

Credit Risk Management and Bank Performance: Analyzing Aftermath through Case Study Approach

Dr. Shweta Gupta

Associate Professor
Department of Commerce
IIS (Deemed to be University),
SFS, Gurukul Marg, Mansarovar, Jaipur
Email id: shweta.gupta@iisuniv.ac.in

Dr. Monty Kanodia

Senior Assistant Professor
Department of Commerce
IIS (Deemed to be University)
SFS, Gurukul Marg, Mansarovar, Jaipur
Email id: monty.kanodia@iisuniv.ac.in

Abstract

The stability and growth of a bank depend on the efficient management of credit risk associated with its operations. In this study, credit risk management has been examined to determine whether Indian banks perform better economically as a result of managing their credit through the case study approach. In this instance, liabilities and NPAs represent independent variables with respect to credit risk management while ROA has been taken into account when considering the dependent variable, for which the impact has been determined through correlation and regression analysis. The observations of the results indicate that credit risk management has a significant bearing on bank performance when represented by liabilities but not in the case of NPA. It has been recommended to monitor and control risks associated with granting credit by the banks, so that the smooth functioning of banks would not be hampered and their long-term stability, profitability and growth can be ensured.

Keywords : Credit risk, Credit Risk Management, Banks, Non-performing assets, Liabilities, ROA

Introduction

The economy is becoming more unstable every day, which is resulting in an increase in risk management. Most companies face significant challenges (Ali and Wan, 2016) that stem from financial risks, especially on the stock market where companies' valuations are determined by the market (Ali and Oudat, 2020). As a result of today's risk situation, administrators seek mitigation measures. It is possible to gain a better understanding of future trade balances and future prospects by evaluating different investment methods using a diversified understanding of risk (Samimi et al., 2020). The process of risk assessment comprises of the determination, evaluation, consent, and reduction of uncertainty for investment decisions. An investor employs risk management when he or she identifies the potential losses in his or her investments and attempts to understand how these risks affect financial institutions' results, and investigates them reasonably (e.g.

banks). In order to calculate this risk, risk management must be taken into account (Mohammadnazar and Samimi 2019). Investing in equity securities is based on recognizing the bank's financial performance. The purpose of this is to find the bank's fortes and use them to make informed investment decisions (Almagtome and Abbas, 2020). Risks associated with credit extend are the possibility of a return on investment or loan that is less than anticipated (Conford, 2000). A credit risk is the risk of losing money when credit customers fail to pay their debts on time or in full (Coyle, 2000). Financial performance of loans is not the only factor that is impacted by credit risks but it also has wide-reaching ramifications (Kibor, 2015). Credit risk is also one of the greatest risks (Asfaw and Veni, 2015).

There are several markets where the banks operate but good risk management is difficult due to numerous obstacles. Ultimately, it reduces the performance and profitability of banks, which further results in settlement distress and bank failures (Berger and Curista, 2009; Adewunmi, 2021). It is believed that a nation's banking system is its backbone, without which the economy would suffer adversely. Moreover, due to the complex and intricate environment in which modern banking system operates, its smooth functioning becomes all the more vital in ensuring the country's growth (Singh, 2015). It is in the best interest of every banking institution to maintain firmness and increase their progression by achieving profitability. As part of their operating income, loans accounts form the majority of the bank's assets (Ugiraise, 2013). Risks such as credit risk are inherent to banks. Credit risk occurs when a borrower fails to meet his or her obligations. A pre-commitment contract may not be fulfilled or an unwillingness to comply with it may result in such risks (Bizuayehu, 2015). Due to the fact that banks grant credit facilities alongside the acceptance of deposits, they are inevitably exposed to credit risk (Muriithi et al. 2016). Identifying, measuring, monitoring, and controlling credit risks are vital tasks for commercial banks, as well as making sure they are adequately financed to bear these risks (Bhattarai, 2016). The inefficiency of management can also contribute to credit risk in banks. Non-performing loans increase when management deficiencies cause liquidity to

decline (Mwaurah, 2013). Nevertheless, effective credit management is essential to the stability and profitability of financial institutions in spite of deteriorating credit quality. (Gatuhu, 2013).

Banks have become increasingly dependent on credit risk management in modern banking systems. All aspects of banking business operations carry some level of risk. (Kattel, 2016). The credit risk measurement concept serves as a preventative approach to reduce credit defaults among banks (Alshatti, 2015). Thus, using liabilities and non-performing assets, this study examines how credit risk management affects the financial performance of Indian banks.

