

Non-Performing Loans and Banks' Profitability: A Review of Banking Industry in Pakistan

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Abstract

This study is aimed to evaluate the current state of non-performing loans (NPLs) in the banking sector of Pakistan, its long term relationship with profitability and proposed policy initiatives in view of the same. This research work has been made for four key classes of banks including Government Owned banks, Private banks, Foreign banks and Islamic banks in Pakistan. Annual reports of selected banks have been analyzed to check the non-performing loans, provisions created against the same and profitability of banks during 12 years from 2008 to 2019. Period before the COVID 19 was taken into consideration in order to avoid the impact of this unusual situation for the purpose of analysis. Moreover, some primary data has also been collected through the interviews and opinions of related experts for the area under study. Ordinary Least-Squares (OLS) regression technique have been used, with the consideration of Fixed Effects (FE) assumption. Fixed effect model has been used due to time variant predictors and dependent variables. Findings of the study confirms significant relationship between provision created against NPLs and profitability whereas insignificant results have been found for non-performing loans and banks' profitability in Pakistan. Policy implications have been suggested based on these findings that if implemented correctly are more likely to produce strong positive impact on banking being a vital industry of Pakistan's economy.

Keywords: Non-performing loans, NPLs provision, Banking Sector, Profitability, Pakistan.

1. Introduction

Importance of sound financial system is unavoidable for the standing and growth of an economy. Banks are one of the building blocks of this financial system for which asset quality remains the principal component (Ishaq et al. 2016). However, non-performing loans have been observed to be on rise in 2019. This rise is reflecting deteriorating asset quality and need close examination of the same. Non-performing loans are the loans that have defaulted on their due payments. Defaults are the biggest credit risk in banks and often result in huge losses. This is because the advances are key assets of banks on which major proportion of revenues depend. Though, banks are required to keep provisions against these non-performing loans in order to handle future expected losses. However, increase in such loans and of course the enhanced provisions against the same result in the bulk of unutilized funds and reduction in net-assets in the banks' financial position.

In view of the importance of credit risk, rising overdue loans and requirement of provisions to be kept; this study has been designed to find effect of NPLs and provision against NPLs on profitability of banks in Pakistan. Earlier studies have been conducted in other parts of the world regarding the same concept. However, only the NPLs as independent variable and return on assets as the dependent variable were used therein. Hence, this study has made some value addition through the inclusion of provision against NPLs in independent variables and replacing return on assets with net profit margin as dependent variable.

This study has been structured with a view to find the actual predictor of returns in banks so that necessary policies can be devised and implemented. Section-1 describes the introduction of this

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research study including research objectives and research questions. Section-2 encapsulates the review of literature related to the study subsequently identifying the research gap. Section-3 describes methodology including theoretical framework, research hypothesis including operational definitions of variables, data sources, methods of data collection, methods of data analysis and research limitations followed by Section-4 portraying results and discussion over the same. Section-5 has concluded the study and Section-6 mentions policy implication based on the same.

1.1 Objective of Research

The core objective of this study is to have a closer look on the most important determinant of profitability in banks. These are bank loans that if not monitored and controlled appropriately result in deteriorating profitability and long-term negative effects on the reputation with respect to credit management. Hence, this work has been conducted to check the current position and trend of advances, ratio of non-performing loans to gross advances, provision kept against the same and their relationship with banks' profitability in Pakistan so as to identify the deviations and requirement of enhanced controls in order to strengthen the banking sector as the same is sharing vital part in the overall growth of Pakistan's economy.

1.2 Research Gap

The literature for the studies those have been conducted in diverse parts of the world conclude that credit risk is the major risk faced by the banking sector in economy. The key determinant of credit risk has been discovered to be the non-performing loans (NPLs). Furthermore, various factors are held responsible for the creation and enhancement in the magnitude of these NPLs including but not limited to the interest rates, lending procedures, phase in the economic cycle of respective country including the macro-economic indicators, political and legal conditions etc. These studies have been conducted on either the determinants of credit risk, determinants of non-performing loans, or the relationship between NPLs and profitability of banking organization. However, an extensive review of literature to the best of my knowledge indicates that no specific study could be found for the relationship between NPLs and profitability in the banks of Pakistan. Neither a single study tried to depict relationship of provision against these NPLs and profitability. They have taken either ROA or ROE as a proxy for profitability whereas net profit margin is also one of the important measure of profitability that has not been considered in any of the above studies. All of the above studies portrayed the negative relationship between NPLs and profitability in banks except one by Agyei et, al. (2012) that produced the contrary results thus providing the clue for testing this relationship in other parts of the world too. Hence, encapsulating the results of earlier researches, this study tries to fill the observed gap in literature that has been hypothesized in the section 3.2 below. However, proxies for independent variables and the application of the statistical techniques have been replicated from these studies. Hence, appended below is the novelty in current research.

First novelty in the study is the use of Provision against NPLs besides Non Performing Loans as independent variable. This is because provision, if not sufficiently created, will cause bankruptcy in the long run when these non-performing loans need to be written-off.

Second novelty in the study is the use of Net profit Margin in place of ROA or ROE as dependent variable. ROA indicates the ratio of profitability to the assets in bank i.e. loans and ROE indicates the ratio of profitability to the equity financing therein. Nevertheless, the revenues are not only the outcome of interest bearing activities rather some of non-interest bearing activities for example commission on bank guarantees, commission on letter of credits, credit initiation fee etc. Therefore, the same are taken into consideration under this study while opting for the measure of return/profitability i.e. net profit margin [ratio of net profit to total revenues (interest revenue + non-interest revenue)].

1.3 Research Questions

1. Whether, the portfolio of NPLs is increasing in banks of Pakistan?
2. What is the relationship in between non-performing loans and profitability of banking sector in Pakistan?
3. What is the relationship in between the provision that is created against non-performing loans and profitability of banking sector in Pakistan?

1.4 Research Limitations

This study is limited to the sample of six banks rather than whole population of the same in Pakistan. Likewise, from all related primary data sources, only two bank executives and one audit firm have been approached through interviews in order to complete task within available time for paper presentation.

