Parameters of conventional and Islamic Bank's profitability in Pakistan: Evaluation of Internal Factor

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Abstract

Financial sector is the perquisite for economic progress. In Pakistan from the past few years banking sector faces many challenges, it is mandatory to recognize the determinants effect the performance of banks. This study aims to analyze the key determinants of profitability of conventional and Islamic banks and to investigate the relationship between banks' internal characteristics and performance in Pakistan. This study evaluates the effect of banks parameters and microeconomic meter on the conventional and Islamic banks profitability in the Pakistan for the period of 2006-2010. The results found that variables used in the model have sturdy effect on the profitability and higher total assets may and may not be positively related to higher profit. As the asset of the bank and network increases there may be inefficiency in the management of the banking sector.

Key words: Parameters, Determinants of profitability Financial Institutions, Banks, Profitability.

1.   INTRODUCTION

The financial institutions are the engine of good financial system and play a pivotal role in the economic growth, which help the investor to invest and get return and it's add strength and power to the system. The profitability is the yardstick for the formation of steady and sound position in the country economy. (Albertazzi & Gambacorta, 2009). Globally, Major countries financial system consist of banking sector which emphasis on profitability and lucrative banking sector is capable to endure financial distress and add value to the economy (Aburime, 2009).The two determinants of profitability are internal factor and external factor, further the internal determinants (liquidity, capital adequacy and expenses management) and the external determinants (ownership, firm size and external economic conditions). The profitability and the size (total asset) of the financial institution have positive relationship. (Goddard, Molyneux and Wilson, 2004). The number of polices, strategies, decision give the indicator of profitability. The combined effect of liquidity, asset management and debt management can be measured through profitability of the firm. Efficient management of expense lead to high bank profitability while, the macro indicators, high interest ratio associate with low bank profitability and inflation have the positive relation with bank performance.

1.1   PROBLEM STATEMENT

 In banking sector the entire conventional and Islamic banks started operation with an aim of enhancing productivity, efficiency and profitability to get a superior position in the financial system. These banks will face the challenges and trying to getting competitive advantage. In this study the key indictors have taken' that effect banks' performance and have been utilized in most studies available.

1.2   OBJECTIVES OF THE STUDY.
- To analyze the key determinants of profitability of conventional and Islamic banks in Pakistan.

- To investigate the relationship between banks' internal characteristics and performance.

2. LITERATURE REVIEW

Neeley and Wheelock (1997) examined the profitability of insured commercial banks in the US in the year 1980-1995 periods and concluded that bank performance is positively related to the annual percentage changes in the state's per capita income. Demirguc-Kunt and Huizinga (1999) conduct a study of 80 countries about the developed and developing countries during the period 1988-1995. The researcher explained the determinant of banks and concluded that domestic bank have lower profitability than the foreign banks in developing countries, further overall result shows that the capital ratio and financial performance are directly related. Demerguç-Kunt and Huizingha (2001) examined banks structure and profitability of developed and development countries in the year of 1990-1997 and concluded that financial development has a very important impact on bank performance. The stock market development also contributes in the profit. Spathis, Kosmidou, and Doumpos (2002) investigated profitability indicators for effectiveness of small and large banks of Greek banking system with the use of ROA, ROE, and Net Interest Margin ratios. The researcher used panel data for 23 banks in the year of 1990 and 1999 in which seven were large and sixteen small banks. The results showed that large Greek banks have a higher ROA and have more access to resources than small banks. Surprisingly, small banks had large ROE and MARG as well as high financial leverage and high capital adequacy. Abreu and Mendes (2002) conducted a study that on interest margins and profitability of the commercial banks from four different EU countries for the period of 1986-1999. They examined that the larger bank have high interest margin and low cost of bankruptcy however, the net interest margin have positively relation with operating costs and the loan-to-asset ratio has a positive impact on interest margins and profitability. Pilloff and Rhoades (2002) found that the profitable boost as the volume of the bank inclined. Size of the bank means the total assets are increasing, which further affect the operating efficiency. Naceur (2003) noticed that bank having large size (i.e more asset) and overhead are linked with interest margin and profitability of the 10 tunisian banks during the period of 1980-2000. The researcher found that lone has positively linked associated while, size have the negative impact on profitability. Bashir and Hassan (2003) and Staikouras and Wood (2003) show that profit are negatively effected due to higher loan ratio. Athanasoglou et al. (2006, a) conducted a study in the South eastern European region, and selecting the credit institutions for the period 1988-2002. They found that banking reform has negative effect on profitability while, the internal determinants has a significant effect on profitability and macro factor show dynamic effect. Amor et al. (2006) on the commercial banks industry of the OECD (Organization for Economic Co-operation and Development) countries showed high profitability due to a higher leverage ratio and lower overheads ratio boost profitability.

