are to thoroughly study and investigate internal factors of banks' profitability and to discover the deviation in these factors impacts on Return on Assets of a bank which is taken as a factor for Banks' profitability.

Literature Review

The literature related to elements of profitability of Islamic Banks is enriched with various factors. If we study the past research we found that these factors are divided into two categories external & internal. Various researches were conducted in this regard, some researches were conducted in comparison of the developed and underdeveloped Islamic banking market. Saleem and Ashfaque (2020) worked on Islamic Banks of Malaysia and Pakistan, core objective of the study was the comparison of profitability elements of Islamic banks working in Malaysia & Pakistan. For this purpose, data was gathered from fledged Islamic Banks, four full from Pakistan and Eight Banks from Malaysia for the period 2011 to 2017. Liquidity, Leverage, Efficiency, Size, and Asset quality were taken as Internal factors whereas GDP per capita and inflation were taken as macroeconomic factors, both were taken as independent variables. Profitability was taken as a dependent variable. Results show that macroeconomics factors, liquidity, size, and efficiency are the good predictor of profitability of Islamic banks in both countries whereas asset quality and leverage are not good predictors of profitability of Islamic banks in Pakistan because of the developing stage of Islamic banks. Harvanto (2020) studied the factors affecting the profitability of Indonesian Islamic banks. Efficiency, Bank risk, Liquidity of banks, CAR, and Macroeconomics variables such as GDP and Inflation was taken as Independent variables, and profit was used as DV dependent variable. Quarterly data was gathered covering the time from 2006 to 2019. Results indicated efficiency and bank risk positively effect, whereas inflation has an adverse impact and liquidity of banks, CAR, and Gross Domestic Product do not effect Islamic Banks 'profitability.

Hassan and Ahmed (2019) examined bank-specific characteristics for the determination of profit of Islamic Banks of Bangladesh, data was covered from 2010 to 2017. Research was conducted to take the size of the Bank, capital to risk assets, liquidity of banks, non-performing investment, and cost to time as independent variables, and profitability was taken as a dependent variable. Results found that Liquidity and Non-performing investment are positively correlated with Return on Assets whereas Bank size, Capital to risk assets, and cost to income are correlated negatively with return on assets. Ali (2018) worked on the comparative study of the factors affecting Islamic and non-islamic banks in Pakistan covering dated 2008-2012. Financial data was gathered from 17 conventional banks and 5 Islamic Banks. Return on Assets & Return on Equity were taken as dependent variables however, credit risk, liquidity, capitalization, bank size, efficiency, inflation, and GDP were taken as independent variables. outcomes were insignificant for all variables for both Islamic and non-Islamic banks. Liquidity is not playing a significant role in profitability. Credit risk and Capitalization are more essential for Non-Islamic Banks than Islamic Banks. The efficiency of Islamic banks is more than that non-Islamic banks. Inflation and GDP are negatively correlated. Supiyadi and Arief (2018) examined the external &internal factors of



profitability of Islami Banks of Indonesia from the dated 2010-to 2017. Internal factors include credit risk of banks, capital adequacy ratio, liquidity & asset size, whereas external factors include inflation and GDP. Outcomes revealed that capital adequacy ratio, asset size, and credit risk have significant and negative effects whereas liquidity had a positively & significantly impact on Islamic banks' profitability. As far as external elements are concerned inflation had positive whereas GDP had an adverse and substantial impact on Islamic banks' profitability.

Anwer and Jadoon (2018) examined determinants of profitability, Assets, investment and Deposits were used as independent variables, and return on Assets & return on Equity were used as dependent variables, results showed that assets, investment, and deposits are a significant impact on profitability. Asadullah (2017) analyzed elements of profitability in Islamic Banks. Data was collected from 2006 from 2015 for the Five Islamic Banks of Pakistan. ROA was used as a dependent variable and GDP, Inflation, size, and Liquidity were used as independent variables. only two variables have significant results, size has a negative whereas liquidity has a positive impact on profitability. Remaining variables have insignificant results. Husain, Affandi, and Abdul Shukur (2015) studied the Internal Factors of Profitability of Malaysian Islamic Banks. Return on Asset was taken as the dependent variable and bank size, capital adequacy ratio, liquidity, deposits & assets quality was used as independent variables. Data was gathered from sixteen Malaysian Islamic banks from 2008 to 2012. Results revealed that independent variables have the main influence on the Islamic banks' profitability. It was found that assets quality and size of the bank had a significant impact on profitability with negative and positive relationships respectively. The remaining variables have insignificant results.