2. Review of Related Literature

Credit Expansions more than the specified parameters may result in massive economic slump. This veracity has been observed when such credits resulted in enormous economic depression in 2007-08 throughout the world. Credit bursts are associated with the prevailing cycle in economy, variations in the firm-level indicators and the bank-level indicators for example surpassing volume of the non-performing loans (Ejaz and Hanif, 2018).

The loans that stop generating income are generally termed as non-performing loans. Non-performing loans are considered to be the sign of asset quality of a bank as well as the decision making ability of its management. There may be multiple causes of worsening in loan quality. However, the major problems lie in the managerial decision making with respect to credit risk. These decisions mainly pertain to three classes of credit management policies. The first class includes the policies related to loan concentration, diversification and related party advancing. Second class is for the classification of outstanding overdue loans as per regulatory authorities and third is for the sufficient provisioning of anticipated losses in case of non-payments. Profitability is the indicator of running businesses in any sector and the major source of banks' profitability is the interest revenue. Hence, decisions related to advancing credits are of prime concern for banks. Since 1990s, many banks in Nijeria faced huge reductions in profitability and some also collapsed due to the same. This decline in profit was mainly because of extensive volume of non-performing loans as a result of weak regulatory reforms. (Ugoani, 2016).

Etale, Ayunku and Etale (2016) studied the performance of bank as a function of NPLs. Influence of non-performing loans has been observed on performance of banks in Nigeria from 1994-2014, using the return on capital employed (ROCE) as representation for the bank performance (dependent variable) and sub-standard loans (SUL), doubtful loans (DOL), and the bad loans (BAL) as a measure for non-performing loans (independent variables). This study has been executed through the application of single regression model. Stationary tests applied using Augmented Ducky-Fuller (ADF). The results of multiple regression demonstrate that doubtful loans and bad loans ensured statistically significant negative influence on return on capital employed (ROCE), whereas the substandard loans found to have statistically insignificant negative influence on the return on capital employed. The empirical evidences demonstrate that non-performing loans had negative influence on the performance of banks in Nigeria. The overall inference of the results obtained is that any upsurge in the volume of nonperforming loans would cause reduction in profitability of banks in Nigeria over longer run.

Largely, the banks in Vietnam predominantly the banks under government sector found to have enormously high bad loans according to a thesis executed by a student in Lahti University of Applied Sciences, which caused the deteriorating trust of customers, raised up concern over the competencies

of banking industry and slowed down the growth of the economy as a whole. This is due to the credit risk which is the prime risk of banking sector and the key reason of the progress of Vietnam has been the progression in this industry. (Thong, 2013).

Evaluating performance of banks has been a complexed task due to the inherent problems of non-performing loans that cannot be appropriately achieved through the conventional Data Envelopment Analysis (DEA) models. Therefore, DEA models using epsilon-based measures (EBM) of efficiency have been applied for a simultaneous contemplation of radial and nonradial inputs/ outputs. Loan quality is considered to be the most influencing factor in evaluating operational risks in banks. Banks operating under financial controls proved to perform better than those without these controls. (Liu, Wu, Lin, and Lum, 2017).

Nonperforming loans are one of the key determinants of profitability in banks because higher volumes of NPLs effect profit due to the loss provisioning and write-offs. It actually occurs because of the informational asymmetry between lender and borrower as well as due to the bad management of resources. A study on the banking sector in Tanzania used multiple regression, OLS regression and descriptive statistics to empirically test the causal relationship in between nonperforming loans and the profitability of banks. Results of the study depict the reduction in return on assets as a measure of profitability with the increase in nonperforming loans. Considering the same, respective bank officials at one end, should have a serious focus over scrutinizing the prospective borrowers in order to avoid information asymmetries. While on the other hand, the role of controlling authorities to formulate the appropriate regulations and ensuring their implementation is also inevitable. (Kingu, Macha, and Gwahula, 2018).

Findings of the study by Baasi (2018) for banking sector in Ghana are in accordance with the findings of Kingu. et, al. (2018). They further argue that a number of factors affect the non-performing loans including interest rates, share prices etc. Hence, most of the management time and resources use to be engaged in evaluating the quality of loans and their continuous management. This is because these loans let the banks into financial distress and ultimately affect the overall economic progress. Psaila et, al. (2019) also replicated the study of Kingu et, al. (2018) for the listed commercial banks in Euro-Mediterranean. Results of the study conform to the findings by Kingu et, al. (2018) in that the significant negative relationship has been found in ROA and NPLs. However, with respect to two control variables considered in this study, liquidity has not been found to be suitable control variable for listed commercial banks in Euro-Mediterranean region as it has been observed to be statistically insignificant all over regression models that have been performed. Hence, the suitable control variable was supposed to be the solvency ratio.

John (2018) studied the effects of NPLs on the performance of some selected banks in Nigeria. Various measures may be used to evaluate performance including return on equity (ROE), return on assets (ROA), the cost to income ratio and the net interest margin (NIM). Nevertheless, both bank specific and macroeconomic variables were tried to be evaluated by the researcher. Bank specific variables include return on assets (ROA) whereas GDP, exchange rate and unemployment rate are the macroeconomic variables considered under the study. Two components of the bad loans as per the researcher are stock component and flow component. The term of stock component refers to the debt that is non-performing whereas the loans that are expected to become non-performing are termed as flow component. Enhancement of bad loans may result in the liquidation of banking organization if due debts are not paid in time or even not get paid at all due to the worsening repayment ability or the willingness of the borrower. This is because of the loss for which the existing equity capital will become insufficient to recover. Moreover, it will also cause decline in revenues because new loans will be difficult to get disbursed without recovery of the previous ones and will ultimately result in customers' dissatisfaction because of the inability of banks to provide requested services to their regular customers. Nevertheless, some contradictions have been found in this study as the author mentions the main objective in methodology to evaluate the determinants on NPLs and in such a way the NPLs are the dependent variable. Whereas, the hypothesis is for the influence of NPLs on the

performance of banks and thus account for NPLs as in independent/ explanatory variable. This aspect is also included in the final conclusions explaining that there is significant negative relationship in between non-performing loans and the performance of banking sector in Nigeria and both bank-level and macroeconomic factors are important under this relationship. Furthermore, the availability of the trained human resources for the credit analysis and the support from the government in order to handle these NPLs has been considered to be the vigorous requirements.