Akhtar et al. (2011) conducted a study about the banking industry in Pakistan and to evaluate profitability of commercial banks during the period of 2006-2009 by using two regression models. The empirical result of gearing ratio NPLs ratio and asset management ratio showed considerable influence on the profitability of commercial banks in both models and also the size of the banks were important determinant of profitability. The ROE has insignificant relation with bank profitability while ROA is used as substitute for commercial banks profitability. Javid et al (2011) conducted a study and point out that for healthy and stable financial stable system, the banking industry play major role. The study used pooled Ordinary Least Square methods to explore the effect of assets, loans, equity, and deposit on the profitability indictor ROA over the period 2004-2008. The results showed that these entire variables have a strong influence on the profitability, while high loan is not significant but contribute in profitability. Equity and deposit have significant effect in profitability but it may not necessary that total asset lead to profit due to diseconomy of scales.

3.1 Research Method

The group data set covers a 5-year period from 2006 to 2010 with a sample of 26 commercial banks of Pakistan which include both conventional and Islamic banks (see appendix).The required financial data is obtained from the annual reports of banks from the particular websites, and from the

library of state bank of Pakistan. The multi-variant regression model is used on the pooled samples of cross banks.

$$Yit = \beta oit + \beta X1it + \beta X 2it + \beta X3it + \beta X 4\ it + uit$$

Where

Yit = ROA represents Return on Asset for bank *i* at time *t*.
*X*1it = Log (TA) represents natural logarithm of Total Asset for bank *i* at time *t*
X 2it = TE/TA represents ratio of Total Equity to Total Asset for bank *i* at time *t*
*X*3it= TL/TA represents ratio of Total Loans to Total Asset for bank *i* at time *t*
X 4 *it* = TD /TA represent ratio of Deposits to Total Assets for bank *i* at time *t*
it u = Error term.

The profitability indicators are return on asset, return on equity, total assets, total equity to total assets, total loans to total assets, and total deposits to total assets)

3.2 RESULTS, DISCUSSION AND ASSESSMENT

This part deals with the consequences of the study which including descriptive statistics, econometric results of the model, and tests for robustness applicable for the study. For many reason and differentiations the study area includes both the bank covenantal and Islamic banks. The observed evidence of profitability on parameters of banks or Return on Assets is based on balanced panel data. The table one and table two give the calculation of descriptive statistics and correlation and the results of R-square are given in table three. The value for R-squared in the model 0.64 show 65 percent fluctuation in the dependent variable explained by the independent variable. The 38 percent variation in the dependent variable remains impenetrable by the independent variable. The F-statistic value is 20.01 which is significant give back up to the stability of the model of the study. the log on(assets) have opposite (negative) relation with Return on assets. Size of bank is indicated by assets and this negative relation concluded as the size of the bank inclined the return on asset decreases. the bank having large size (i.e more assets) linked to lower profitability Naceur(2003).Capital ratio displays a greater effect on dependent variable Return on asset, it's having a direct (positive) and significant 1 percent relation with Return on assets, conclude that well-capitalized banks give high profit. The previous literature results support that the capital ratio and financial performance and profitability are directly related. Demirguc-Kunt and Huizinga (1999) Alkassim (2005),Vong *et al* (2006).

Total Deposits to total assets has the direct relation and greater influence on the profitability of the bank so, bank depend on that fund and can get high return. . This result is dependable with the results of the pervious authors that the deposit have positive and significant effect in profitability [Alkassim, F. A. (2005), javid (2011)].This result shows insignificant result the more the burden of loan with less the chances of return on asset but the relation is not decisive. Previous research literature supports the arguments of this study Athanasoglou et al. (2006). Multicollinearity test is used for (variance inflation factor). This test further holds the legality of the regression outcomes. No multicollinearity if the outcome lies between two point such that outcome < ten and tolerance near to zero advocate no multicollinearity, In case of VIF.(Gujrati, 2003). The result of VIF and tolerance are almost acceptable as mentioned in table 4. The values of variance inflation factor for the variables in the model ranges from 1.188 to 1.329 for total liability /total asset to total equity /total asset signifying the dearth of multi nonlinearity among the variables of the model.

3.3 ROBUSTNESS TEST OR INCREMENTAL REGRESSION:

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For the eradication of separate independent variables from the model as well as checking the impact on R-squared this incremental regression is a capsule which is used in majority of the literature. In the estimation the capital has tainted the vale R-squared to a maximum degree (22% decline in the segment of the dependant variable).the model measured the changed of the R-square from 65 percent to 43 percent and this huge change dictate that profit inequality in the model. The regression result is also raised the result of the coefficient 0.658 is maximum in the variables so, result are given in the tables 4 and 5 respectively.

