Reasons and Effects of Non Performing Loans in the Banking Industry of Pakistan

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Abstract

This article is supervised by Miss Kiran Azeem. This study shows that Non- performing loans (NPL) is an important problem for the whole banking industry and also a big hurdle in its development. According to our consideration there are many factors which are responsible for increasing NPL such as GDP, Credit appraisal, Interest rate, Improper lending disbursement to agriculture sector. This study investigates the causes & effects that occur due to NPL & how to overcome all these problems of NPL to maintain the credit stability. During this study, time series data were followed over the period of 2000 to 2016. The result shows no significant relation of GDP, Interest rate and improper lending disbursement to agriculture sector with NPL however there is a significant association of Credit appraisal with NPL. Therefore we recommend that banks should control their credit advancement policies. Also we would like to recommend that State bank of Pakistan (SBP) should give information about fraudulent to every bank so that they can't take money to other banks for this act NPL has the chances to decrease.

Keywords: Non-performing loans, GDP, Interest rate, Credit appraisal, improper lending disbursement to agriculture sector.

1. Objective

This research aims to investigate the main sources of Non performing loans, its impacts on Pakistan economy & also its appropriate solution as to maintain the credit stability, it is essential to control the problem of NPL so that banks can go forward with credit growth expansions strategies.

2. Introduction

Banks earn generous profit from the interest of loans and then they provide loans to firms and people. As a result of declining liquidity and bad condition of macroeconomics, most of the firms and people are unable to pay and defaulting the loans. Default loans are also known as Non-performing loans (NPL), because the given loans no longer "performs". If interest on principle amount past due by 90 days, the advances measured as NPL. We all know that loans performance is totally related to the business cycle. Rise in NPL is a warning indicator for any banking industry of the world to prevent the banking crisis.

  In the case of Pakistan's banking sector, State Bank of Pakistan (SBP) shows that NPL ratio is increasing rapidly from 2005-2010. The NPLs ratio in 2005 was 6.7%, in 2010 14.3% and in 2016 NPL increased by 25 billion during January to September. The increase in NPL affected the dividend payments, increased interest rate, and caused low investments resulting due to low GDP.

  "Pakistan banking sector is facing many problems due to NPL, which are also affecting the economy

"(Masood, 2009). Bank's income falls due to increase in NPL because debtors have low repaying capacity which results as high interest rate and non-economic use of loans. SBP indicates that the capacity of NPL is increasing each year, in 2012, NPL increased by 608.748 billion from Rs.176.77billion. To decrease the NPL ratio, it is important to analyze the root causes of bad loans.

The main causes of NPL are high-interest rate, Low GDP, Poor credit appraisal, Inflation, unemployment and improper lending disbursement to agriculture sector. NPL have negative impact on the economy and financial institutions. "The total economy causes & effects bankruptcy in banking sectors due to increase in NPL" (Hou, 2007)."

In the literature of this study reveals that how bankers can overcome all these negative impacts and causes find the solution to go forward with credit growth expansion plans. Determinants of NPLs is discuss in Theoretical framework which indicates four independent variables (GDP, Interest rate, Credit appraisal, Improper lending disbursement to agriculture sector) which have significant relationship with NPL.

3. Literature review

Mr. Munib Badar and Ms. Atiya Javaid said that GDP represent the country's growth. There is an inverse relation between NPL and GDP. If we follow expenditure approach then GDP can be measured through all consumption of private & public investment. Low GDP means lack of investment, decline in production, less export, unemployment and inflation increases.

Munib Badar & Atiya Yasmin Javid said, interest rate is a service charge by a lender to the person who borrow credit for the purpose of using an asset. It sets by the state bank according to the fluctuations in the inflationary rate. Analyst said that they use six month Treasury bill rates in the replacement of interest rate as commercial banks usually use for the settlement of loan prices. They also argue that interest rate is directly related to non-performing loan, means Non-performing loans increases as interest rate increases.

Salman Qadir argues that NPL are increasing in all fields but mostly in the agriculture sector. In 2010 due to heavy flood, the condition of macroeconomic affected badly which resulted as food shortage and increase in inflation, which can also be harmful for the government as well as central bank moves to convince banks for participation to recover from the agriculture sector.

Salman Qadir argues that in the light of present situation which shows the continuous increment in NPL, the banks are facing the problem of recession due to the lower repayment of loans and declining yield on lending. To overcome this situation, the banks should follow the effective and appropriate procedure to monitor credit financing activities and should adopt advanced policies to examine the credit worthiness of the applicant at the time of approving loans.