Interest rate is the price of loan granted and is considered to be a vital determinant of non-performing loans (NPLs). NPLs rise with the rise of interest rates that let the borrowers' repayment ability to decline due to which they get unable to perform the due obligations. Results of the study conducted by Azeem et, al. (2017) reveal that the credit appraisals and nonperforming loans have significant negative relationship here in Pakistan whereas GDP, interest rate and improper lending disbursement have no significant relationship with NPLs. Non-performing loans arise due to several factors those are vital to be studied. Patwary and Tasneem (2019) elaborate that these causes include corruption, lack of monitoring, borrower selection, political influences, lengthy recovery procedures, repetitive rescheduling, time frame of loan monitoring and disbursements, lack of proper documentation and non-applicability of regulations. Consequently, these NPLs reduce the lending capacity of banks, decline in interest revenues, and increasing interest rates for lending, deteriorating overall growth of the economy, decline in the reinvestment of funds, credit crunch due to liquidity shortages, bad effects over performing loans due to restrictive lending provisions, increasing costs, declining CAR and unemployment etc.

Profit maximization has been the primary objective of banks. This purpose is tried to be achieved through increased interest rates over loans and decreasing interest rates over deposits. Sometimes, they get so aggressive in lending to maximize revenues that result in moral risks, credit risks and the non-performing loans. Phung et, al. (2020) also based their research on information asymmetry theory along with the modern portfolio theory. Study has used the statistical techniques including descriptive statistics, correlation, regression (Fixed effects) and test for multicollinearity. Findings of the study uncover that whenever the rate of nonperforming loans rises, the bank's return on assets (ROA) will decline, lowering the overall profitability of banks. It further depicts that loans to deposit ratio and GDP have an impact on bank's performance i.e. measured through return on assets (ROA) in Vietnam whereas bank size does not follow this pattern.

Economic growth of any country is to a large extent depends upon the banks that are financial intermediaries for multiple sectors of economy. Same is the case with Jordan having handsome deposits and lending base. Nevertheless, records reflect the decline in the advancing capability of banks. This is the reason that Al-Eitan et, al. (2019) studied the factors related to credit risk that may affect the performance of banking sector in a developing country like Jordan. The results indicate that the credit risk components including doubtful loans, nonperforming loans and loan losses are negatively related to profitability of Jordanian commercial banks.

Rise in problem loans is a global distress that is affecting the survival of banks all over the world. Zafar et, al. (2013) argue that volume of non-performing loans is too high in the banks of India that is resulting in substantial decline in profitability. Public sector banks have been affected the most by these NPLs followed by the banks under private sector in India. The glitch of NPLs if not controlled, affect the nation's industry and trade in the longer run.

Banks, like all other organizations come across with multiple risks including business risk, financial risks, political risks etc. However, the major risk faced by banks is the credit risks because loans are their key assets through which they earn. However, results of the study are quite surprising as they are contrary to a bulk of studies those showed the negative relationship in between credit risk and the profitability of banks. As per the findings, credit risk is positively related with the profitability in banks of Ghana. However, the probable reason of this relationship i.e. benefit of high default risks for banks in Ghana might be the interest rates, fees and commission i.e. charged over loans. Agyei et, al. (2012).

Various recent studies endorse the effects of Non-Performing Loans on Profitability in Banks. Çollakua and Aliub (2021) evaluated the influence of NPLs on the profitability of Banks in Kosovo through multivariable linear regression analysis and found statistically significant effects of NPLs on Banks' profitability. Santosh Kumar Das and Khushboo Uppal (2021) tested the influence of NPLs on profits of Indian Banks and found significant negative effects. The results of the study by Nur Rokhmat, Sri Zulaihati and Santi Susanti (2023) also confirm the significant relationship in between non-performing loans and profitability in commercial banks listed in Indonesia Stock Exchange during the period from 2015-2021. Adel A. Al-Sharkas and Tamara A. Al-Sharkas (2022) tested the impacts of various ratios on the return measures i.e. ROA and ROE. It has been observed that NPLs have inversely affected both the return measures in emerging economies. Even the study of Adel A. Al-Sharkas and Tamara A. Al-Sharkas (2022) evidences the effect of non-performing finances over return on assets of largest Sharia People's Financing Banks in West Java Province during COVID-19 period.

2.1 Theoretical Framework and Problem Statement

The study under consideration is based on Information asymmetry theory, agency theory and bad management hypothesis. Information asymmetry handles the study of decisions in transactions where one party has more or better information than the other party. This asymmetry creates a disparity of authority in transactions, which can sometimes cause the transactions to result in negative outcomes, that is a kind of market failure in the vilest case. Information asymmetries are studied in the perspective of principal-agent problems. Information asymmetry is in contrast to perfect information, which is a key assumption in neo-classical economics.

The agency theory is an idea that elucidates the relationship between principals and agents in a business. Agency theory is related to resolve problems which may exist in agency relationships because of unaligned goals or different risk aversion intensities. This study will determine how agency problems, if not handled appropriately may cause enhanced risks and declined profitability in the banking sector of Pakistan.

Bad Management Hypothesis has been first presented by Berger and De Young (1997). It indicates that in responding to the increase in non-performing loans (NPLs) resulting from adverse selection, bank management tends to inject more resources into handling and monitoring bad loans. This treatment in the long run results into the increase in the operating expenses more than increase in interest revenue thus causing higher cost-to-income ratio. Consequently, higher cost-to-income ratio is a signal of weak banks' management, in monitoring, underwriting and control of the loans portfolio. Taking the above theories into consideration for testing the impact of NPLs and their provision as a result of improper application of referred theories is proposed to be dealt in this study.

3. Research Methodology

This study is a type of empirical study where quantitative methods have been applied as well as the survey interviews used. This study has tried to replicate the study of Kingu et. al. (2015) that was conducted for Tanzania. In this study, the impact of non-performing loans has been investigated on the profitability of banks in Pakistan.

The material for this study is gathered through the review of earlier studies on the area covered in this thesis as accumulated in the chapter of literature review, theories supporting the concept of management, analysis of the related components in annual reports of selected banks covered in the following sub-sections.

