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On

**Impact of Credit Risk Management on financial performance of Commercial Banks
in India**

By

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of

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At

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Title of Summer internship:

Impact of Credit Risk Management on financial performance of Commercial Banks in India

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Ok. Akash. You can submit now.

Best wishes,
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ACKNOWLEDGEMENTS

The present work is an effort to throw some light on “Impact of Credit Risk Management on financial performance of Commercial Banks in India”. The work would not have been possible to come to the present shape without the able guidance, supervision and help to me from my guide. With deep sense of gratitude, I would like to acknowledge the encouragement and guidance received from my guide Dr. Faisal Ahmed.

Date

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Chapter 1: Introduction

Economic development of any nation mostly depends upon its sturdy financial set-up. Banking system is one in every of the largest suppliers of credit in associate economy. Banks as associate mediator role accelerates the economic process by giving numerous monetary services to the lots. monetary establishments square measure basically important for the economic development of any nation rather like blood arteries square measure very important for the citizenry since they place into force the monetary possessions from those that square measure having it to those that square measure in would like. disposal is one in every of the main activities of the banks for generating their revenue. however disposal business inherits default risk just in case of non-fulfilment of commitments on the a part of borrowers. this example is termed as credit risk that attracts heaps of attention of the banking regulators to plan and review the demanding credit risk management practices so the danger in disposal activities may well be controlled well in time at numerous stages or reduced to zero. Therefore, banks strictly have to be compelled to follow credit risk management practices for its survival and growth within the long-term and it helps them to sustain and increase the profitableness through institution of adequate and effective credit risk management policies, systems, surroundings that involves assessment, identification, monitoring, dominant of credit risk.

Banks generate financial gain from one in every of their main activities of disposal business. they have to concentrate on credit risk because it influences the profitableness. The city Committee on Banking oversight (2001) explained credit risk because the possibilities of occurring loan losses absolutely or partly, thanks to risky advances. The performance of banks mostly depends upon the credit risk management. Increase in credit risk exposure would result in decrease within the monetary strength of the banks. Risk in disposal arises once the receiver or the counter party doesn't fulfil his/her commitments regarding disposal,

trading, hedging settlements or the opposite monetary transactions. whereas providing loans and advances, it had been the core activity of the banks to analyse the monetary soundness or capability of the borrowers since its beginning. Growth within the spinoff markets has enlarged the scope of credit risk virtually on the a part of the banking sector. per city (1999) credit risk has been explained because the chance of somebody or receiver not creating their preset written agreement commitments as and once they fall due on united terms. Higher credit risk interrupts the financial position of the banks thus badly. Therefore, management of credit risk is most significant observe that has characteristic, measuring, aggregating, dominant and continuity in observation the credit risk. (Greuning and Bratanovic, 2009).

Increasing non-performing loans is associate ominous scenario for the banks because it not solely place banks into monetary stress however also can take them towards closing down. Default risk or credit risk is thus very important to handle for the banks as a result of their survival and growth depends upon it. in sight of accelerating loan losses, city accord norms recommend banking sector to stay optimum capital needs and reducing the part of credit risk in disposal business. the most purpose of city norms is to confirm that banks have decent capital to soak up the monetary shocks and stay solvent the least bit times. Quality in disposal improves solely with the intervention of superior regulative authorities United Nations agency compel banks to enhance and follow norms for transfer transparency in operational activities of the banks. Moreover, the norms adhere to the international standards.

According to Psillaki et al. (2010) effective management of credit risk results in increase within the stability, profitableness and optimum allocation of funds. economical and effective performance of banking sector supports monetary stability of the country (Oke et al. 2012). Literature on banking sector performance states that main aim of the monetary

establishments is to yield returns and reducing the extent of risks taken to realize this final objective (Hempel et al., 1998). business banks' profitableness is that the main basis for his or her product innovation, enlargement and effectiveness (Hempell, 2002). At the time of crisis, profitableness is a cushion for the business banks to face shocks and adversities. Higher profits have tendency to soak up losses and it's the most indicator for mensuration bank's performance and potency.

