Factors Affecting Bank Profitability in Pakistan

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Abstract

The role that banks as key intermediaries play in the modern economy activities is unquestionable, it is admitted that banks remain one of the key financial intermediaries that provide a variety of services in the economy of every state. However, not all financial intermediaries have a significant impact on modern economies, only a stable and profitable banking sector can adequately play the role of financial intermediary in economy. The purpose of this research is to examine the relationship between bank-specific and macro-economic characteristics over bank profitability by using data of top fifteen Pakistani commercial banks over the period 2011-2016. This research we used the Ordinary Least Square (OLS) method to investigate the impact of assets, non-performing loans, equity, economic growth, interest rate and market capitalization on major profitability indicators i.e., return on asset (ROA), return on equity (ROE), return on capital employed and net interest margin separately. The empirical results have found strong evidence that both internal and external factors have a strong influence on the profitability. In conclusion, the empirical result shows that the bank specific factors are directly controlled by the Management thereby it has a positive correlation to the bank profitability while the industry specific (market concentration) also positively affects the bank profitability.

Key words*: Profitability, return on Assets, Return on Equity, GDP, NPL, Interest rate*

1. Introduction

The banking sector of the country play and significant role on the sharing resources of the state. They are supplying funds from investor to the depositor on legal way. The banking sector generates more income to cover their all operation expenses. On the research process, the circular of state bank of Pakistan draws attention about the fee based income.

Banks exist to intermediate the transactions between demanders and suppliers of money at a given consideration. Earnings from these transactions i.e from loans and deposits is traditional income generating activities. However, critical analysis of financial statements for commercial banks reveal a different trend, where over 80% of their net operating income comes from non- intermediation income generating activities Ahsan, (2004).

The researcher proposed to do the examination on business banks on the grounds that non-customary wages are watched higher than conventional salary in Pakistani Market. In this manner to know whether business banks can endure if there is deregulation or any adjustments in control in regards to non-conventional exercises in future is the inspiration of the specialist to do contemplate on banks of Pakistan. The scientist proposed to ponder the execution of business banks regarding ROA and ROE.

Ikhide, (2000) this study is not only about the banks and the economy they also discuss about the efficient and effective performance of the banking sector will be a key role in economy without the well develops bank system the economy will not be on the growth position. On other hand the bank profitability and performance also affect by the economic condition and the business cycle. From the both sides the study find that bank performance and the economy have strong relation for this purpose we need to understand that which factor have impact on bank performance and on economy. Thus, financial performance analysis of commercial banks has been of great interest to academicresearch.The output of financial institutions may be influenced by the two factor which internal and external. (Flamini et al., 2009). These factors are bank factor within the organization and the macroeconomic factors. The internal factor includes the management of the bank decision while the macroeconomic factor includes all factors throughout the country like political etc which affect the profitability of the bank. According to statistics, unveiled by NBP, the weighted interest rate spread of commercial banks stood at 54.5044 percent which is illustrated by below figure.
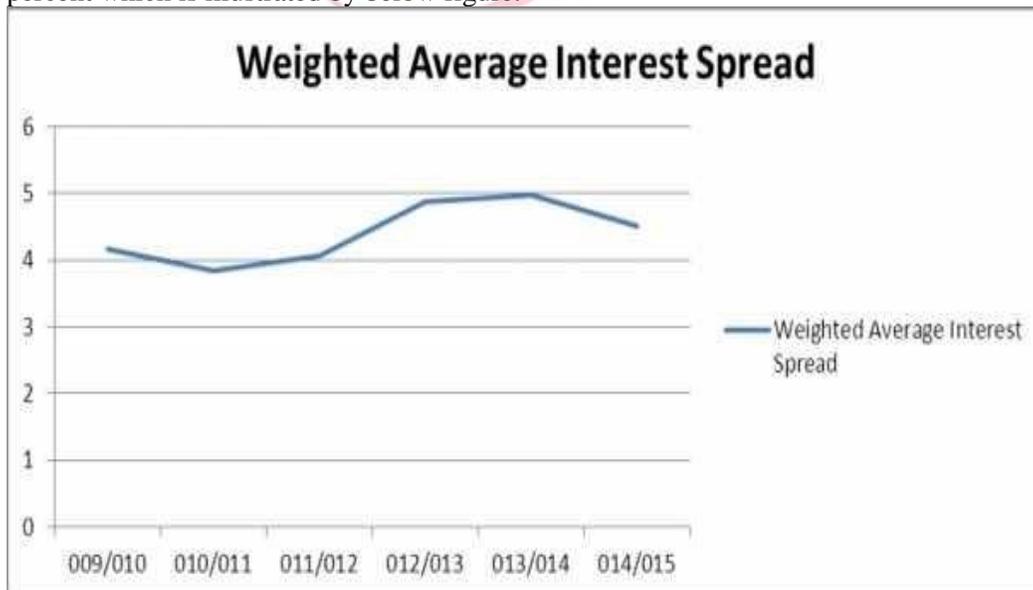