3.1 Research Hypothesis

H1: There is significant effect of nonperforming loans on the profitability of banking sector in Pakistan

H2: There is significant effect of provision against nonperforming loans on the profitability of banking sector in Pakistan.

3.2 Operational Definitions of Variables

3.2.1 Profitability

Profitability is a dependent variable in research hypothesis developed for this study and is measured by net profit margin. It is an indicator of return earned as a result of business activities over the period. Revenues of banks are segregated into two parts; interest revenue and non-interest revenue. However, the key sources of revenues for banks are interest over advances. Net profit is calculated after deducting operating expenses and taxes from the revenues generated.

3.2.2 Volume of non-performing Loans

Non-performing loans (NPLs) are one of the independent variables in our research hypothesis and are measured by NPLs to Gross Advances for the purpose of analysis. NPLs are the loans that are due for payment since more than 90 days of the due date. Once the outstanding loans cross the due date, these are reported as overdue loans by banks. Criteria for classifying such loans gets started when these loans become 90 days overdue. There are three categories of classification as per prudential regulations (PRs) specified by SBP; substandard, doubtful and loss. Loans are classified as 'substandard' when they become overdue by 90 days, as 'doubtful', over becoming overdue by 180 days and as loss once they cross a year i.e. 360 days. However, trade bill are directly classified as loss when they cross 180 days after due date. Besides, these objective classifications specified by SBP, loans are also classified on subjective basis depending upon the worsening quality because of the factors other than being overdue.

3.2.3 Provision against Non-Performing Loans (NPLs)

Provision against NPLs is the second independent variable of our research hypothesis and is measured through coverage ratio for the purpose of analysis. Provision against NPLs are created in order to handle the losses that may arise due to non-payment of outstanding advances. Again, as per the directives in SBP PRs, provision against substandard loans are to be at 25% of the non-performing loan amount, 50% for doubtful loans and 100% for the loans that are moved to loss category.

3.3 Sources and Methods of Data Collection

The data for this study has been collected through both secondary as well as primary sources. Literature related to the study has been studied in detail and review of the same may be found in section 2 above. Financials of the banks (quantitative data) have been collected for 12 years from 2008 to 2019 and analyzed through the Microsoft excel and SPSS in order to validate the research hypothesis.

Table 1. Sources of Secondary Data

S. No.	Sources of Secondary Data	Period Covered	Comments
1	Banks Financial	2008 to 2019	Year 2020 has not been included to have normalization in data because unusual conditions of COVID-19 effected the financial performance.
2	Literature	1997 to 2023	

Sources of primary data and sample size that can be better applied are being appended below.

Table 2. Sources of Primary Data

<i>S. No.</i>	<i>Sources of Primary Data</i>	<i>Population</i>	<i>Sample Size</i>
<i>1</i>	<i>Banks</i>		
	<i>1. Government Owned Banks</i>	<i>5</i>	<i>20%</i>
	<i>2. Private Banks</i>	<i>15</i>	<i>20%</i>
	<i>3. Foreign Banks</i>	<i>6</i>	<i>20%</i>
	<i>4. Islamic Banks</i>	<i>5</i>	<i>20%</i>
<i>2</i>	<i>Audit Firms</i>		
	<i>1. Category A</i>	<i>15</i>	<i>10%</i>
	<i>2. Category B</i>	<i>15</i>	<i>10%</i>
	<i>3. Category C</i>	<i>13</i>	<i>10%</i>
<i>3</i>	<i>State Bank of Pakistan – Banking Policy Department</i>	<i>1</i>	

3.4 Methods of Data Analysis

From the above primary data sources, interviews have been conducted from the executives of related bank officials and the external audit firm. Qualitative analysis have been made over these interview responses.

For the purpose of analyzing quantitative data, Ordinary Least-Squares (OLS) regression technique has been used, with the consideration of Fixed Effects (FE) assumption, as employed in the replicated study. Fixed effect model has been used due to time variant predictors and dependent variables. Net profit margin (NPM) has been used as dependent variable. Volume of non-performing Loans and provisions against NPLs are decided to be the independent variables. Volume of non-performing loans has been measured through NPLs to Gross Advances and Provision against non-performing loans has been measured through coverage ratio. Liquidity ratio, capital adequacy ratio (CAR) and GDP (to keep in consideration the stage of economic cycle in the economy) are the control variables. Graphical depiction of the variables has also been made to endorse the results.

4. Results and Discussion

Credit and Risk Management are the prime and crucial functions of banks' management. If not maintained properly, the credit risk may result into default by the borrowers thus raising non-performing loans. Hence, this work has taken into account the relationship of these non-performing loans with the profitability of banks, considering the importance of banking industry in the economy of Pakistan.

Financial statements of six banks selected from the four major categories of banks applying stratified random sampling and sample size of 20% have been reviewed for the purpose of analysis.