In any quite business corporations, profitableness is that the very important part. Banking corporations additionally assess their business activities undertaken to understand their profitableness performance. Artiodactyl mammal (Capital Adequacy, plus Quality, Management, Earning and Liquidity) analysis is employed by the banks to analyse monetary performance. Banks adopt artiodactyl mammal model analysis to assess numerous sorts of risks and managing them effectively. monetary ratios are long practiced by the researchers to judge the bank's monetary performance. Banks use CAMELS rating for examining their monetary health and performance (Rozanni & A. Rahman, 2013).The present analysis uses artiodactyl mammal elements beside the opposite variables like non-performing loans magnitude relation and loan loss provision magnitude relation to understand their relationship with the bank's monetary performance/profitability.

The studies within the past have shown that the credit risk management is a very important determinant for the survival, growth and profitableness of the monetary establishments also because the relationship between credit risk management and profitableness in numerous countries for various periods of your time with mixed findings. this analysis is an endeavor {to investigate to research to associatealyze} an empirical association between the credit risk management and banks' monetary performance. an endeavor has been created to understand the applied math impact of credit risk management indicators on profitableness of high 10 public sector business banks in Asian nation for a amount of eight years from

2010-2017. Results of the study can raise the present stock of empirical findings within the field.

Chapter 2: Literature Review

2.1 Commercial Loan Theory

This study adopted the bank loan Theory as utilized by Taiwoet et al., (2017). bank loan Theory is that the oldest banking theory, additionally known as the important bills belief. it's explicit that banks ought to solely lend on short-run cash equivalent and self-liquidation. consistent with Hosna et al., (2009), the bank loan theory is back-gearred to influence persuasively each the bank disposition and also the general economic activities. Strict adoption of this theory can reveal that it's expected to function a financial offer to changes in combination economic activity.

Kargi (2011) posited that the sturdy tie to the present conception is quite orthodox if thought is given to the actual fact that at the time of the dominance of the idea, there have been very little or no secondary assets, that may have served as liquidity buffer for the bank.

2.2 Credit risk management

According to Psillaki et al. (2010) effectively managing the credit risk helps to increasing the soundness, profit and best allocation of funds. The monetary stability of the country depends on the economical and effective performance of banking sector (Oke et al. 2012). Literature on banking sector performance states that main aim of the monetary establishments is to yield returns and reducing the amount of risks taken to realize this final objective (Hempel et al., 1998).

Nazir, Daniel and Nawaz (2012), describes there square measure 2 major sorts of risks unsystematized and general risks that square measure typically found in market. it's found

that through the diversification in portfolio of investment, the entire|the full|the overall} risk that associate degree capitalist who goes to create investment may be decreased and it's done through shopping for a pool of assets. Furthermore shopping for bonds and stock from not from one trade or company and altogether different companies or firms, may be useful. However by such kind of activities risk may be reduced up to a certain limit but it cannot be completely terminated as costs of all assets and stock are affected due to the major changes in markets (Barealey, 1986). Therefore it was concluded, that there are mainly dual variables of rate of return or total risk variation. The rate of return can help in showing the movement of asset prices of an organization that are caused by the elements that are specific to the particular organization and the whole market. On the other hand the movement of prices that results in variation in whole market condition can be measured by the total risk variation. One of them is determined as "unsystematic" risk (diversifiable risk) on the contrary the other one is determined as "systematic risk" (Brealey, 1986).

Rehman et al 2019 known risk management ways undertaken by the industrial banks of Baluchistan, Pakistan, to mitigate or eliminate credit risk. The findings were important as they helped industrial banks in understanding the effectiveness of assorted risk management ways and should apply them for minimizing credit risk. It helped to analyse the opinions of the staff of selected industrial banks regarding that ways square measure helpful for mitigating credit risk.

Arora 2014 provided some empirical evidences on the connection between the credit risk management practices of business banks in Asian nation. it had been conceptually cleared that credit goodness and collateral needs square measure the foremost necessary aspects in Credit Risk Management System in Asian nation Banks that successively have an effect on the chance management practices of bank. The analysis results valid the notion that

credit goodness analysis and collateral needs square measure of utmost importance in enhancing risk management practices of banks.

