
Impact of Non-Performing Loans on Profitability of HBL and NBP

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Abstract

The aim of this study was to comparatively analyze the impact of Non-performing Loans on Profitability of Banks because for any country it is very important that its banking system should be in a good position. The banking system is like a backbone for the economy, because it acts as an agent between the borrower and the lender. The borrower is the one who has need of money and the lender is the one who has the surplus of money. On the basis of results, it is concluded that there is a negative impact of the non-performing loans on the profitability of HBL and NBP. It is also found that HBL is good in getting the profit while securing itself through investing in Govt bonds and securities whereas NBP is not getting that return from its operations and it is recommended that both banks should lower down their risk of non-performing loans by securing the loan through a mortgage asset and the valuation of the mortgage assets should be determined on the basis of market value which explains that what will be the market value of the assets in the future, if the borrower becomes defaulter in paying back loan amount.

Keywords: Non-Performing Loan, Profitability, HBL, NBP

Introduction

1.1 Background

Banking and financial institutions are the backbones of any economy. Therefore, it is very necessary for any economy that its financial institutions must be in a good position. So that they can provide the money to them who need it from those who have the surplus of it, but there are issues in doing this for the financial institutions such as credibility of the customer. Which is a very big question to be answered by the creditors that how they can overcome this and protect their self from becoming a defaulter because it ultimately affects the economy as a whole. The look after of assets features, their competencies, and profitability are the important factors for the survival and development of any institutions. Loan issuance is the source for the banks to make their mark-up and generate profit, but these can become an issue of the headache for the financial institution to recover their loans which they have issued and ultimately face loss in their financial performance.

1.1.1 Non-Performing Loans

Non-Performing loans are the type loans in which banks are unable to recover the loaned amount. Poverty, unemployment and interest rate are the factors which causes NPL to rise. The best predictor for the financial health of the banking industry in any country can be determined by its ability to recover their loans. A decline in the ratio of non-performing loan shows the performance of public and private banks (Stuti & Bansal, 2013).

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1.1.2 Profitability

For the surveillance of any financial institution, it is very necessary that their financial performance should be positive. At the time of investment, investor is always interested in making more profit from his/her investment. In banks profitability, can be earned through the charging interest on their lending, but when their clients become defaulter than how they can earn their desire profit to give back to their investor.

1.2 Problem Statement

On the larger extent, it seems that whenever a bad loan increases their will negative impact on financial growth of banks (Karim, Chan, and Hasan, 2010, Kuo et al., 2010). As banking industries are increasing, their lending to its clients its NPL is also increasing which grew up to Rs.623 billion, the end of June 2018, which is an all-time high, according to the data updated by (State Bank of Pakistan, 2018).

The NPL of the National Bank of Pakistan has the highest ratio with 17.8% out of total loan outstanding while Habib Bank is on the second number with 10.8% NPL (Naseer, 2016).

1.3 Purpose of the Study

It is already stated that how non-performing loans are affecting the profitability of banks, therefore, our research will comparatively analyze the impact of Non-Performing loans on the profitability of both private and public bank in Pakistan which is HBL and NBP. To comparatively analyze that which bank is performing well in recovering the loans they have issued. After completing this study, we can be able to understand the impact of non-performing loans on the profitability of banks and it is to inform us that which bank is facing this problem at which extent.

1.4 Research Question

What is the impact of non-performing loans on the profitability of NBP and HBL?

1.5 Significance of the study

The significance of this study is to determine the impact of Non-performing loans on the profitability of both banks including HBL and NBP. This study will be beneficial for the students, bankers and financial institutions as well. With the help of this study, they can understand the phenomena impact of the non-performing loan and its impact on profitability that at which extent the non-performing loan is affecting the profitability and how to overcome this impact. Through Non-Performing loans banks can determine the cause of delay in recovering the loans and what amount of probability has been affected.