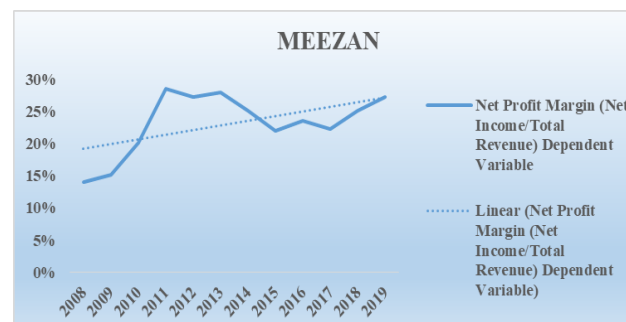
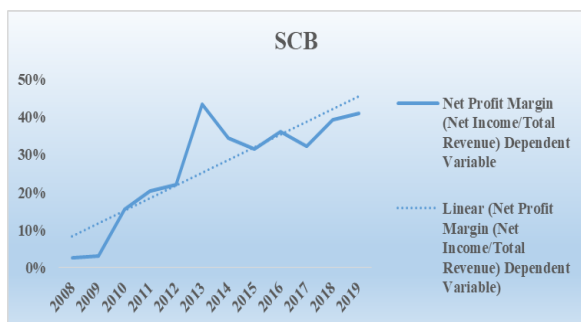
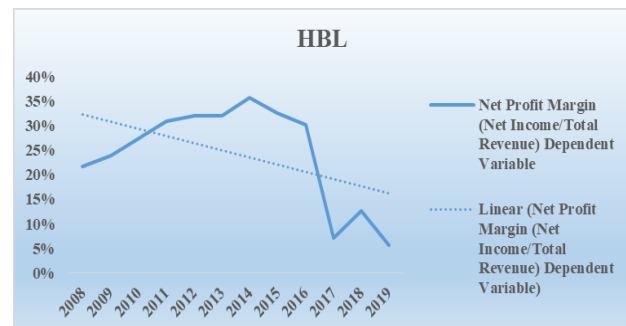
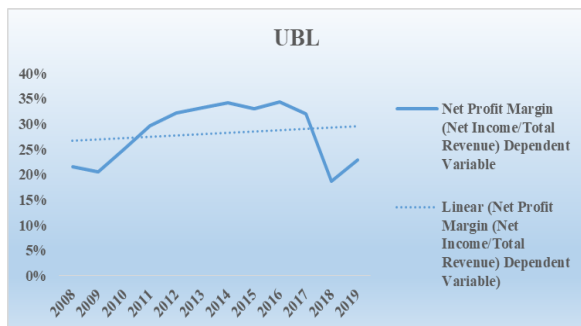
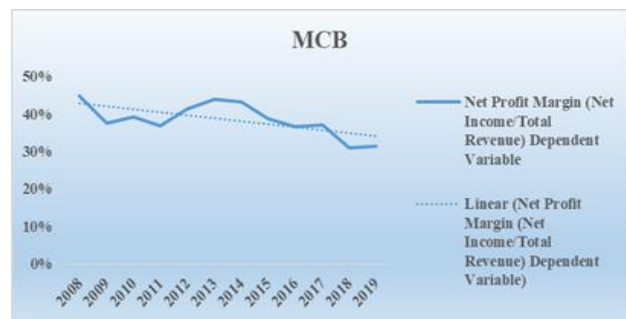
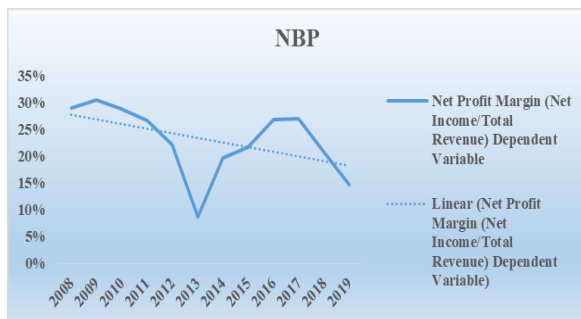
Graphical depiction of the variables and significant quantities in these financial statements portray their trend over time as follows.

4.1 Net Profit Margin (NPM)

Net profit margin has been taken as the indicator of profitability and dependent variable for this work. Overall, a clear declining trend may be observed in the profitability of selected banks over the period

from 2008 to 2019. Bank-wide depiction reflects that profitability of NBP, MCB and HBL declined whereas raised in UBL, SCB and Meezan bank.

Bank wide Graphical Depiction of Net Profit Margin

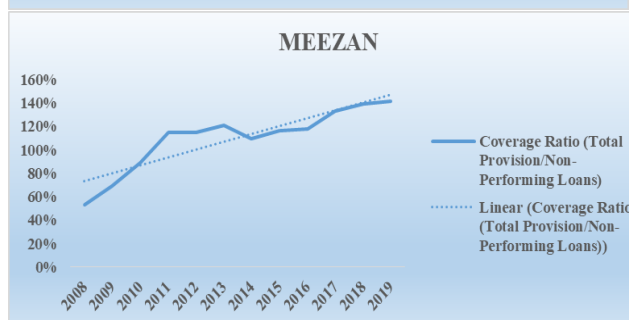
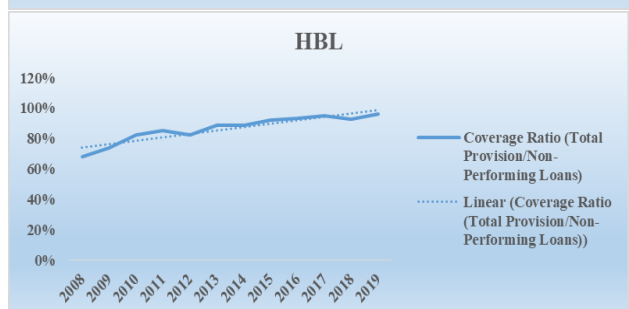
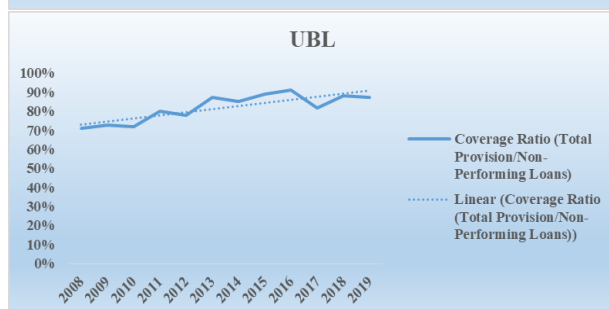
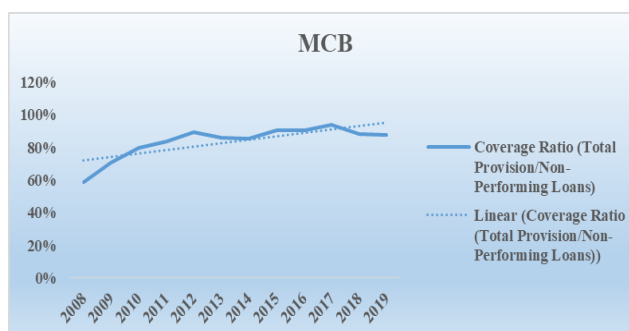
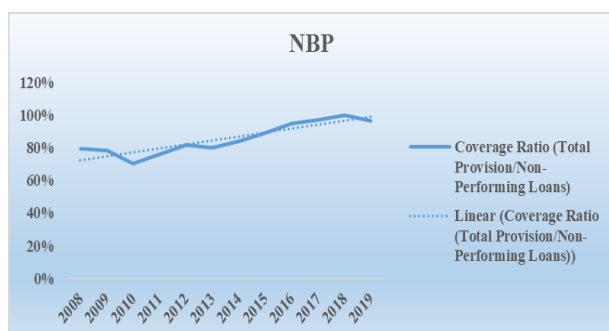
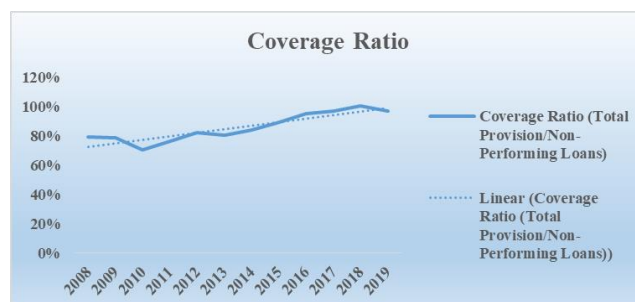