Sharifi et al 2018 recommend that the identification of credit risk considerably affects the credit risk performance. The results square measure sturdy as credit risk identification is negatively associated with annual growth in NPAs or loans. there's proof in support of a priori expectation of higher credit risk performance of personal banks compared to it of presidency banks.

Researchers have studied the elements of risk management normally (Al-Tamimi and Al-Mazrooei, 2007; Hassan, 2009) and located risk identification as a very important part for up risk management performance. Similar findings were reported by studies that specifically examined credit risk management in banks. Al-Tamimi (2002) instructed that credit risk is that the most contentious risk Janus-faced by industrial banks in UAE. The reported results recommend that credit risk assessment may be a important internal issue related to the loan assessment system. additionally, the seizure and disposal of collateral square measure the numerous challenges in loan observation and dominant system in credit risk management by Indian banks.

2.3 Risk Management

According to Appa, 1996 According to App, in 1996, the risk management process involves identification, measurement, and management control. Risk management is a human effort that combines risk identification, risk assessment, and policy expansion to control and reduce uncertainty through the use of administrative resources. If the borrower fails to fulfill its loan obligations, losses may occur.

Campbell, 2007 pointed out that in order to be proficient in handling different types of risks, one must be aware of them before attempting to manage them. The risk offsets most of the risks associated with the banking industry. Many reasons for these risks have a square measure, such as: consistent with Williams and Boundewijn et al, 2006, sometimes it is assumed that risk management does not mitigate risks; in contrast, their purpose is to maximize returns based on the risks the company may face. Gostino (1992) outlines the credit risk associated with a credit event, the possibility of losing all or part of its outstanding credit (default risk) or the recipient's bankruptcy based on a written agreement. (Basel Committee on Banking supervising, 1999 says that credit risk may be a likelihood that in accordance with in agreement terms obligor (which is at risk of pay to bank) of bank or counterparty are unsuccessful in fulfilment of its agreement. it's been explicit by Heffernan (1996), the danger associated with associate plus or associate advance turn out to be written off due to the chances of non-payment of the loan amount either due to full failure of delay.

2.4 International Approaches for Risk Management

It is seen that globally only three approaches are accepted by the commercial banks in aspect of Risk Management. One of them is the Basic Indicator Approach (BIA) that describes that some of 15 August 1945 of monetary establishment, Gross financial gain ought to be unbroken as capital for operational risks. Generally, gross financial gain is that the total of fee financial gain, interest margin and a few different incomes. however on international level it is noticed that the banks do not adopt such a straightforward model that contains square measure in robust condition square measure.

On the other hand, the benchmark method is based on the breakdown of financial gross profit by business area, through quantification of operational risk capital, and partial adjustments through the standard method (SA). Regulators distinguish between two

different levels of operational risk. For companies with extremely low risk requirements on the square (such as wealth management, retail banking), the percentage change in the total financial profit used to estimate the capital change of Twelve Tone Music will increase to eighteen percent and high for companies classified as extreme. Risks (such as clearing and trading), since August 15, 1945, have linked the agreed total financial profit (such as commercial banking) to the various teams. Finally, banks can use advanced measurement methods (AMA) to develop any regulatory capital valuation models that can often reliably cover the operational risks of their business on a regular basis. % As Chappelle et al. directly put forward in 2004, the regulator recommended that international banks follow the extended measurement method. Chochop adjusted his theoretical risk model, applied mathematical verification and quantitative information.

2.5 Empirical Studies

For the measure of loaning call quality or credit risk of the banks, the sooner studies, (Berger & DeYoung, 1997; Samad, 2004; Kolapo et al, 2012; Shrub & Rajan, (2003) uses a totally different method for indicators of credit risk like the quantitative relation of Non-Performing Loan to Gross Loan (NPLGL). It calculates the proportion of gross loans that square measure uncertain or Non activity Loan in loan portfolio of banks. It is considered to be one of the most important indicators for measuring bank credit quality and credit risk. A lower scoring ratio indicates lower credit uncertainty, improved positive quality and lower credit risk. Another goal of Samad (2004) et al.; Colapo et al. (2012); Boani et al. (2012) uses the quantitative loan loss reserve ratio (LLRGL) as an indicator of credit risk. This ratio (bad debt value adjustment ratio) calculates the ratio of total loans that have not been cancelled but only deferred. Traditionally, higher quantitative indicators indicate higher credit portfolio, management quality and credit risk. The conclusion of Samad et al. (2004);