2 Literature Review

2.1 Underpinning and supporting theoretical Models

2.1.1 Moral Hazard

It is a phenomenon, which occurs when one party takes a higher risk because the consequence will be bear by another party. This phenomenon cannot be observed directly but can find out by others' behavior (Jensen & Meckling, 1976). Likewise, when banks lend their money to their borrowers, they do not have any information regarding their behavior

of becoming a defaulter. Mean they have a greater risk as compared to the borrower who has all the information about the banks. That which bank has more money and what are their policies for giving loans so that they can go to a loan from the particular bank or institution. Therefore, to save the banks from an increase in the non-performing loan, it is very necessary that banks should also have the information of their borrower to maximize their profitability.

2.1.2 Asymmetric Information theory

This theory is firstly given by Akerlof (1970) in his essay "The Market for Lemons" in which he stated that imperfect knowledge about the lending and borrowing where one party has more information than the other does. In this, the borrowers have more information than the lender. Auronen (2003) study the asymmetry of information where he stated that in the lending of money it is quite difficult to find out a good borrower from the bad ones that result in the hazard problem.

2.1.3 Agency Theory,

The first scholar who took the initiative on this theory was Ross (1973) and Mitnick (1973) these both studied this independently. Where Ross discussed his theory in the perspective of economic policy while Mitnick discussed it through institutional concept. Where these both have helped each to give this theory, which is as stated that there is a conflict arises between the management and shareholder of the company. In this management was always ready to take the risk for the expansion of the company, while the shareholder has the interest to get money whatever the company has earned right now. Similarly, this situation can come in banks where management always favors in providing loans to earn interest on the other hand shareholder will be in favor to take less risk by not issuing a heavy loan to the borrowers.

2.2 Empirical Review

According to Tanti (2018), there is a significant negative relationship between non-performing loan and profitability of 15 selected commercial banks of Indonesia from 2015-2016 where it was found that significance value of research is 0.000 which is less than 0.005 which means the hypothesis was accepted.

According to Yeltulme, Kwesi, Agyeman, & Adu-Asare (2016), the non-performing loan and Universal Banks profitability. It was found according to results that Universal Bank profitability is inversely related with the non-performing loan on the basis of data collection quarterly from 2000 to 2014 where it was also recommended that universal banks should have to revise their credit policy to decrease the non-performing loan ratio.

According to Azeem & Amara (2013), the non-performing loan has a negative relationship with the profitability of banks. Data of 6 years was collected of 16 banks of Pakistan from 2006 to 2012. The result of the study found that non-performing loan affected the entire three models in their analysis.

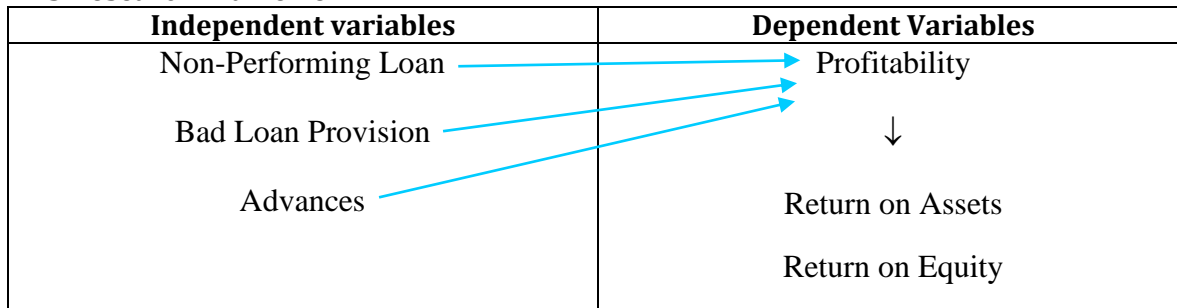
According to Mohammed (2012), NPLs have a direct relationship with the profitability of banks. In the study, nine Nigerian banks were selected and data was collected for a period of 10 years from 2001 to 2010. With the help of a generalized least square method for

analysis of the results where he found that non-performing loan have a significant negative with profitability, whereas money deposit has an insignificant negative impact on the profitability of the banks Which means for the long life of banks it is very necessary to manage the asset quality system in a better way.

According to Macharia (2012), there is no relationship between non-performing loan and return on assets mean profitability of commercial banks of Kenya. He had studied this relationship the help of a simple regression model where the non-performing loan was the independent variable, and return on assets was the dependent variable. The finding of the study has analyzed that there is no positive or negative relationship between non-performing loan and return on assets. According to this study, a heavy amount of profit not affected by the non-performing loan while some other variables that have direct impact on the profitability of banks of Kenya.