Moh Benny and Teguhlman argues that GDP is considered to be the most effective and main indicator to examine the economic development in a country. An inverse & significant relationship is found between the GDP and NPL. It means that if the GDP will increase then NPL will decrease. Whenever a country starts developing economically, which can be examined through the increment in GDP growth rate, then as a result it also increases the capability of the borrower's to repay their loans to the banks. On the other hand, when a country's development comes in a declining position economically then it automatically decreases the debtor's ability to pay off their liabilities.

Abdul Ghafoor Awan, Nasir Nadeem and Falak Sher Malghani said, French bank research find all significant determinants of agriculture loans defaults which is long time of loans, liquidity, profitability. This study sorts the elements of loans default of agriculture sector in district Kasur of Punjab Province. It indicates that high interest rate, credit timing, and miss-utilization of agriculture loans are the major reasons of delay in payment.

Roland Beck, Petr Jakubik and Anamaria Piloiu said (February 2013) in the report of interest rates, Non-performing loans increases due to the increase in debt services. In countries, where the infrastructure is targeted by the inflation, increase in interest rate to some extent increase in non-performing loans. Loan borrowing adversely affects due to high interest rate, that's why it also rendered as realizable element. Therefore, lending rates are somewhat effected by the policy rate set by the state bank, we also use swift monetary policy to control the fluctuation in exchange rate and inflation.

Atta-ul-Haq, Danish Ijaz, M. Akram and Javaid Iqbal argue that NPL becomes high because of lack plans to deal with risk, unwillingness of borrowers, exhausted loans services and risk increase due to the high loans size. In 1980, ineffective policies for loans recovery in Italy market were one of major reason of NPL. The relationship badly affected the credit control policies, as the banks were not following the proper investigation process before the sanction of loans.

4. Scope of the study

This research focuses on the effects of loan defaults in the banking sector of Pakistan. Factors that dangerously affect the Non-performing loans are deeply discussed in this report, which are macroeconomic indicators and the

poor credit appraisal.
- Therefore, it will be helpful for those bankers who are supervising Non-performing loans cases, taking decisions who are likely to be lended or who are not, and computing credit risk.
- This study will be useful for the policy makers to test policies on NPL under highlighted elements.
- This report will also be useful for other researchers of Non-performing loans and general readers too.

5. Significance of the study

In 2001, NPL reached the highest peak at Rs.290 billion and in 2016, NPL increased by 25 billion during January to September.
- In banking industry prosperous economic scenario is one of the main reasons of profitability. When all macroeconomic indicators stand on a better position specifically, then interest rate and inflation also remains under control.
- On the other side, in order to control NPLs, bank's credit computation, security practices and supervision should be improved.
- Banks should not give loans against high risk security.
- Loans should be approved on the ground of ambitious skills, credit competency of the lender, as a substitute of adjusting debt to equity ratio.

6. Theoretical Framework

The dependent variable is Non-performing loans, which is the element of interest, in which the difference is tried to be described by the four independent variables of (1) GDP(Inflation, Exchange rate) (2) Interest rate (3) credit appraisal (lenders inappropriate plans, ineffective monitoring). (4) Improper lending disbursement to agricultural sector (Delay loan, flood, uncertain weather, complicated procedure).

Interest rate is the price charged, shows as a proportion of principal amount, by creditor to a person who borrows credit for the purpose of using asset. The schematic diagram shows that interest rate affects the NPL. Interest rate and NPL has a positive relationship. Thus, whenever SBP increases the interest rate, people purchasing power decreases due to inflation. Because of inflation public can't repay their allowances that are why NPL increases due to high interest rate. Thus higher the interest rate, higher the chances of NPL.

GDP represents the total market worth of all things produced and services rendered in any country for a specific period of time. NPL and GDP (Inflation, Exchange rate) has an inverse relationship. NPL increases as much as GDP goes down due to the shortage of investment, low production, inflation, and corruption. If production is less, so it minimizes our export, and increases the import of our country due to which inflation will increase, our value of currency will be down. High inflation and declined value of currency will result high exchange rate. Thus, all these factors cause of lowering GDP because of this NPL rises.

Agriculture sector is the backbone of our economy. There is a positive relation b/w the improper lending disbursement to agricultural sector (Delay loan, flood, uncertain weather, and complicated procedure) and NPL. Thus, higher the improper lending disbursement to agriculture, higher the chances of NPL. Basically farmers have low level of income so they find it difficult to pay off their loans against high interest rate that's why most of NPLs rises from agriculture loans.

The assessment of various risks that can impact on the return of credit is credit appraisal (lenders inappropriate plans, ineffective monitoring). It is determining *"will I get my money back?"* In Pakistan, there is a lacking of effective monitoring of loans and many other problems in the banking sector like the bank does not monitor the loans effectively, it is not capable to assess every kind of risk regarding the loan purpose, it normally fails to judge the capability of applicant actually to repay loans, the previous financial statement of at least five years are not analyzed properly in any business loan and the credit history of the applicant is not recognized and available to every bank, all these factors result as increase in non-performing loans.