Colapo et al. (2012); Boachen (2012). Measures the ratio of the location of provision to impaired or overdue loans. A higher quantitative ratio is a sign of lower credit risk and higher management quality. Basel Accord (1998) counseled Capital Adequacy quantitative relation (CAR) for judgment of plus quality and applicable Credit Risk Management. it's the quantitative relation of total capital to risk adjusted assets of the bank. the upper the quantitative relation is that the sign of higher assets quality and bank Capital Adequacy and low credit risk. Several studies are embarked to specialise in profit of banking sector notably external and internal determinants relating to each single country and race. The first cluster includes Perera et al. (2013); Masood and Ashraf (2012); Athanasoglou et al. (2008) and Francis (2013).

Furthermore, Tefera (2011) study that was control in Ethiopia on the same topic regarding the impact of credit risk management, Samy and Magda (2009) conducted study in Egypt. These researches found positive relationship among automobile and monetary Performance (ROA) of economic banks. Moreover, there square measure many studies that have shown the importance of capital within the banking sector. Consistent with study of Morgan, (1984) the importance of capital adequacy has high importance for business banks. He additional explicit that business banks have a accountability to retain the spare capital adequate quantitative relation. This is predetermined in Basel II Accord, which is implemented on banks that is about how much minimum capital (10%) they need to place aside to show against these kinds of operational and financial risks that they generally face.

2.6 Research Gap

The literature review shows that there is need for a study to get knowledge about the current trends Credit Risk Management and its impact on financial performance of Commercial Banks in India. As the Research data is provided for various different countries

but on available particularly for India. Moreover the study present is till 2018 and there is a lot of change in the same due to pandemic after 2019. The aim of the research is to fill this Gap for future use.

2.7 Objective of the study

1. To investigate the impact of non-performing loans on the financial performance of Commercial banks in India
2. To investigate the impact of capital adequacy ratio on the financial performance of Indian commercial banks

Chapter 3: Research Methodology

The present study aims to determine the impact of credit risk management measures on the banks' financial performance. The research design that has been used for achieving this research objective is quantitative research design. An empirical investigation is carried out to determine the statistical relationship between the profitability of public sector commercial banks for the period of eight years from 2014-2021 and credit risk management indicators of these banks. There are total 34 commercial banks operating in India and out of these 12 are public sector banks (PSBs). Out of these 12 banks 10 banks have been selected on the basis of total assets as on March 31, 2021 for the purpose of present research.

Secondary data is the source on which the present study is based on. The data has been collected from the RBI website and statistical tables relating to banks. The panel data regression model is applied to analyse the data.

3.1 Conceptual Framework

The conceptual model of the study shows Credit Risk Management and Financial Performance of commercial banks in India. Credit Risk Management is determined mainly by Non-Performing Loan Ratio (NPLR) and Financial Performance of a bank is determined by Capital Adequacy Ratio (CAR) and Return on Asset (ROA) and Return on Equity (ROE).

3.1.1 Independent Variable

❖ Non-Performing Loan

A nonperforming loan (NPL) refers to a loan in which the borrower is in default as they are unable to make the scheduled payments for a specified period. But the exact components of the non-performing loans status may vary on the basis of the specific terms of the loan. On the other hand "no payment" is usually defined as unavailability of payments of either principal or interest. The specified period also varies, depending on the type of loan and the industry. Generally, the period is between 90 days to 180 days.

- **Bad debt:** - Generally when the loan instalments of principal and interest on the loan amount are at least due by 90 days. And the lender no longer believes that their debt obligations will be fulfilled by the borrower. In this case the loan amount is written as a bad debt in the books of accounts of the lender.
- **Doubtful debts:** - The debts that are unlikely to be repaid by the borrowers. These are the loan Payments of principal and interest amount that are overdue by less than 90 days. And there are some reasons that create a doubt regarding the borrower ability to pay the outstanding loan in part or full.
- **Substandard debts:** - Loan in this category are inadequately protected by the current paying capacity and current worth of the obligor or of the collateral , if anything is pledged. A credit classified under this category must have a well-defined weakness that jeopardizes the liquidation of the debt.