Fig 1.1: Yearly Weighted Average Interest Spread of Commercial Banks

Now days the banking sector mostly depend on the interest income. The high rating banks are morally involved in generating income through the interest base operations. In recent

research find that the small banks are based their earning on non interest based operation. This study also finds that some internal factors in banks which is influencing the non-interest income they use some variables to find the link among the bank performance and the factor which is selected. As The variable is Profit/(loss) on sale of assets, dividend

income, letter of credit, guarantee commission, remittance fee, exchange income, service charge and renewal fee is used as internal variables. As a result, there has been a huge shift to non-traditional financial activities as a way of maintaining their position as financial intermediaries. The changes are relevant for financial stability. The reason is straightforward. The more unstable is a bank's or any other firm's earnings stream, the riskier the firm is.

1.1 Statement of the Problem

The globalization of the banking sector around the world and become the most important factor of the country and for development of the economy. The banking sector launches their new products and services which is become lengthier. Now days the banking sector converts there earning source from traditional to nontraditional because of the lengthy procedure. Many of Pakistani banks enjoying their highest ration of earning through the nontraditional operation activities which is based on sales of assets, dividends income, LC exchanges etc. this research will help us to know about the effect of non-performing loan on bank performance. This study will find that which factor influence the connection among banking sector performance and the NPL. This analysis is centered on banks of Pakistan. So as to realize how banks are getting a charge out of overflow of non-premium pay and convergence of salary in non-conventional exercises, this work is completed. Therefore, the study focuses on following issues:

• Is there any link among the performance of bank and the selected variables (bank internal variables)?

• Which factor plays most key part (concentration) in determination of profitability of bank?

1.2 Research Objective

This research has the following major objective s which is stated below;

• To find out the factor which influence the non-performing loans?

• The main objective of this study to know the connection among selected variables for the study and bank performance that is ROA and ROE.

1.3 Significance of the Study`

This study is based on those entire factors are which is related to bank performance that is ROA, ROE. The main objective of this study to find out that which internal factor of the selected bank influence the bank performance for this purpose we selected the data from the year of 2010 to 2016. Further study will help to shareholder, decision maker and all upper level employees for strategy implementation furthermore, the present work enhances the prior examinations performed in the Pakistani setting and offers the esteem expansion to the current writing. The investigation will likewise assist government with knowing either expense based pay is an instrument of manageable financial advancement. As we know saving money parts have a key job in national monetary change process. The further investigation will assist government with exploring other investable zones instead of rehearsing expense and commission based exercises in the banks. Further may provide guidance to the contributor offices, business visionaries and businessmen and imperatively, fills the examination hole and give further information to researchers.

1.4 Research Hypotheses

This research is based on the following hypothesis which stated below to find the relation among the ROA, ROE.

Ho: Here is no significant link with credit increasing rate and deposit increasing rate.

H: here is significant link with credit increasing rate and deposit increasing rate.

Ho: here is no significant link with credit increasing rate and capital increasing rate.

H₁:here is significant link among credit increasing rate and capital increasing rate.

Ho: here is no positive connection other asset growth rate and credit increasing rate.

H₁:here is positive link other asset growth rate and credit increasing rate.

Ho: here is no positive link among bank profitability and inflation rate.

H₁: here is a positive link among bank profitability and inflation rate.

2. Literature Review

Molyneux and Thornton, (1992) argued in his study about the banking sector performance and profitability on different countries. For this purpose, the researcher takes 18 European countries as sample and collect data of 18 countries from 1986 t0 1989. After the analysis they found the positive significant relation among ROE with the ration of interest rates and government ownership during the study. Demirguc-Kunt and Maksimovic, (1998) stated in his study about the link among the profitability and firm size. The researcher found in his study that firm can easily meet their firm required capital if they have more extra funds to give loan to needy person so they can increase their profit and earning.