4.2. Coverage Ratio

Coverage Ratio has been taken as the measure of provision created against non-performing loans and independent variable for this work. Typically, an increasing trend may be observed in provision against

NPLs of selected banks over the period from 2008 to 2019. Coverage ratio of all the banks selected for this study is showing an increasing trend over the study period).

Bank wide Graphical Depiction of Coverage Ratio



Aamir Ilyas, Divisional Head, Corporate & Global Transaction Banking Operations Division, MCB Bank Limited mentioned the following reasons for increase in provision against NPLs while at the same time decline in overall NPLs.

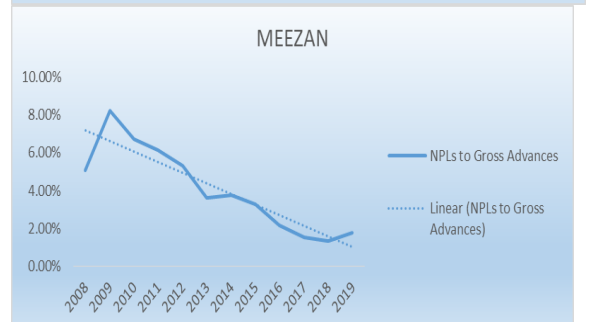
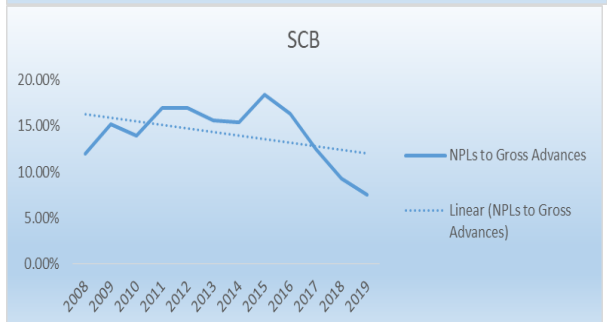
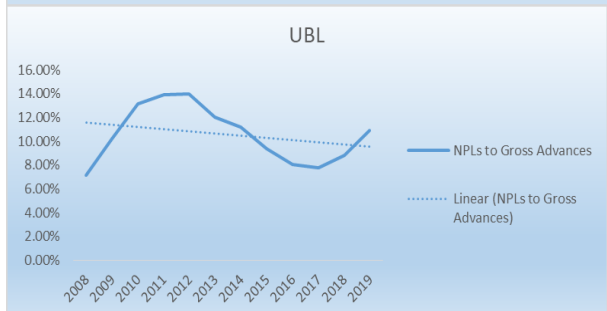
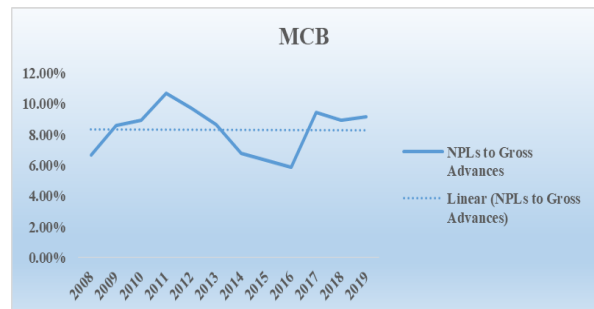
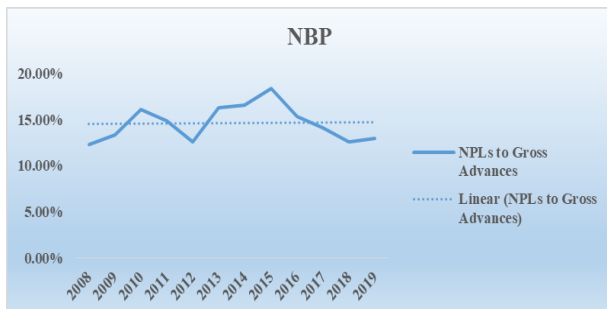
- i. First is the deteriorating quality of existing NPLs for example the conversion of sub-standard into doubtful or loss categories.
- ii. Window dressing is another reason for increase in provisions by banks. Banks invest huge sums in Treasury bills those are risk free securities issued by government in order to uphold their profitability and getting attractive profits by the government. Nevertheless, the banks have fear to face future fall

in these earnings means ultimate deterioration in profitability. Since, they are keeping higher provisions alongside their advances so as to future losses, may be covered from there. Aamir et, al. further added that if this increase in NPLs provision is due to the deteriorating quality of non-performing loans then if not currently, it will definitely effect profitability in the long run. These responses have also been endorsed by the regional manager, Global Transaction Banking, MCB Bank Limited.

4.3. NPLs to Gross Advances

NPLs to Gross Advances has been taken as the measure of non-performing loans and independent variable for this work. It has been reflected from the pictorial trend that there is no significant increase/decrease in NPLs of selected banks over the period from 2008 to 2019. Bank-wide depiction reflects sharp decline in non-performing loans of Meezan Bank during the study period. However, it has been found stable or slightly declining in remaining banks under this study.