According to Kithinji (2011), there is no relationship between the non-performing loan and profitability of commercial banks of Nairobi Kenya from 2004 to 2008. In his research findings, non-performing loan was the independent variable while Return on Assets (ROA) was the dependent variable. His analysis got 95% confidence interval through regression equation. Furthermore, his findings describe that heavy amount of profit of banks in Kenya is not affected by non-performing loan, leaving other factors which can cause profitability of banks.

2.3 Research Framework



2.3.1 Independent Variable

Non-performing loan

It the amount of the bank which they did not able to recover from their borrowers and this heavily affect the profitability of banks as a whole.

Non-performing Loan = Total amount of loans / Total amount of bad loans

Advances

This is the short-term facility provided by the banks to the organizations as they recover the required money for short period of time which is usually less than one year. The interest which is charged by banks is very small or negligible for earning profit for banks (Surbhi. S 2015).

Bad loan provision

It is the amount which bank shows as an expense in their financial statements when they realize that the loan is no more to recoverable from their borrower. This directly affects the profitability of the banks and this is the indirect expense which is not in their control, but they can take steps to decrease as much as possible by ensuring that a borrower who is borrowing money have less risk of not paying back the loan to them.

Dependent variables**Return on assets**

It is the amount that a bank earns on its total assets. This is highly affected by non-performing loan which means that the bank was not able to recover the money from borrowers.

Return on Assets = Net Income after paying tax / total Amount of Assets

Return on equity

It is the amount, which banks earn on its every share, which they issued for their shareholder. When a bank was not able to recover its loan so it will affect their net income that ultimately affects their return on equity. Return on Equity = Net Income /the total number of shares

2.4 Research Hypothesis

H1= There is a significant impact of the non-performing loan on the profitability of HBL and NBP

3.1 Methodology

This study comparatively analyze the profitability and ratio of the non-performing loans and its effect on the profitability. This study used explanatory research approach. This study find out the comparative results of both HBL and NBP banks of Pakistan where these both banks have an issue of the non-performing loan ratio as we already discussed in our research problem.

3.2 Research Design

In this study, cause and effect research design is used where it is tried to find out the cause and effects of the non-performing loan on the profitability of banks of Pakistan.

3.3 Data Collection

Secondary data of both banks such as HBL and NBP was collected from their official financial statements of the last 10 years from 2018-2018.

3.4 Statistical Technique

By using SPSS, multiple regression was run to find out the impact of independent variables on dependent variables.

4 Results and Findings

4.1 The Impact of NPL, Provision, and Advances on ROE of HBL

Table 4.1

Model Summary									
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.837 ^a	.700	.550	3.38098%	.700	4.672	3	6	.052

a. Predictors: (Constant), PROVISION, ADVANCES, NPL

In the above table R is the multiple correlations, which tell about the multiple correlations between the independent and dependent variable. The value of R is 83.7%. It means that there is 83.7% correlation between (NPL, Provision, and Advances) and ROE. This shows that there is a strong moderate relationship between the variables. R^2 is the coefficient of determination, which tells us the variance in the dependent variable by the independent variable. In our table, R^2 is 0.70. It means that there is 70% variation in ROE which is explained by NPL, provision, and advances. This determines that overall model is fit at some extent.

Table 4.2

ANOVA						
	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	160.207	3	53.402	4.672	.052 ^b
	Residual	68.586	6	11.431		
	Total	228.793	9			

a. Dependent Variable: ROE

b. Predictors: (Constant), PROVISION, ADVANCES, NPL

The sig. Value of the ANOVA table is 0.052, which is near to less than 0.05, indicating that the overall model is significant. It means that NPL, provision, and advances impacting ROE of HBL

Table 4.3

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	44.947	12.614		3.563	.012
	NPL	-8.221	.000	-2.517	-1.321	.235