Havrylchyk et al. (2006) examine in his study about the relation among capital and the bank earing. He stated in his study that if bank have high profit so bank can able to increase their net interest income. After the analysis the researcher find the positive and direct relation among the capital bank profit. Miller and Noulas (1997) stated in his study about the connection among the credit risk and bank profit ability. He stated in his study about the above factor that is negatively co related with each other so its mean that there is high risk in involve so it's become the riskier for the loan supplies which is create difficulties to increase their profit.

Demirguc-Kunt & Huizinga (2001) find a negative connection between securities exchange capitalization and banks' productivity, it implies that value and bank financing goes about as substitutes as opposed to supplements. If there should be an occurrence of the business explicit components, the Structure Conduct-Performance preface bring up that developing business sector control improves the gainfulness (salary) of banks. As an issue of the real world, Molyneux and Thornton (1992) referenced that monopolistic benefits pursue out of significant avoidances from forceful market structures. Discoveries on the determinants of bank's advantage edge and benefit have focusing whether on a specific They verify that the best creating banks are the individuals who have exertion to show signs of improvement work and capital profitability, the individuals who have adjusted an abnormal state of store accounts relative to their benefits lastly, the individuals who have possessed the capacity to reinforce their value for the banks execution. Molyneux and Forbes (1995) explain market structure and performance in 18 European countries for the four years' period 198689, using pooled data. Their finding includes that anti-trust or regulatory policy should be designed at changing market structure in order to increase competition or the quality of bank performance. Increasing concentration in banking markets should not be restricted by antitrust or regulatory measures. Demirguc-Kunt and Maksimovic (1998) identified a positive relationship between size and profitability. They found that higher the funds can easily meet their rigid capitals so that they can have extra funds for giving loans to borrowers and thereby increase their profits

and earning levels. Havrylchyk et al. (2006) finds a positive and direct relationship between capital and profits of banks. It implies that a more efficient bank should have higher profits since it is able to maximize on its net interest income.

Hannan ,(1991) stated in his study about bank profit and market concentration. The researcher study in his study about the link between how the bank manages their profit and how independently make this profit reasonable. Also, this relationship took into consideration the supposition of benefit expansion, distinct costs, no cross-value impacts among advance and store classifications, and a security rate that does not change with security possessions. In the South African saving money part, the market structure hypothesis would enable the specialist to see how the augmentation of the market (size and dissemination of a bank) has influenced stores and in addition advances. One can contend that the extension of the market by making branches everywhere throughout the nation and offices, for example, ATMs and Internet Banking may invigorate stores which consequently would energize credits and positively affect benefit.

Finding the NPL has delayed related with the interest rate which affordable to find the reason which is cause of the financial crises. This strategy finds the factors which reduce the value of the assets and the assets are more important source for banking and financial sector. Keeton and Morris (1987) find in his study about the determinants of the non-performing loans in Guyana. They find that US banks during the year of 1979 to 1985 the net data and loss of the NPL during these years. The find in their study that local situation of the economy and the weak performance of the different sector explain the differences in loan losses which is bearer by the banks. Keeton (1999) used data for their research analysis during the 1982 to 1996 data used for their regression analysis that there is effect of the credit growth and the failure of the loans in US economy. After the proofs there is link among the credit growth and the damages assets. The author shows that repaid growth which is link with low credit rate which is cause of the high losses in US economy. Bercoff et al (2002) argue in his study that many other financial systems give the same result in US state. The Argentinean bank sector during the 1993 to 1996 period that NPL is affected by two types of factor banks specified factors and the macroeconomic factors. This macroeconomics factor separates to find the separate impact of the baking factor for this purpose using data from 1985 to 1997 to determinants of this factor in Spanish banking sector.

Many researches was done on bank profitability and the determinants which influence the bank profitability that factor may be the internal factor or some belong to external factor. Bank profitability basically depend on the bank internal and external environment that which determinants effect the bank profit and which involve in this issue as this factor belong to bank which is internal or external or they belong to the macroeconomic factor (Athanasoglou et al. 2008). Staunton, (2002) find in his study about the determinants of the bank profit and how then can manage the bank profitability. For that purpose, bank profitably divide into two different parts the first one is controlled by the management and the second who control the management. The first part of the classification of the bank profit known is internal determents and the second is external factor of the bank profitability. Ambar and Alper, (2011) argued in his study about the internal and external factor of bank profitability and its determinants. The researcher state in his study that regarding the bank profit how the management take decision and how they make policy for the objective achievement. For that his managements make some profitable strategies which can be implement on urgent bank according to the bank product, assets size and

deposit and its income structure. After this the bank management will know about his income through balance sheet and profit and loss accounts.