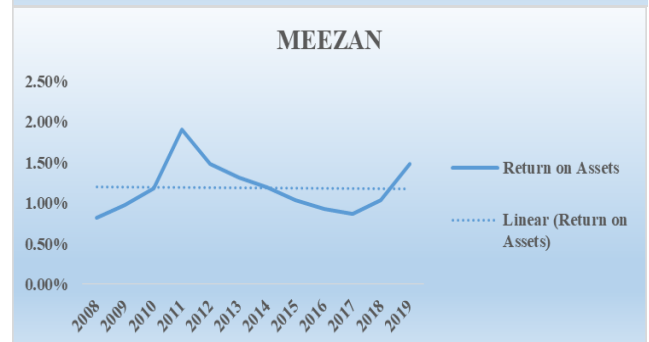
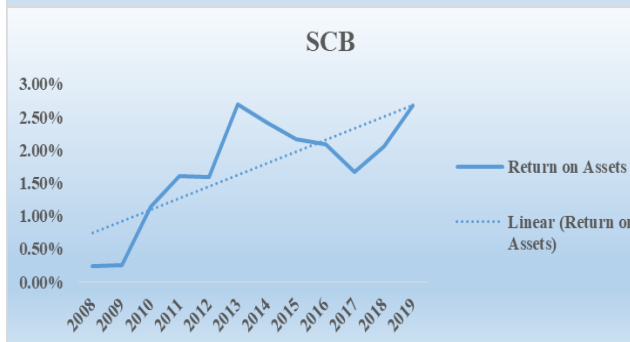
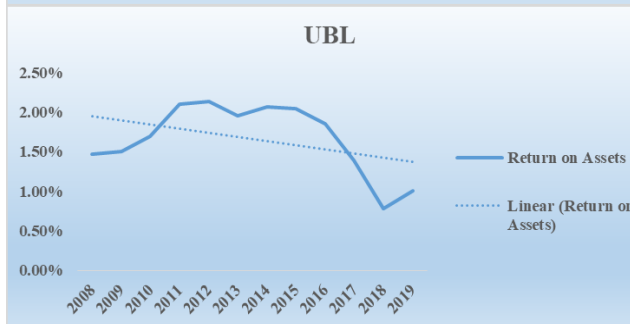
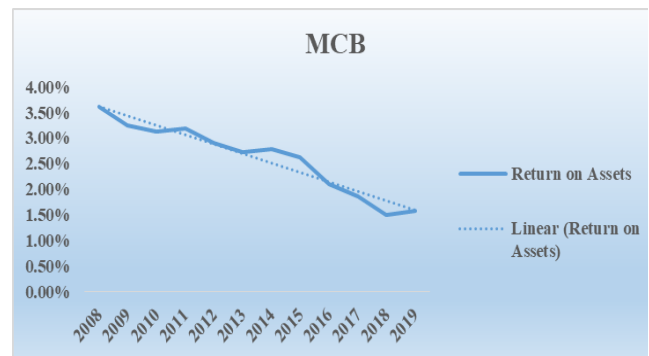
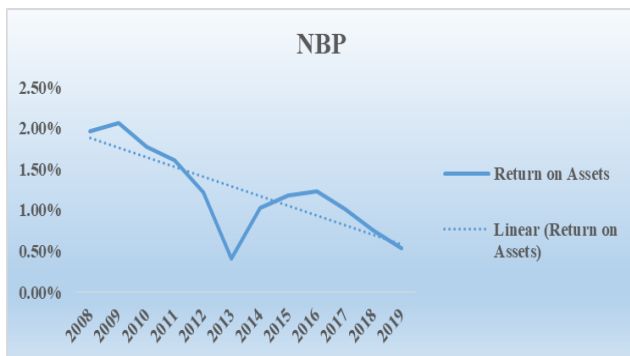
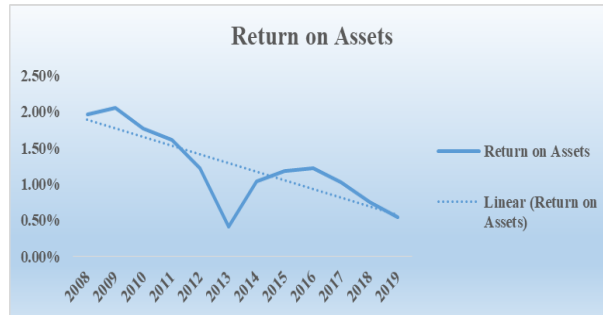
Bank wide Graphical Depiction of NPLs to Gross Advances



4.5 Return on Assets (ROA)

This measure of return is also reflecting a sharp decline during the study period, raising question over the quality of assets. Return on assets has declined for all the banks except Standard Chartered bank and Meezan Bank.

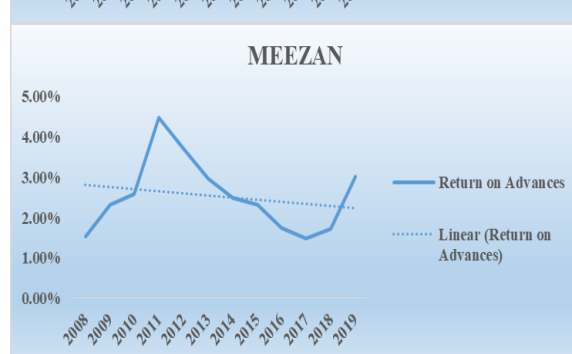
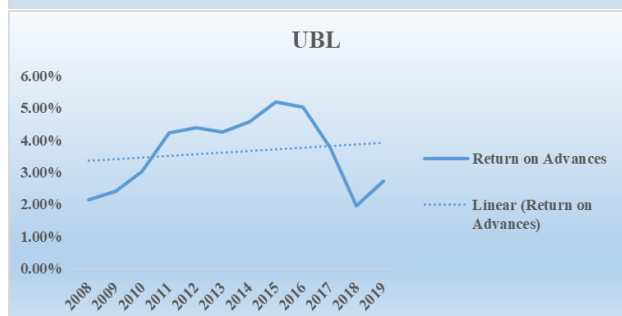
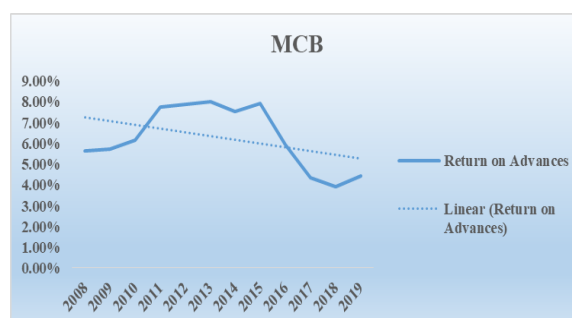
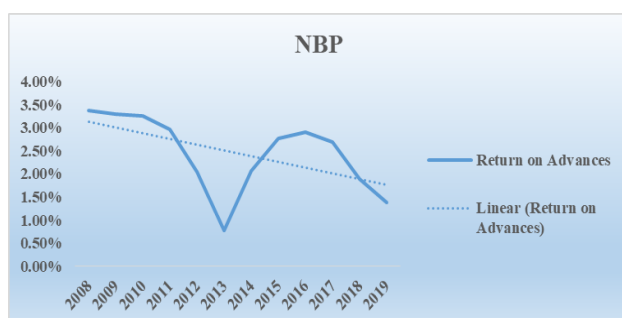
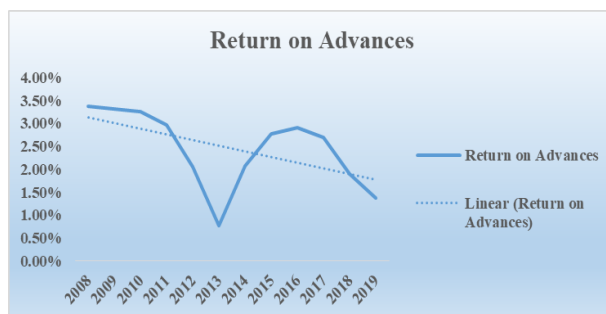
Bank wide Graphical Depiction of Return on Assets