❖ Capital Adequacy Ratio

Capital Adequacy Ratio is also known as Capital to Risk Assets Ratio is the ratio of a bank's capital to its risk. National regulators track a bank's CAR so that it complies with statutory Capital requirements and to ensure that it can absorb a reasonable amount of loss. It is used to measure of a bank's capital.

- Tier 1 Capital: - From a regulator's point of view Tier 1 capital is the key measure of a bank's financial strength from a regulator's point of view. It consists of core capital, which includes basically the disclosed reserves and common stock, but it may also include various non-redeemable or non-cumulative preferred stock.
- Tier 2 Capital: - This is also known as supplementary capital. It consists of various important and legitimate constituents of a bank's capital requirement. These forms of banking capital were largely issued by the Basel Committee on Banking Supervision. It was standardized in the Basel I accord, and left untouched by the Basel II accord.
- Risk Weighted Assets: A bank's assets or off-balance-sheet exposures which are weighted according to risk are called Risk-weighted asset. This type of asset calculation process/method is used in determining the capital requirement or Capital Adequacy Ratio for a financial institution.

3.1.2 Dependent variables

❖ Financial Performance

- ROA: - The ROA also known as return on assets helps in determining the percentage of how profitable a company's assets are in generating revenue. It helps in indicating how much profitable a company is compared to its total assets. ROA gives its manager, investor, or analyst an opportunity to know how efficient a company's management is at generating earnings using its assets.

- ROE: - The ROE also known as return on equity is a determinant of the profitability of a business in relation to the equity. As shareholder's equity can also be calculated by deducting all liabilities from all the available assets, ROE can also be thought of as a return on assets minus liabilities.

Table1: Dependent and Independent variables

Name of Variable	Abbreviation	Formula
Independent Variables		
Non-Performing Loan Ratio	NPLR	Non-Performing Loan / total loan
Capital Adequacy Ratio	CAR	Tier 1 Capital +Tier 2 Capital / Total Risk Weighted Assets
Dependent Variables		
Return on Assets	ROA	Net Profit / Total assets
Return on Equity	ROE	Net Profit / Total Equity

3.2 Population

The population of study is top 10 of the commercial banks of India.

3.3 Sampling techniques and Sample Size

The sampling method that is used for the selection of sample is a simple purposive sampling method. The sample size for the study is selected based on the following points:

- (i) The availability of reliable annual financial reports.
- (ii) The top commercial banks were selected on the basis of customer deposit liability. The total customer deposit liability of all commercial banks of India in 2021 was INR: 8.081 trillion out of which the selected ten banks customer deposit liability is INR: 5.82 trillion. However, selected banks were 68.28% of population on the basis of customer deposit liability.
- (iii) The selected banks were listed and quoted on the NSE or BSE India.
- (iv) All the selected banks have huge customer base.

3.4 Empirical Model

We have taken the panel regression model in the following form:

$$P_{it} = F(Y_{it}, Z_{it}) + e_{it}$$

Here P_{it} stands for bank i performance at a particular time t . Y_{it} stands for first independent variable of bank i at a particular time t . Z_{it} stands for second independent variable of bank i at a particular time t . e_{it} represents the error term.

The investigation of the link between credit risk management practices and commercial banks' performance is done using the empirical frame work given as follows:

$$P_{it} (\text{ROA, ROE}) = \beta_0 + \beta_1 \text{NPLR}_{it} + \beta_2 \text{CAR}_{it} + e_{it}$$

Here P_{it} stands for bank's financial performance through dependent variable (ROA, ROE) which are used as measures of profitability, β_0 is constant, $\beta_1 \text{NPLR}_{it}$ constitutes of the first independent variable of credit risk management of bank i at a particular time t , whereas $\beta_2 \text{CAR}_{it}$ is constitutes of the second independent variable of credit risk management of bank i at a particular time t . Where e_{it} is representing the error term of bank i at a particular time t .