In the South African Banking Sector which takes help from the bank efficiency theories which provide the guidance which factor is clearly related to the bank profitability and also tell us that which factor effect the bank profit. Through this we know that which factor has negative effect on bank profitability or which factor is positively co related with bank profitability. After these bank determinates is positively correlated with bank profit so bank profit will be and vice versa. Berger, (1995) find in his study about the US banks and its profit. He researcher stated in his study about the US bank which is from 1980 in that time he banks profit ratio is very high during this time. That time the capital and earning have positive and strong relation and that that's was the riskier for the bank profit.

Salas and Saurina (2002) explained in his study that GDP growth is also depend on the higher the credit expansion the ratio of investment and the market power to tell about the variation in NPL. Non-performing loans related to the financial sector of the country which is backbone of the economy if the financial sector is in crises and bad condition the economy will be directly going on downside. This will be caused of the high financial crises throughout the country.

The previous study proves that there is strong link among the NPL and the many macroeconomic variables. These macroeconomic variables which is identified in previous study that is important factor is for the GDP growth. The GDP growth, interest rate, inflation rate, unemployment rate growth is this sector is real economic growth which is possible through the strong and effective financial sector. Salas and Suarina, (2002) find in his study about the link among the GDP and NPL. The analysis finds that there is negative link among the real GDP and the NPL. The research study proves that there is strong relationship among the GDP growth and the more money which improve the debt servicing the capacity and the lower ratio of NPL. Fofack (2005), find in his about the inflation rate and NPL. He fined in his study that inflation creates high level of the loans in African country. According the author, the inflation is cause of the loss of the commercial banks profitability in African countries that was just happened because of the low income high rate of poverty where the majority customer nota able to pay the loan that are also happened because of the high rate of inflation. The GDP growth is more important factor in every country when the GDP growth in on high ratio so its mean that the all organization of the country on profitable condition and also the standard of the living of the country citizen will also will develop.

Muhammad numan khan and Sharif zaman in 2014 study the relation among stock prices and macroeconomic variables like Gross Domestic Product (GDP), Consumer price index (CPI), exports, Money supply M2, Exchange Rate, FDI, and Oil prices. They used annual data from 1998 to 2009 and found that exchange rates and gross domestic product affect positively stock prices, while there is negative relation between customer price index and stock prices, however their outcomes were insignificant to M2, exports and oil prices.

Asma and ammara (2013) found significant positive impact of GDP per capital and gross domestic savings on PSX index, while discount rate and inflation have negative relation to PSX index; however, Emmanuel and Samuel (2009) found relatively insignificant results of same variables in Nigeria.

3. Methodology

In this research we used the panel data for 6 years from 2011 to 2016; we collect data from top 15 banks of Pakistan. My dependent variables are ROA, ROE and the independent variables are GDP, NPL and interest rate. The banks all data collected to state

bank of Pakistan, financial reports of the banks, and the data from World Bank and consumer's index. All data nature in Pakistanis rupees.

3.1 Population

The data of 34 banks represent all major sectors of banks of Pakistan. The figures are collected from state bank of Pakistan annual reports and Pakistan stock exchange.

3.2 Samples

The panel data set covers a 6 years' period from 2011-2016 with sample of top 15 banks listed on state bank of Pakistan and Pakistan stock exchange. The data will be taken from STBP AND PSX annual reports of Pakistan stock exchange as well from state bank of Pakistan official website.

3.3 Analysis technique

We will use OLS regression model for our analysis technique moreover the assumption of OLS i-e multi-collinearity, hetero skedasticity, auto correlation and normality will also check. As we will be using panel data for our analysis, so fixed effect and random effect regression analysis will be done. The Housman test will be used in order to find out whether fixed effect is good for our analysis technique or random effect, to measure the influence of corporate governance factors on dividend decisions making in non-financial firms. I wonder to check the stationary for panel data, unit root test will be also applied.

3.4 Econometric Model and Estimation Procedure

Many previous study is clear that there is several sign to explained that NPL influenced by the both the bank factors and the macroeconomic factors. In this study we used the econometric techniques for the analysis. Using of this model to which will find the relationship among the NPL total loans and the more important macroeconomic factors. The equation is

$$lnROA\_A_{i,t}lnROE\_A_{i,t.} = \beta_{0i} + \beta_1 lnNPL\_A_{i,t-1} + \beta_2 lnL\_A_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 \Delta LOANS_{i,t} + \beta_5 lnINF_t + \beta_6 \Delta GDP_{t+\varepsilon}$$