ADVANCES	-6.496	.000	-1.809	-3.453	.014
PROVISION	1.175	.000	3.859	1.750	.131
a. Dependent Variable: ROE					

$$ROE = \alpha + \beta_1 CR + \beta_2 QR + \beta_3 DR + \beta_4 DTE + \varepsilon$$

$$ROE = 44.94 - 8.22 * NPL - 6.49 * Advances + 1.175 * Provision$$

From the above regression, the equation shows that if all independent variables become constant zero then return on Equity will be at 44.94. From the result of the above table which shows that the sig. Value of NPL is 0.235 which is greater than the significant level 0.05 (**0.235 > 0.05**). It means that there is an insignificant relationship between NPL and returns on Equity HBL. Therefore, NPL has no significant impact on financial performance (return on Equity). This can be because of HBL is investing more in govt. Bonds or securities as compared to issuing the loan to its lenders. So, therefore, they are getting confirm return from their investment in govt. Securities which is one of the reasons that there is no significant impact of NPL on Return on Equity of HBL. As the ratio of investment to total assets is increasing every year as compare advances to total assets.

In the above table, the sig. value of advances is 0.014 which is less than 0.05 ($0.014 < 0.05$). It means that there is a significant impact of advances in Return on Equity of HBL. Therefore, advances have a significant impact on financial performance (Return on Equity).

From the above table sig. Value of provision is 0.131 which is greater than 0.05 (sig $0.131 > 0.05$). It means there is no significant impact of the provision on Return on Equity of HBL. As we discuss that HBL is investing more in Govt bond and securities so there is no advantage of keeping provision against your loan because of govt. Bonds or securities have fixed or confirm return that's why provision has no significant impact on Return on Equity.

The Impact of NPL, Provision, and Advances on ROA of HBL

Table 4.4

Model Summary									
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.890 ^a	.793	.689	0.25221%	.793	7.660	3	6	.018
a. Predictors: (Constant), PROVISION, ADVANCES, NPL									

The value of R is 89%. It means that there is an 89% correlation between (NPL, Provision, and Advances) and ROA. This shows that there is a strong moderate relationship between the variables. In our table, R^2 is 0.793. It means that there is 79.3% variation in ROA which is explained by NPL, provision, and advances. This shows that our overall model to some extent is good.

Table 4.5

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.462	3	.487	7.660	.018 ^b
	Residual	.382	6	.064		
	Total	1.843	9			

a. Dependent Variable: ROA

b. Predictors: (Constant), PROVISION, ADVANCES, NPL

The sig. value of the ANOVA table is 0.018, which is near to less than 0.05 (sig 0.018<0.05) indicating that the overall model is significant. It means that NPL, provision, and advances affecting the ROA of HBL.

Table 4.6

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.
		B	Std. Error			
1	(Constant)	3.878	.941		4.121	.006
	NPL	-5.518	.000	-1.882	-1.188	.280
	ADVANCES	-5.504	.000	-1.708	-3.922	.008
	PROVISION	7.912E-8	.000	2.895	1.580	.165

a. Dependent Variable: ROA

$$ROA = \alpha + \beta_1 CR + \beta_2 QR + \beta_3 DR + \beta_4 DTE + \varepsilon$$

$$ROA = 3.87 - 5.51 * NPL - 5.5 * Advances + 7.91 * Provision$$

From the above regression, the equation shows that if all independent variables become constant zero then return on assets will be at 3.87. In the above table, the sig. Value of NPL is 0.28 which is greater than 0.05 (sig 0.28>0.05). It means that there is no significant impact of NPL on Return on Assets. This can be because of HBL is investing more in govt. Bonds or securities as compared to issuing the loan to its lenders. So, therefore, they are getting a return from their investment in govt. Securities which is one of the reasons that there is no significant impact of NPL on Return on Equity of HBL. As the ratio of investment to total assets is increasing every year as compare advances to total assets. In the above table, the sig. Value of advances is 0.008 which is less than 0.05 (sig 0.008<0.05). It means there is a significant impact of advances on Return of Assets. From the above table, sig. Value of provision is 0.165 which is greater than 0.05 (sig 0.165>0.05). It means there is no significant impact of the provision on Return on Assets of HBL. As we discuss that HBL is investing more in govt. Bonds and securities so there is no advantage of keeping provision

against your loan because of govt. Bonds or securities have fixed or confirm return that's why provision has no significant impact on Return on Assets.