4. CONCLUSIONS

This study evaluate the effect of banks parameters and microeconomic meter on the conventional and Islamic banks profitability in the Pakistan for the period of 2006-2010.As the asset of the bank and network increase there may be the inefficiency in the management. In this study we concluded that major internal factor i.e. Assets, Capital, Lone and Deposits provide shield of safety and maximally contribute in the bank profitability in the Pakistan.

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Table: 1

Statistic/Variables	ROA (%)	ASSETS ($)	TE/TA (%)	TD/TA (%)	TL/TA (%)
Mean	0.018	316510.0	0.068	0.798	0.565
Median	0.016	255600.5	0.063	0.807	0.573
Maximum	0.206	817758.0	0.227	0.895	0.709
Minimum	-0.054	66320.00	0.014	0.689	0.403
Standard Deviation	0.029	206315	0.040	0.047	0.055
Skewness	4.80	0.824615	1.392	0.495	0.630
Kurtosis	33.20	2.615575	6.349	2.928	4.115
Observations	52	52	52	52	52

Table 2: Correlation Matrix

Varibles	ROA	LOG(ASSETS)	TE/TA	TD/TA	TL/TA
ROA	1.000				
LOG(ASSET)	-0.155	1.000			
TE/TA	0.695	0.234	1.000		
TD/TA	0.139	0.035	-0.399	1.000	
TL/TA	-0.035	-0.362	-0.211	-0.005	1.000

Table 3. Incremental Regression: Dependent Variable: Return on Assets (ROA)

Variable OLS 1	OLS 1	OLS 2	OLS 3	OLS 4	OLS 5
Constant	0.051	0.061	0.157**	0.216***	-0.153**
	(0.55)	(0.36)	(0.03)	(0.09)	(0.03)
LOG(ASSET)	-0.016*	-0.016*	-0.015*	-0.009	----
		(0.00)	(0.00)	(0.23)	
TE/TA	0.648*	0.646*	0.576*	----	0.591*
	(0.00)	(0.00	(0.00)		(0.00)
TD/TA	0.140**	0.140**	---	-0.084	0.113
	(0.04)	(0.04)		(0.37)	(0.12)
TL/TA	0.010	---	0.004	-0.055	0.071
	(0.84)		(0.94)	(0.50)	(0.21)
R-squared	0.64	0.64	0.59	0.43	0.51
Adjusted R-squared	0.60	0.61	0.57	0.40	0.50
F-statistic	20.01	27.01	22.10	19.92	17.79
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

*Significant at 1%, **significant at 5%, ***significant at 10%

Table 4: Pooled Least Square Dependent Variable: ROA

Variable	Coefficient	Std. Error	t-Statistic	Probability value
Constant	**0.051**	**0.085**	**0.678**	**0.556**
LOG(ASSETS)	**-0.016**	**0.006**	**-3.603**	**0.000**
TE/TA	**0.691**	**0.087**	**8.356**	**0.000**
TD/TA	**0.129**	**0.04**	**2.263**	**0.032**
TL/TA	**0.011**	**0.054**	**0.199**	**0.844**

R-squared 0.64
Adjusted R-squared 0.59
F-statistic 20.01*
Indicates 0.01 percent significance level

Table 5: Values of Tolerance and Variance Inflation Factor (VIF) for ROA

Variables	Tolerance	Variances inflections factor
LOG(ASSETS)	**0.844**	**1.212**
TE/TA	**0.77**	**1.312**
TD/TA	**0.833**	**1.227**
TL/TA	**0.861**	**1.188**

Table 6: Results of Incremental Regression removing total equity as percentage of total asset

Models	Banks
R-squared (Original) **R-squared(after the removal)**	**0.65** **0.43**

Appendix

Sr	Conventional Banks		Sr	Islamic Banks
1	Allied Bank Limited		1	Meezan Bank Limited
2	Askari Bank Limited		2	Emirates Islamic Bank
3	Bank Al-Falah Limited		3	Al-Baraka Bank (Pakistan) Limited
4	Bank Al-Habib Limited		4	Bank Islami Pakistan Limited
5	Habib Bank Limited		5	Dawood Islamic Bank Limited
6	JS Bank Limited		6	Dubai Islamic Bank Pakistan Limited
7	NIB Bank Limited			
8	SAMBA Bank Limited			
9	SILKBANK Limited			
10	Standard Chartered Bank (Pakistan) Limited			
11	United Bank Limited			
12	National Bank of Pakistan			
13	The Bank of Punjab			
14	Faysal Bank Limited			
15	NIB Bank Limited			
16	Atlas Bank Limited			
17	MCB Bank Limited			
18	Summit Bank Limited			
19	KASB Bank Limited			
20	My bank Limited			