Rahaman and Akhtar (2015) studied the impact of banks' specific factors on the profitability of Islamic Banks. data was gathered covering the period from 2009-to 2013 from the annual reports of eight Islamic Banks working in Bangladesh. Return on Assets was used as a dependent variable whereas the size of banks, capital adequacy, loan, deposits, and expense management(operating expenses) were used as independent variables. Results found that bank size and loan have a negative correlation with profitability whereas other independent variables are positively correlated. Khan, Ijaz, and Aslam (2014) studied elements of profitability of Pakistani Islamic banks. Data were collected from 2007-to 2014. Return on Assets, Return on Equity, and Earning per share (EPS) were taken as dependent variables whereas Size of Bank, Non-performing Loans Ratio, gearing ratio, operational efficiency(operating expense over Total Assets), asset composition, asset management, capital adequacy ratio, GDP and Consumer Price Index (CPI)are taken as independent variables. Results showed that the profitability of Islamic banks is significantly effected by CPI, the Ratio of Non-performing loans, deposit ratio, asset management & gearing ratio. We have developed the following hypothesis from the above literature:

Hol: There is no effect of the size of Islamic Bank on return on asset

Ho2: There is no effect of the ratio of deposit on return on asset

Ho3: There is no effect of capital adequacy ratio on return on asset

Ho4: There is no effect of operating expenses to total assets ratio on return on asset



Ramlana and Adnana (2016) conducted a relative examination of the profitability of Islamic and non-Islamic banks in Malaysia. The research was shown for the period covering from 2006 to 2011. Data was gathered from a Malaysian bank that is Bursa Malaysia and different banks' websites in Malaysia. In this research return on equity & Return on Assets were used as dependent variables and Total Loans with Total Assets and Total Equity to Total Assets were used as independent variables. Results exposed that Islamic Banks are extra gainful than Non-Islamic Banks. Return on equity and Return on Assets has a substantial relation to Total Equity with Total Assets. Ansari and Rehman (2011) assessed the performance of the leading Islamic bank (Meezan Bank) in Pakistan and associated it with a cluster of five non-islamic banks. the study was conducted from 2003-to 2007 and different financial ratios were analyzed debt to equity ratio is one of them.it was found that the debt to equity ratio has a significant impact on banks and it showed less riskiness of the bank and it indicated that's a lower risk of Islamic banks as in comparison to non-islamic banks and they concluded that Islamic banks can soak up financial distress than Conventional banks. We have developed the following hypothesis from the above literature:

Ho5: There is no impact of debt to equity on return on asset

After a deep study of previous literature, we have taken Return on assets as a dependent variable as previous studies have also taken because Islamic Banks do business which are Assets based mostly so return on assets is taken as Profitability. we have extracted independent variables from the literature too which are capital adequacy Ratio, Deposit, Size of Bank, Debt to Equity Ratio, and Operating expenses over sales ratio. As we studied the external factors GDP and inflation have no significance according to the economic condition of Pakistan so we have taken the internal factors of Islamic banks. We have worked work on all full-fledged Islamic Banks covering the period from 2015-to 2020 which previous studies have not covered.

Methodology

The research of this study is based on quantitative data which were taken from the financial reports of the Full-fledged Islamic Banks. We have worked on the total population so the Size of the sample was equal to five selective fully-functional Islamic banks of Pakistan as registered in the state bank of Pakistan. This study has covered the period of 2015-2020 and data was assembled from yearly financial reports of the Islamic Banks, For Panel Data testing in this study data was analyzed with step by step statistical techniques like POLS, BRUESCH-PAGAN TEST, RANDOM EFFECT, HAUSMAN TEST and finally Fixed Effect Model was applied through EViews version-11.



Theoretical Framework

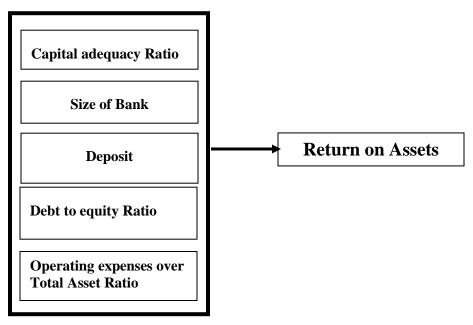


Figure 01: Theoretical Framework

Table 1: Variable Measurements

Variables	Explanation		
Bank profitability			
ROA ratio	ROA =Net income ÷ total assets		
Bank size	Natural log of total assets of each bank		
Debt to equity ratio	Total debt ÷ shareholder equity		
Deposits	Total deposits ÷ total assets		
Capital adequacy	Equity ÷ total assets		
Operating expenses to total assets	Operating expenses ÷ total assets		