The Performance Ratio of HBL

Table 4.7

	2013	2014	2015	2016	2017
Advances to Total Assets Ratio	32%	31%	28%	29%	31%
Investment to Total Assets Ratio	48%	49%	57%	53%	51%

Impact of NPL, Provision, and Advances on ROE of NBP

Table 4.8

Model Summary									
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.774 ^a	.599	.398	3.21930%	.599	2.983	3	6	.118
a. Predictors: (Constant), PROVISION, ADVANCES, NPL									

The value of R is 77.4%. It means that there is 77.4% correlation between (NPL, Provision, and Advances) and ROE. This shows that there is a strong moderate relationship between the variables. In above table, R² is 0.599. It means that there is 59.9% variation in ROE which is explained by NPL, provision, and advances. This shows that our overall model to some extent is good.

Table 4.9

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	92.761	3	30.920	2.983	.118 ^b
	Residual	62.183	6	10.364		
	Total	154.945	9			
a. Dependent Variable: ROE						
b. Predictors: (Constant), PROVISION, ADVANCES, NPL						

The sig. Value of the ANOVA table is 0.118, which is greater than 0.05 (sig 0.118>0.05) indicating that the overall model is insignificant. It means that NPL, provision, and advances are not affecting ROE of NBP.

Table 4.10

Model		Coefficients				
		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	35.685	8.486		4.205	.006
	NPL	-4.828	.000	-2.882	-2.852	.029
	ADVANCES	-2.054	.000	-.511	-1.026	.344
	PROVISION	4.779	.000	3.115	2.769	.032

a. Dependent Variable: ROE

$$ROE = \alpha + \beta_1 CR + \beta_2 QR + \beta_3 DR + \beta_4 DTE + \varepsilon$$

$$ROE = 35.68 - 4.82 * NPL - 2.05 * Advances + 4.799 * Provision$$

From the above regression equation, shows that if all independent variables become constant 0. Then return on equity will be at 35.68. In the above table, sig. Value of NPL is 0.029 which is less than 0.05 (sig 0.029 < 0.05). It means that NPL has a significant impact on ROE. This is because of NBP is giving more loan as compared to investing in govt. Securities which ultimately increase the NPL. As the NBP, have more advances to asset ratio than the investment to asset ratio. However, in the recent 3 years, they also have invested in government bonds and securities.

In above table, the sig. Value of advances is 0.344 which is greater than 0.05 (sig 0.344 > 0.05). It means there is no significant impact of advances on ROE of NBP.

The sig. Value of provision is 0.032 which is less than 0.05 (sig 0.032 < 0.05). It means it is significant of the provision on ROE of NBP. This is because of NBP is giving more loan as compared to investing in govt. Securities which mean they have to keep more provision for their NPL. As the NBP, have more advances to asset ratio than an investment-asset ratio. However, in the recent 3 years, they also have invested in government bonds and securities.

The Impact of NPL, provision, and advances on ROA of NBP

Table 4.11

Model Summary									
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.869 ^a	.756	.633	0.27559%	.756	6.184	3	6	.029

a. Predictors: (Constant), PROVISION, ADVANCES, NPL

The value of R is 86.4%. It means that there is 86.4% correlation between (NPL, Provision, and Advances) and ROA. This shows that there is a strong moderate relationship between the variables. In our table, R^2 is 0.756. It means that there is a 75.6% variation in ROA which is explained by NPL, provision, and advances. This shows that our overall model to some extent is good.

Table 4.12

ANOVA						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	1.409	3	.470	6.184	.029 ^b
	Residual	.456	6	.076		
	Total	1.865	9			
a. Dependent Variable: ROA						
b. Predictors: (Constant), PROVISION, ADVANCES, NPL						

The sig. Value of the ANOVA table is 0.029, which is less than 0.05 (sig 0.029<0.05) indicating that the overall model is significant. It means that NPL, provision, and advances are not affecting the ROA of NBP.