Independent variable

Schematic Diagram
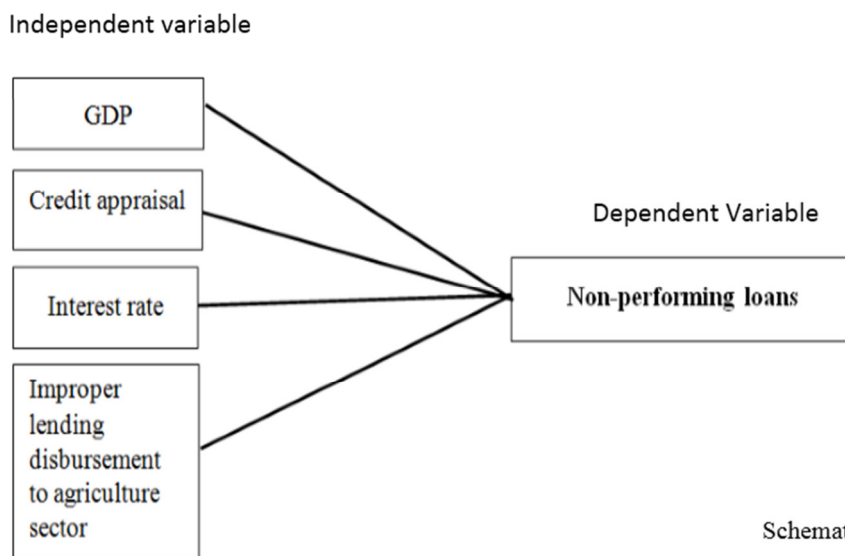
7. Methodology

This research focuses on the whole banking sector of Pakistan which are performing lending activities and handling NPL. We selected 15 banks as a sample among the whole population of Pakistani banking sector.

7.1 Hypotheses

H_1: There is a negative significant relationship b/w GDP and NPL.

H_2: There is a negative significant relationship b/w Credit appraisal and NPL.

H_3: There is a positive significant relationship b/w Interest rate and NPL.

H_4: There is a positive significant relationship b/w lending disbursement to agriculture sector and NPL

We collected secondary data from authentic websites, articles, researches and primary data through survey banks and filled up questionnaires. Regression and correlation analysis applied to check that *Is the NPL dependent on some banks variables and macroeconomic variables?* This analysis shows the relationship between dependent variable and independent variables.

The model of NPL is provided in equation as:

$NPL = a0 + \beta 1 GDP < \beta 2 CA < \beta 3 IR > \beta 4 LDA > \mu$

Where,

NPL = Nonperforming loans

GDP = Gross Domestic Product

CA = Credit appraisal

IR = Interest rate

AS = Improper lending disbursement to Agriculture Sector

μ = Random error

7.2 Interpretation

After applying regression, the result of GDP shows that Ho is accepted because sig value is greater than alpha ($0.453 > 0.05$) in table 2. The result of Credit appraisal shows that Ho is rejected because sig value is less than alpha ($0.002 < 0.05$) in table 5. The outcome of interest rate shows that Ho is accepted because sig value is larger than alpha ($0.204 > 0.05$) in table 8.The result of improper lending disbarment of agriculture sector shows that Ho is accepted because sig value is greater than alpha ($0.438 > 0.05$) in table 11.

Coefficient table represent the relationship between dependent and independent variable. Whereas beta shows negative value on GDP and credit appraisal (table 3 & 6) that means both independent variable has inverse relationship with NPL. Beta of Interest rate and improper lending disbursement to agriculture sector show positive value (table 9 & 12) that means both independent variables has positive relation with NPL.

8. Conclusion

NPL is harmful for the economy of the whole world so it is very important to analyze the root causes of loan defaults. As per our belief, if we analyze the root causes of non-performing loans then we can modify our strategies to control non-performing loans. Through the research, it has been concluded that null hypothesis of Credit appraisal has been rejected which shows that credit appraisal and non-performing loans has negative significant relationship in Pakistan. The null hypothesis of GDP, interest rate and improper lending disbursement

to agriculture has been accepted which shows that all these have no significant relationship with NPL. Through this study, we have discussed the causes & effects of NPL so the banks can get a clear idea from this research to control the non-performing loans.

9. Recommendations

1. Borrowers bear losses and could not return loans on time due to lack of business management knowledge, so banks should contribute business counseling services to them.
2. Centralized banking system should be followed in which the central bank should provide all the banks, the information of those borrowers who has poor credit history & has defaulted loans.
3. Mostly loans default due to borrower's concern of high interest rate so the state bank should charge low rate of interest to the borrowers.
4. The banks should hire specialized persons on merit basis to deal with credit risk efficiently.
5. The Banks should conduct training programs to enhance the credit knowledge of credit staff.