Research model

ROA= β 0+ β 1DE+ β 2OE+ β 3S+ β 4CAR+ β 5DR + μ

ROA represent the Return on Asset

DE represents the Debt-to-equity ratio

OE represents the Operating expenses to total assets

S represents the Size

CAR represents the Capital adequacy ratio

DR represents the Deposits ratio

Data Analysis and Results



Two different methods usually used in panel analysis of data random and second one is fixed effect model which also known as a LSDV model. In this study Panel Data was analyzed with step by step statistical techniques like POLS, BRUESCH-PAGAN TEST, RANDOMEFFECT, HAUSMAN TEST and finally Fixed Effect Model was applied through EViews version-11. We first applied panel least square method for checking is it suitable for the data BRUESCH-PAGAN test was applied which is shown in below table.

Table.2

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothes Cross-section	is Time	Both
Breusch-Pagan	6.087923	2.614243	8.702166
	(0.0136)	(0.1059)	(0.0032)
Honda	2.467372	-1.616862	0.601401
	(0.0068)	(0.9470)	(0.2738)
King-Wu	2.467372	-1.616862	0.761162
	(0.0068)	(0.9470)	(0.2233)
Standardized Honda	4.692691	-1.365079	-1.547031
	(0.0000)	(0.9139)	(0.9391)
Standardized King-Wu	4.692691	-1.365079	-1.331215
	(0.0000)	(0.9139)	(0.9084)
Gourieroux, et al.*			6.087923 (0.0187)

As per this test if value of p is more than 0.05 than POLS method is suitable but value of p is lesser than 5% than above phrase is rejected and random or fixed would be suitable for the data calculation in it cross section. Bruesch-Pagan value is smaller than 0.05 then we applied next test Husman test.

Table.3 HUSMAN TEST

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

	Chi-Sq.	
Test Summary	Statistic Chi-Sq. d.f.	Prob.



Cross-section random	41.335934	4	0.0000
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Cross-section random effects test comparisons:

 Variable	Fixed	Random	Var(Diff.)	Prob.
DEP	-0.008666	-0.040649	0.001514	0.4110
SIZE	0.000641	0.000206	0.000000	0.0561
DTE	0.009871	0.018857	0.000180	0.5035
OE	-0.017295	-0.025086	0.000021	0.0873
	_	_	_	

As per the Hausamn test null hypothesis of Hausman test is Random effect is appropriate than Fixed effect Model, as we can see P-value of Hausman test is less than 0.05, it means that null hypothesis is rejected that's why we further applied fixed effect model.

Table.4: Fixed Effect Model Results

Dependent Variable: ROA

Method: Panel Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.021764	3.511567	0.290971	0.7741
CAR DR	0.135185 -0.035005	0.060661 0.043590	2.228524 -0.803056	0.0375 0.4314
S DE	0.000278 -0.001722	0.000480 0.025523	0.579927 -0.067463	0.5684 0.9469
OE	0.326751	0.138958	2.351438	0.0291

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Cross-section fixed

Internal Factors of Islamic Ranks		90	Noughoon Abbox
Durbin-Watson stat	1.655656	Prob(F-statistic)	0.000045
Hannan-Quinn criter.	1.928005	F-statistic	8.323253
Schwarz criterion	2.245652	Log-likelihood	-16.67879
Akaike info criterion	1.778586	Sum squared resid	5.340076
S.D. dependent var	0.934790	S.E. of regression	0.516724
Mean dependent var	1.005667	Adjusted R-squared	0.694445
Root MSE	0.421903	R-squared	0.789272

Internal Factors of Islamic Banks and Their Profitability

Nousheen Abbas Naqvi, Syed Ali Raza Rizvi, Dr. Sohaib Uz Zaman & Sanam Iqbal

Under the above table capital adequacy and operating, the expense to total assets probability value was less than 0.05 which means both variables are significant as compared to the remaining variable because size, deposits, and debt to equity values were more than 0.05 which showed that these had insignificant. Coefficient showed that if capital increased by one then ROA increased by 0.13 other factors remained constant which means there is a positive relation between both of them but deposit and debt to equity ratio showed that if it increased by 1 then ROA decreased by 0.03 and 0.001 which indicated a reverse relationship. The remaining size and equity both values had a positive link with the dependent variable. Then the eye-catching thing in the table was the R-squared value which is 0.789 near 1 which exhibited that the Independent Variables of the research would be forecasted at 78.9 percent true value of its dependent variable. In other words, it indicates that the model had a better and more predictive variable had. Durbin – Watson in that table is 1.65 which is less than 2 % and evidence that there is a positive correlation of serial. F-statistic is also high which shows a better model.