Chapter 4: ANALYSIS AND INTERPRETATION

4.1 Descriptive Analysis

Table 2: Descriptive Statistics

ROA	NPLR	LLPR	CAR	AQ	Managemen t	E	L	
Mean	0.5137	5.1323	1.3295	12.2254	2.9186	0.4067	2.3517	9.0088
Median	0.6450	3.5470	0.9333	12.2200	2.0487	0.5145	2.3169	7.8874

Maximum	1.6701	21.2500	4.9150	15.3800	13.2100	2.6000	3.6180	23.6250
Minimum	-1.5333	0.8208	0.1710	9.8701	0.2300	-2.8	1.1114	4.1114
Observation	80	80	80	80	80	80	80	80

Table 3 indicates the earning of banks on an average basis in the following heads/basis/ domains, i.e., 0.51% Return on Assets employed.

Non-performing loans ratio of 5.13% depicts that selected banks have lower credit defaults. Mean value of Loan Loss Provision Ratio 1.32% shows that a sufficient amount of funds are kept aside by the banks against bad loans. Banks are keeping 12.22% CAR for its risk weighted assets, which is higher than the limits as prescribed by RBI (9%) and Basel norms (8%).

And the Asset Quality of banks are reflecting 2.91% which means banks under study adopt good credit risk management practices for managing its bad debts. The mean values of other explanatory variables that are management quality (0.406%), earnings ability (2.351%) and liquidity (9.008%) show that chosen banks have a good profitability per employee, net interest income from total assets are quite well and lastly the banks are keeping sufficient amount of liquid assets out of their total assets.

4.2 Multicollinearity Analysis

When two independent variables are highly correlated, the problem of multicollinearity occurs. VIF test is employed using SPSS software to assess the multicollinearity within our data.

Multicollinearity is supposed to occur when VIF is above 10 (Gujarati, 2004).

Table 3: Collinearity statistics

Independent Variables	Tolerance	VIF
CAR	0.741	1.349

AQ	0.02	50.228
MGT	0.373	2.683
E	0.577	1.733
L	0.493	2.029
NPLR	0.023	43.688
LLPR	0.076	13.099

Table 4 shows the Collinearity test statistic results wherein, three variables namely asset quality, non-performing loans and loan loss provision ratio have multicollinearity as their respective VIF value is above 10. Therefore, the three above mentioned variables are excluded from the final analysis.

4.3 Analysis of Panel Regression

There are mainly two models for the analysis of panel data: Fixed Effect Model (FEM) and Random Effect Model (REM).

The term fixed effect signifies when omitted variables are controlled that may differ between cases but does not vary over time, it is time invariant.

Random effect model (REM) is applied when some omitted variables may not be varied over time but vary between cases and other variables may not vary between cases but vary over time (Sayrs, 1989).

Hausman test statistics is used to decide between the models i.e. FEM or REM. Running a Hausman test statistic at 5% level of significance has a chi-statistic of 23.19 with five degrees of freedom and a corresponding p-value is 0.00. Therefore, null hypothesis is rejected at 5% level of significance and FEM is preferred over REM. Hence, fixed effect model (FEM) is adopted for the final analysis of data.

Table 4: Results of Panel regression (FEM)

Independent Variables	Coefficients	Std. Error	t-statistic	Sig. Value
CAR	0.247138	0.228063	1.083638	0.2854
MGT	1.004293	0.061907	16.22251	0.0000
E	1.058372	0.184589	5.733677	0.0000
L	0.027107	0.097745	0.277327	0.7830
Constant	-1.490755	0.560978	-2.657420	0.0115
F-statistic	82.66032			0.000000
R-squared	0.968207			
Durbin Watson	1.240060			

Thus, the dependent variables are very well explained by independent variables or it can be said that credit risk management indicators have an impact on the profitability of banks under study. Furthermore, R-squared value of 0.9683 shows that credit risk management indicators (i.e. independent variables) have greater influence on the dependent variable (i.e. ROA). In other words under study, independent variables jointly explain approximately 96% change in dependent variable. Moreover, panel regression results of the study indicate that management quality and earning ability variables have a significant impact on the profitability (ROA) of the public sector banks during the study period.