4. Statistical Reporting and Data Analysis

Table 4.1: Bank AL Habib Ltd Data from the year 2000 to 2011

Rs in Millions

Year	Gross Advances	Deposits	Profit Before Tax	Profit After Tax	NPLs	% of NPLs to Advances
2011	14,772	17,822	403	373	117	0.79%
2012	16,004	24,697	551	246	185	1.16%
2013	23,994	34,240	619	290	482	2.01%
2014	35,544	46,178	1,513	1,012	646	1.82%
2015	47,537	62,171	1,039	541	206	0.43%
2016	55,526	75,796	2,022	1,464	383	0.69%

(Source: Bank AL Habib Ltd Annual Reports)
Table 2: Model Summary and ANOVA:

Model Summary			ANOVA		
Model	**R Square**	**Adjusted R Square**	**Model**	**F**	**Sig.**
1	*.851*	*.796*	Regression	*24.097*	*.000*
			Residual		
			Total		

This table shows the fitness of model. R Square of 0.851 indicates that the model is 85.1% fit for the analysis. This model shows that the independent variables have explained almost 85.1 percent of the influencing factors that affect the profitability of Banks. However, this also indicates that there is 20.4 percent unexplained variation, which shows that there are some significant variables missing in the model. This may call for a further study in the same area. This table also indicates that the regression is highly significant at 0.05 level of significance as the Sig. value of regression is less than 0.05. This defines that there is a positive impact of log of growth rate (NPL's), $DGR_{i,t}$ is the deposit growth rate in each time period, $CGR_{i,t}$ is the capital growth rate, $OEAGR_{i,t}$ is the other assets growth rate has a significant relationship with LGR loan growth rate. F statistics value of 24.097 significant at 0.000 suggests that the model calculation of R square is correct.

Table 3: Coefficients

The statistical analytical report suggest that deposit growth rate has a significant

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	**Std. Error**	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
1 (Constant) LGR	.017	.010		1.689	.113		
DGR	.000	.000	.0228	.523	.609	.045	9.306
CGR	-.001	.000	-.0627	-1.284	.001	.569	1.498
OEAGR	-.011	.013	-.0107	-.836	.417	.231	1.146
NPLGR	.004	.002	.0340	1.867	.083	.431	2.318
Loan Loss Provision/Total Loans	-.300	.128	-.391	-2.346	.034	.379	15.947

relationship with loan growth rate as it reflects the value of 0.523 which stand with in non-critical region as well as capital growth rate has a significant relationship with the variable LGR as it reflects the value of t-stats of -1.284 which stands between the range of critical region. Other asset growth rate provides the t-stats of -0.836 which is still in the non-critical region and NPL growth rate. Provides result of 1.867 which is still in the non-critical region therefore all the variables show the rejected values that mean they have relationship with each other. Deposit growth rate analysis (DGR) represents the value of 0.0228 that mean that if loan growth rate expends by 1% then deposit rate could be expected to gain by 2.28% whereas same is the situation with the capital growth rate (CGR) if loan growth rate enhances by 1% then CGR could be reduced by 6.27%. if loan growth rate increases by 1% then it would be possible that OEAGR will decline by 1.07% where as if NPL's i.e. non-performing loans will increase by 3.4% if loan growth rate will increase by 1%.

5.1 Conclusion

This research approach provided us the role of NPL's on banks profitability and credit risk assessment moreover it explains that how loan growth rate is a basic driver for the non-performing loans. Statistical evaluation was based on the data charts of Bank AL-Habib Ltd which explains the rising trends in non-performing loans as per the diagrammed view mentioned above that explains that deposit rate have gain the high growth which explains the good capital adequacy ratio but still the profit after tax is showing the low trend value which means that there are less number of loans that are provided to the borrowers due to SBP strict regulations as well as it predicts that due to market risk Bank Al-Habib can

suffer losses in future as it have high deposit rate but it can be predicted that financer behavior is converting towards bank deposits rather than to take a risk and enjoy good profit. Moreover, it can be predicted based on BAHL data that most of the banking industry will suffer losses due to market risk situation and changing behavior of financers.

5.2 Recommendations

Based on our research results, its mean that the banking sector plays in important role and attention to many factors when the banking sector providing loans to reduce the unutilized of the loans. The main thing when the commercial bank need to global and local economy effect and the ability of the repayment of the loans. The financial institution also play role in the economic development and also loan which is paid to customer to use on the efficient way to play a role of the best economic indicator. When the economy on downs turns the requirement of the loan is increase because every corporation and customers want to decrease the ratio of loss and invest in different sector for the purpose of the portfolio.

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