Discussion and Conclusion

This study has exclusively investigated the internal factors which affects Islamic banks' profitability. These internal factors include Capital Adequacy Ratio, Deposit ratio, Operating expense to total assets ratio, Size, and Debt to Equity ratio and were taken as Independent variables in this study, whereas profitability return on asset was taken as a dependent variable. This study has covered the period from 2015-to 2020 and data was gathered from yearly financial reports of Islamic Banks. In our investigation, it was also found that operation expenses (IV) have a direct and significant relationship with the Return of Assets(DV) and the result was the same as those (Purwasih & Wibowo, 2021) found that the most effective factors of profitability of Islamic banks and operational costs are one of them which effect on Return on assets in short and long run both and reason of the similarity of the same result may be Indonesia is one of the Islamic countries like Pakistan and internal economic conditions can be similarly effected on bank's profitability.

The statistical result showed in our investigation that the size of the bank has an insignificant influence on banks' profitability whereas (Saleem & Ashfaque, 2020) worked on Islamic Banks of Malaysia & Pakistan, the core objective of the study was the comparison of profitability elements of Islamic banks working in Malaysia and Pakistan and apart from other factors results of size as independent factor shows that size is a good predictor of profitability the of Islamic banks of both countries so our result is not consistent with them and the reason of difference in statistical result maybe they have made a comparative analysis of both countries and Malaysia is running most successfully Islamic banking so the size of banks can be a significant impact on banks profitability, whereas we have worked on only Five full-fledged Islamic banks of Pakistan.

Capital adequacy ratio as an internal factor we discovered that it has a positive and substantial impact on Islamic banks' profitability and the consequences of our investigation are not consistent with those (Supiyadi & Arief, 2018) they examined the external & internal factors of profitability of Islami Banks of Indonesia and Internal factors include credit risk of banks, capital adequacy ratio, liquidity & asset size. Outcomes revealed that capital adequacy ratio, asset size, and credit risk have significant and negative effect whereas liquidity had a



positively& significantly influence on Islamic banks' profitability. our results showed that the Capital Adequacy ratio has a positive and substantial influence on a bank's profitability whereas they found CAR outcome negative and significant impact, may be the internal economic condition of Indonesian banks one of the reasons for it.

Total deposits to total assets mean deposits ratio was one of the internal factors which were also investigated in our studies and it was found in the statistical results that deposits have a negative and insignificant impact on profitability our results are inconsistent with the previous research as conducted by (Anwer & Jadoon, 2018) they examined determinants of profitability, Assets, investment and Deposits were used as independent variables and return on Assets & return on Equity were used as dependent variables and results showed that assets, investment, and deposits are positive and substantial impact on Return on assets which is taken as profitability.

Total equity debt was also tested in our research a statistical result showed that equity debt has an insignificant impact on banks' profitability these results are inconsistent with the previous literature, a research conducted by (Ansar & Rehman, 2011) and they assessed the performance of leading Islamic bank in Pakistan and associated with a cluster of five non-Islamic banks. the study was conducted from 2003-to 2007 and different financial ratios were analyzed debt to equity ratio is one of them, it was found that debt to equity ratio has a significant impact on banks and it showed less riskiness of the bank and it indicated that's lower risk of Islamic banks as in comparison of non-islamic banks and they concluded that Islamic banks can soak up financial distress than Conventional banks. The difference in results may be the reason that we have worked on all full-fledged Islamic banks' data only and they have worked on Meezan bank only and compared it with a cluster of five non-Islamic or conventional banks.

Finally, it can be concluded that our investigated outcomes generated in e-views statistically showed that capital adequacy and operating expense ratio out of the remaining independent variable had an impact on return on assets (Dependent Variable). Because these two value of significance were lesser than 0.05, hence null hypothesis of these variables were rejected and concluded that only capital adequacy and operating expenses ratio positively affected Islamic banking profitability.

Policy Implication

This study results enlighten financial managers, policymakers of Islamic banks, and researchers on the significance of internal variables and their influence on Islamic banks' profitability. As per the results of this research capital adequacy ratio and operating expenses to total assets ratio have a substantial and positive influence on return on assets so financial policymakers of said institutions should consider these internal factors while making financial policy and utilize them in a better way because these factors may play a vital role in enhancing the profitability of Islamic Banks and management can make a wise financial decision for the prosperity of the institution.

Limitations

This study research has some limitations due to time constraints we have included only selected internal variables more internal variables like liquidity, quality of the assets, and credit risk may also be added in future research apart from internal factors external factors can also be included like interest rate, tax rate, etc. which can be affected the return on assets.



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