On the contrary, it has been found that profitability of banks ($p\text{-value} > 0.05$) is not significantly impacted by capital adequacy ratio and liquidity variables.

As per Table 5, on the basis of panel regression coefficients the regression equation of profitability (ROA) may be written as below:

$$\text{ROA} = -1.490755 + 0.247138 (\text{CAR}) + 1.004293 (\text{Mgt}) + 1.058372 \text{ €} + 0.027107 (\text{L})$$

4.4 Discussion

The main focus of the present research is to investigate the statistical relationship between the credit risk management indicators and financial performance of the public sector commercial banks taken under study for the period of eight years from 2010-2017. During the study period, the overall findings show that the credit risk management measures significantly impact the profitability of the PSBs. A positive relationship is to be found between capital adequacy ratio and ROA.

Capital adequacy ratio is the amount of funds available to the banks in case of losses and it also serves as the protection to depositors and promoting the stability in the banks. Positive relationship between CAR and ROA reveals that if CAR decreases profitability also decrease and vice-versa. Theoretically also, it is expected to have the positive relationship between CAR and profitability. To remain solvent and absorb adverse situations banks need to keep sufficient amount of funds in capital. Under study, according to the empirical results, capital adequacy ratio is found as an insignificant variable to explain the financial performance (ROA) of the banks.

A positive correlation is reflected by the results between management variable and the profitability of public sector banks. Further, as per the statistical results, management variable is found to have a significant impact on the profitability (ROA). Management quality shows the ability of the management in carrying out banking activities efficiently and effectively. Profit per employee is indicated by management quality variable in present research. It reveals the productivity of employees in yielding profits. The recorded positive and statistical relationship between management variable and ROA shows that management adheres to various internal and external regulations applicable to banks efficiently and effectively adheres to various internal and external regulations applicable to banks and are performing well.

The relationship between earnings ability variable and profitability (ROA) is found to be positive. It means increase in earnings would tend to result in the increase in profitability of the banks. Earnings show the ability of banks to earn consistently and their potential growth in the future. In the present study, earnings variable is indicated by the net interest margin (net interest income to total assets). Net interest margin ratio shows the ability of the banks to generate its interest income from its total assets. The empirical findings of the research reflects earnings ability variable as significant variable to affect the profitability (ROA) of the banks during the study period.

The statistical relationship between liquidity and profitability has been found to be insignificant and positively related. This means higher liquidity position of the banks would tend to higher profitability. Liquidity parameter states the ability of bank in meeting its financial commitments and it is measured as a ratio of liquid assets to total assets.

Various studies in the past confirm the relationship between credit risk management and profitability and support the findings of the present research in this area. Achou et al. (2008) found a significant association between profitability measured as return on assets (ROA), return on equity (ROE) and credit risk management measured as non-performing loans (NPL). Hosna et al. (2009). On the contrary, Boahene (2012) found a positive relationship between credit risk measures taken as non-performing loans to total loans meaning thereby that instead of increasing bad loans there is an increase in profitability. Abiola and Olausi (2014) found poor credit risk management strategies among sampled banks of Nigeria where profitability is rising even due to loan losses. Adeusi et al. (2013) examined a positive and significant link between capital adequacy ratio and financial performance indicated by ROA and ROE. Li and Zou(2014) examined a significant impact of NPL on the financial performance while an insignificant effect of capital adequacy ratio on ROA and ROE. Fredrick (2012) assessed strong impact of CAMEL parameters on the profitability indicated

by ROE. He observed that capital adequacy, asset quality, management efficiency and liquidity have a weak association with financial performance whereas earning ability variable is found to have a strong relationship with financial performance.