Table 4.13

Coefficients						
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	3.846	.726		5.294	.002
	NPL	-2.95	.000	-1.610	-2.042	.087
	ADVANCES	-2.535	.000	-.575	-1.479	.190
	PROVISION	2.236	.000	1.329	1.514	.181
a. Dependent Variable: ROA						

$$ROA = \alpha + \beta_1 CR + \beta_2 QR + \beta_3 DR + \beta_4 DTE + \varepsilon$$

$$ROA = 3.84 - 2.95 * NPL - 2.53 * Advances + 2.23 * Provision$$

From the above regression equation, shows that if all independent variables become constant 0. Then return on equity will be at 3.84. In the above table, all three variables have an insignificant impact on ROA of NBP.

The performance ratio of NBP**Table 4.14**

	2013	2014	2015	2016	2017
Advances to Total Assets Ratio	45%	40	33%	33%	31%
Investment to Total Assets Ratio	28%	36%	48%	45%	54%

4.2 Hypothesis Assessment Summary

H1= There is the significance impact of NPL on the profitability of banks. In this study, hypothesis is accepted because in both the banks NPL is negatively affecting the profitability.

4.3 Comparison**Table 4.15**

	HBL		NBP	
	ROE	ROA	ROE	ROA
NPL	-2.517	-1.882	-2.882	-1.610
Advances	-1.809	-1.708	-.511	-.575
Provision	3.859	2.895	3.115	1.329

In above table, it is discussed the comparison between the two selected banks HBL and NBP. Where in first HBL is performing well in NPL with ROE because if one unit increases in NPL than there is 2.51 units decrease in ROE of HBL, while in case of NBP 1 unit increase in NPL there is 2.88 units decrease in ROE.

In the case of provision, HBL is good because a 1unit increase in provision, there is a 3.86 unit's increase in ROE while NBP has 3.115 units increase in ROE when there is one unit increase in provision.

While comparing in terms of ROA with independent variables, NBP is good in NPL and advances because one unit increase in NPL there will be 1.61 decreases in ROA of NBP, whereas one unit increase in NPL there will be 1.88 decreases in ROA of HBL. In addition, the same in the case of advances one unit increase in advances NBP have 0.575 decreases in ROA and HBL have 1.71 decreases in ROA of HBL.

However, in terms of provision HBL have an upper hand because one unit increase in provision, there will be a 2.89-unit increase in ROA. Whereas NBP has only 1.32 units increase in ROA.

5.1 Conclusion

This study examined the impact of the non-performing loan on the profitability of two banks of Pakistan HBL and NBP. For the analysis of research, 10 years of secondary data of both banks are used. Multiple regression analysis techniques is used for the result and after the analysis, it is concluded that both have a negative relationship with NPL and advances

where provision has a positive relationship with the profitability of banks. In the result, it is also find out that the bank has less risk with investment in Govt bonds while they have high risk in advancing the loan to its other clients. As the above results, banks should invest Govt bonds and securities because they have a fixed and confirm return while in advances there are the chances of not getting back the loan, which they issued to their clients.

5.2 Limitations and Future Directions

This study also have some limitations. This study is based on 10 years of data of two selected banks with limited variables to determine the profitability of banks so there are chances for the future researcher to include other variables like net interest margin (NIM), bank size and many more like these.

5.3 Recommendations

After analyzing the results, it has been found that there is a significant impact of NPL on the profitability of banks. In this study, it has been concluded that banks should have to decrease their NPL ratio by proper utilization and forecasting of the mortgage asset so that they can recover the amount of loan by selling that mortgage asset that enables the borrower to pay back the loan within the stipulated time given to them. Because, banking system is the backbone of country's economy. When banks are not able to recover their loan from their borrower then it goes in bankruptcy. Based on the above data analysis, it is argued that both the banks should have to improve the NPL ratio for their betterment as for the economy as a whole. It is recommended that banks should ensure that loans that are given to the borrower should be risk free as much as possible by backing the loan through proper forecasting of the assets which they keep as a mortgage. Banks should have to realize that these factors are very important to control because without controlling them it is not possible for banks to get the desired results for their shareholders. The Government should also play its role for motive of banks to increase their performance for the betterment of a nation, society, and economy of the country where they will operate and earn profits.

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