10. Limitations of the study

As we are the students so during this research, we faced many constraints like shortage of time, we had to arrange the finance by ourselves to complete this research in a good way and with real factors and data. To collect the primary data, we selected some famous banks to fill the questionnaires. Another constraint was that the bankers were not willing to disclose their bank's information for our research due to some security reasons so we had to make a lot of efforts to convince the bankers for providing actual information and tried to satisfy them, that this information we need mainly for academic purpose and it will not be misused by us.

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Table.1   Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.311[a]	.097	-.006	.74269

a. Predictors: (Constant), Energy_crises, Corruption, Elements of GDP cause NPL, Exchange_rate
b. Dependent Variable: Factors increasing NPL

Table.2   ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.069	4	.517	.938	.453[a]
	Residual	19.306	35	.552		
	Total	21.375	39			

a. Predictors: (Constant), Energy_crises, Corruption, Elements of GDP cause NPL, Exchange_rate
b. Dependent Variable: Factors increasing NPL

Table.3   Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	2.784	1.191		2.337	.025		
	Elements of GDP cause NPL	-.169	.115	-.262	-1.472	.150	.814	1.228
	Exchange_rate	-.101	.141	-.157	-.714	.480	.535	1.868
	Corruption	-.140	.109	-.246	-1.282	.208	.702	1.424
	Energy_crises	-.025	.133	-.040	-.187	.853	.575	1.738

a.   Dependent Variable: Factors increasing NPL

Table 4   Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.720[a]	.519	.394	.57616

a. Predictors: (Constant), Weak_system_of_banking, Increasing_loan_size, Ineffective_monitoring, Bankruptcy, Lenders_lack_plan, Lack_of_management, Delay_loan_approval, Borrower_fraudulent

b. Dependent Variable: Factors increasing NPL

Table 5   ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.084	8	1.386	4.174	.002[a]
	Residual	10.291	31	.332		
	Total	21.375	39			

a. Predictors: (Constant), Weak_system_of_banking, Increasing_loan_size, Ineffective_monitoring, Bankruptcy, Lenders_lack_plan, Lack_of_management, Delay_loan_approval, Borrower_fraudulent

Table 6   Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.747	.772		.968	.341		
	Lack_of_management	-.216	.152	-.224	-1.417	.166	.620	1.612
	Ineffective_monitoring	.012	.117	.013	.103	.919	.940	1.063
	Delay_loan_approval	.015	.116	.021	.132	.896	.620	1.614
	Lenders_lack_plan	-.113	.109	-.146	-1.038	.307	.782	1.279
	Bankruptcy	.242	.088	.370	2.760	.010	.866	1.155
	Borrower_fraudulent	.306	.130	.385	2.353	.025	.580	1.725
	Increasing_loan_size	-.210	.152	-.224	-1.380	.177	.590	1.694
	Weak_system_of_banking	.278	.153	.348	1.821	.078	.424	2.357

a. Dependent Variable: Factors increasing NPL

Table 7   Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.287[a]	.082	.033	.72808

a. Predictors: (Constant), Foreign_reserves, Exchange_rate2

b. Dependent Variable: Factors increasing NPL

Table 8   ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.761	2	.881	1.661	.204[a]
	Residual	19.614	37	.530		
	Total	21.375	39			

a. Predictors: (Constant), Foreign_reserves, Exchange_rate2

b. Dependent Variable: Factors increasing NPL

Table 9   Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.507	.712		.712	.481		
	Exchange_rate2	.237	.203	.217	1.166	.251	.718	1.394
	Foreign_reserves	.295	.163	.336	1.806	.079	.718	1.394

a.   Dependent Variable: Factors increasing NPL

Table 10   Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.275[a]	.076	-.030	.75139

a. Predictors: (Constant), High_interest_rate, NPL from agriculture

sector, Uncertain_weather, Natural_disaster

b. Dependent Variable: Factors increasing NPL

Table 11   ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.614	4	.404	.715	.587[a]
	Residual	19.761	35	.565		
	Total	21.375	39			

a. Predictors: (Constant), High_interest_rate, NPL from agriculture sector, Uncertain_weather,

Natural_disaster

b. Dependent Variable: Factors increasing NPL

Table 12   Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.602	1.153		1.389	.174		
	NPL from agriculture sector	-.234	.474	-.084	-.493	.625	.906	1.103
	Natural_disaster	-.271	.262	-.185	-1.034	.308	.830	1.205
	Uncertain_weather	.414	.289	.237	1.436	.160	.972	1.029
	High_interest_rate	.090	.290	.053	.310	.758	.895	1.118

a. Dependent Variable: Factors increasing NPL