Chapter 5: Conclusion and Recommendations

5.1 Conclusion

The empirical findings state that credit risk management measures have statistically significant impact on the financial performance of the banks under study. Specifically, management quality and earnings ability parameters are found to be significant variables to affect the profitability of the banks whereas capital adequacy ratio and liquidity measures are found to be statistically insignificant. Furthermore as per the results, ROA (profitability) is positively related to CAR, Management, Earnings and liquidity parameters. According to findings of the study, capital adequacy ratio is positively related to ROA states that banks are maintaining adequate amount of capital funds to absorb adverse situations and remain solvent. Management parameter is found to be highly significant and positively correlated to profitability that reflects management capability in performance of the banks efficiently and effectively. Earnings ability of the banks is found to be positively related to profitability that reflects higher the capability of the banks to earn consistently and grow in the future would tend to increase its profitability. Lastly, liquidity measure indicates a positive association with ROA which means higher liquidity position of the banks will lead to higher profitability.

Results of the present research suggest that the independent variables of the sampled public sector banks significantly impact the profitability during the study period. On the basis of empirical findings, it can be said that credit risk management is a vital parameter in determining the banking performance. Banks should be persistent in developing and revising its credit risk management practices or systems according to changing risk

exposures so that default risk in lending could be minimized and ultimate aim of attaining higher profitability is achieved.

5.2 Recommendations

The following recommendation has been provided on the basis of this study:

- First of all, the Reserve Bank of India should categorize the Banks in three categories on the basis of their last five years performance (Category A banks = High performer, Category B banks = medium performer, Category C banks = low performer) and then issue guidelines regarding their CAR accordingly.
- The registration of new Bank should not be allowed for the banks which cannot fulfill the requirements of Reserve Bank of India.
- The Commercial Banks in Pakistan need to adopt the appropriate credit risk policies and branch managers in banks need to put more effort on reduction of loans losses.
- Business loans should be granted to those customers whose business plan is competent and capable to repay interest and principal amount.
- Top level management should periodically upgrade their risk management system.

Chapter 6: LIMITATIONS AND FUTURE SCOPE OF STUDY

6.1 Limitations of the Study

The one of the main limitation was the limited time allotted for research, that why only ten Indian commercial banks financial data can be collected for time period of 2014 to 2021. In

case, more time allowed for research study than there would be changes of obtaining better results. One other limitation was that some banks had not properly disclose related variables or do not publish them on annual report, due to which problem occurred in collection of research data. And the research is valid only for the time period 2014 to 2021. In any other case the results may vary depending on the changes in the variables.

6.2 Future Scope of Study

As the research is valid for the time period 2014 to 2021 the future researchers can get opportunity for the study of the time period after 2021. Moreover due to the ongoing pandemic the results of the study may have been affected. And post pandemic results may vary from the same.

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SIP PROGRESS REPORT

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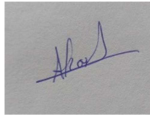
Name of the Student: Akash Sharma

Name of the faculty guide: Dr. Faisal Ahmed

Meeting-1

Date of Meeting: May 4, 2021

Topic/Work Discussed: Basics of Research, Topic of the research.



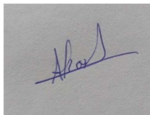
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Meeting-2

Date of Meeting: May 6, 2021

Topic/Work Discussed: Literature Review and research gap.



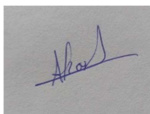
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Meeting-3

Date of Meeting: May 21, 2021

Topic/Work Discussed: Identification of factors and collection of data.



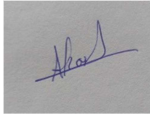
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Meeting-4

Date of Meeting: June 22, 2021

Topic/Work Discussed: Discussion on the Results/findings and recommendations of the research.



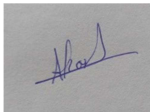
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Meeting-5

Date of Meeting: July 14, 2021

Topic/Work Discussed: Approval of research, Urkund report and final changes.



Signature of Student

Signature of Faculty Guide



Requisite Progress Report

1 message

faisal <faisal@fsm.ac.in>
To: Akash Sharma <143007@fsm.ac.in>







Fri, 16 Jul 2021 at 19:20

143007	Akash Shaarma	VSIP Progress Report: Requisite meetings held with the with Faculty Guide: Yes (Pls submit this mail along with the details of Meeting days mentioned in word
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