4.6 Return on Gross Advances

Advances are the prime assets of banks and source of their major revenues. Decline in the return being generated over these advances over time is reflecting the lack of managing the same with respect of recoveries. Return on advances has mainly declined in NBP, MCB, HBL and Meezan bank.

Bank wide Graphical Depiction of Return on Gross Advances



Below are the important points from above representation:

- All three measures of return are showing decline over the period of twelve years from 2008 to 2019.

➤ Provision against non-performing loans have been increased without increase in non-performing loans. It may be the outcome of bad management of these special assets that are resulting in deteriorating loan quality with the passage of time.

Detail results of the linear regression using OLS and fixed effect assumptions are appended in below tables.

4.7 SPSS Results

4.7.1 Regression

Table 3.1 Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Coverage Ratio, SCB, HBL, MCB, UBL, NPLs_to_Gross_Advances, MEEZAN ^b	.	Enter

a. Dependent Variable: Net_Profit_Margin

b. All requested variables entered.

Table 3.2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.588 ^a	.346	.274	.082136132300000

a. Predictors: (Constant), Coverage_Ratio, SCB, HBL, MCB, UBL, NPLs_to_Gross_Advances, MEEZAN

Table 3.3 ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.228	7	.033	4.837	.000 ^b
	Residual	.432	64	.007		
	Total	.660	71			

a. Dependent Variable: Net_Profit_Margin

b. Predictors: (Constant), Coverage_Ratio, SCB, HBL, MCB, UBL, NPLs_to_Gross_Advances, MEEZAN

Table 3.4 Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.032	.115		.274	.785
	MCB	.178	.045	.693	3.944	.000
	UBL	.071	.039	.278	1.809	.075
	HBL	.031	.042	.122	.741	.461
	SCB	.030	.034	.117	.889	.377
	MEEZAN	-.001	.058	-.002	-.010	.992
	NPLs_to_Gross_Advances	.390	.481	.169	.810	.421
	Coverage_Ratio	.168	.079	.282	2.135	.037

a. Dependent Variable: Net Profit Margin

According to these results, the first predictor NPLs to gross advances showing non-performing loan is insignificant with profitability. These results confirm the rejection of first alternative hypothesis developed. However, the second predictor coverage ratio portraying non-performing loans is significant.

The insignificant results for the regression between non-performing loans and profitability may be due to the insignificant changes in non-performing loans over the study period relative to the total gross advances of banks reviewed under this study. These results endorse the graphical depiction above where non-performing loans have not changed much over the study period while averaging out for all six banks. However, coverage ratio has been increased with the decline in net profit margin. Increase in coverage ratio at one end are in conformity with the conservatism principle of financial accounting. While at the other end, resulting in reduction of net advances those are the key assets of bank. The individual reflection of these variables for all six banks may be reviewed in respective detail of financial components.

5. Conclusion

Findings of the study confirm significant relationship in between coverage ratio and net profit margin thus accepting the second alternative hypothesis. Whereas, the results are insignificant for non-performing loans and profitability. These results conclude that ratio of non-performing loans to total advances has not increased for most of the banks whereas provision held against the same is increasing. The increasing provisions are being resulted in the declining profitability. These results have also been endorsed by the executives in MCB Corporate banking and team leader in the external audit firm KPMG. This increase is reflecting the deteriorating quality of existing classified advances and ineffective management of the same by banks. If not handled appropriately, this situation will cause the significant expenditures by banks on managing their special assets. Moreover, the quality resources of banks will have to be employed in handling litigations against the same in future. Increased burden of expenditures and ineffective utilization of resources will ultimately result in further decline in banks' profitability in the long run.

5.1 Policy Implications

Following policy implications are being suggested keeping in view the above conclusive evidences regarding non-performing loans, their provision and profitability.

Banks should focus more on the provision created against classified advances besides volume of non-performing loans because underutilization of resources due to these heavy provisions are being resulted in lowering banks' profitability.

Banks should develop a system through which the non-performing advances being moved to the higher category of classification should be administered and restructured in order to reduce provision held against the same. These loans, if restructured, will not only remove these provisions from the bank financials as well as will support in the revenues. In other words, expected future write-off of these loans and reversal of provision will be replaced from the profit from restructured finances.

State Bank of Pakistan being regulator of banks in Pakistan should devise policies regarding these deteriorating quality of classified advances. At present, prudential regulations specify only keeping the provision against classified advances, however, no policy supports are available and no restrictions are made about the period up till when these provisions can be maintained. Hence, a policy directive should be issued where this period is restricted and banks should be kept bound to restructure such loans after this period.

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