Review of Literature

One of the study indicates that credit risk management significantly impacts commercial banks' financial performance. The study further asserts that the return on equity of the company increases when non-performing loans are reduced as a percentage of the loan and advance provisions (Yimca et al., 2015). In analyzing credit risk, the CAMEL model may be a useful proxy. The CAMEL indicators were also found to be linked to the performance of commercial banks as an indirect measure of credit risk management (Githaiga, 2015). Prior to lending to customers, banks need to establish sound credit estimation methods so they can manage credit risk effectively, and the credit provision system should be strictly monitored, including information about the customer, the purpose of the loan, and their ability to repay it; maintaining an adequate management system and working under a secure credit granting process (Iftikhar, 2016). Nonperforming loans were also found to influence banks' performance negatively, which could lead to financial crisis and lack of liquidity. Thus, based on the results, the enhancement in managing credit risks has been recommended in order to increase their profits as well as maintain a qualitative asset portfolio (Serwadda, 2018). Bank performance has also been shown to be significantly impacted by credit risk parameters, for which a rigorous and robust credit policy should be developed by deposit money banks to enable them to assess customers' creditworthiness effectively. Credit risk measurements, identification, and

control should also be implemented by regulatory agencies (Olugboye et al., 2018; Nwude and Okeke, 2018). Investors and savers can gain more confidence in banks when their credit management strategies are sound, increasing the amount of money available for loans and advances, thereby increasing bank profitability. Banks' total loans and advances are not significantly impacted by credit risk management. In order to ensure that only creditworthy borrowers can borrow funds, banks need to follow their credit appraisal policies strictly. Credit ratings of decent to high borrowers should be considered by banks when allocating funds (Taiwo et al., 2017). In light of the fact that performance is affected by credit risk, credit risk management is of increasing importance. Nonperforming loans should be monitored by banks as part of their credit risk management procedures (Ekinici and Poyraz, 2019). As the Bank's operating environment continues to change, their risk management practices need to be continually evaluated to ensure they are still relevant (Catherine, 2020). Contrary to beliefs, a study indicated that Capital Adequacy Ratio (CAR), Non-performing loans (NPL), growth of banks, liquidity and leverage affect the performance of banks. Nonetheless, size of the business and effectiveness of management are the only factors that hold association with performance of the banks financially. Thus, a more efficient credit risk management can strengthen the bank's financial performance (Wijekoon and Jameel, 2021). A scientific approach to credit risk management is necessary for commercial banks, developing effective credit analysis and management skills, and ensure that their financial performance isn't negatively affected by high non-performing loans, in order to secure their assets to the greatest extent possible (Bhattarai, 2019, Chhetri, 2021). According to one study, banks are experiencing declining profitability because of the increase in non-performing assets. Nevertheless, public sector commercial banks are more likely to benefit from a capital adequacy ratio than private sector banks (Ghosh and Mondal, 2022). An effective framework for managing credit risk would result in a satisfactory financial performance. As part of their credit issuance strategies, banks need to establish appropriate methods for credit appraisal. It is imperative to build a system that assesses the customer's creditworthiness

based on their ability to repay their debt and their loyalty to the company. Moreover, banks should develop robust credit risk assessment practices to mitigate credit risk to the maximum extent possible (Matama, 2022). By enforcing regulations and guidelines, the Central Bank ensures that banks adhere to the regulations and guidelines it issues, thereby limiting credit risk. It is imperative to adhere with assessing customer data and information in order to determine what the customer's condition is. A good understanding of the credit risks associated with this process will benefit the credit risk management (Hasoon and Nabi, 2022). To monitor the country's financial risks, BSL has established a Financial Policy Committee (FPC), under which there is a continued effort to deepen financial stability research. In this regard, key objectives of the Central Bank like pricing and stability in finance have been acknowledged greatly which is why it has been considered futuristic (Jackson and Tamuke, 2022).

The literature review carried out represents almost all the studies of international banks and no recent study has been focused upon any Indian bank or Indian banking sector. Thus, this study has been intended to be carried out to conduct a case study on HDFC bank in order to gauge bank's financial performance in relation to credit risk management.

Research Methodology

The article uses a quantitative method to research. The best research method is determined to be a case study. According to the source Statista, 2022 HDFC bank is leading the Indian private bank sector with total assets over 20 trillion Indian rupees. (Statista Research Department, 2022). Therefore, author conducted a case study taking HDFC bank as a sample for the current study. The time period taken for the study is five years counting from the year 2018 to 2022. Descriptive research has been used to obtain in-depth information, whereas explanatory research has been used to investigate the subject phenomena. Financial records, and annual reports, served as the secondary sources of data. Purpose sampling, a part of non-probability method was used. Data is processed using SPSS version 22 where central tendency is measured and E-views statistical tool through which the correlation and ordinary

least square (OLS) regression is implied. ROA is the main dependent performance metric in use. The ROA reveals how well management uses its assets to produce profits. It gauges the bank's profitability in relation to its assets, Credit risk management (non-performing assets, and liabilities) are the independent variables.

Data Analysis & Interpretation

Results from table I shows central tendency that signifies non-performing assets have an average of 0.37 and a S.D. of 0.03; loans and advances (Liabilities) have an average of 4.80 and a S.D. of 0.10; and return on assets have an average of 1.7 and a S.D. of 0.11.

Table - I Descriptive Statistics

	Min	Max	Average	Std. Deviation (S.D.)
Liabilities	4.66	4.93	4.8035	.10411
NPA	.32	.40	.3740	.03435
ROA	1.57	1.83	1.7000	.11446

Table II demonstrates the connection between financial performance (ROA) and credit risk management (provision of loss & NPA). It demonstrates value of R to be -0.95, which indicates that there is a strong correlation/association between provisions of loss and ROA. Given that the probability-value is $0.012 < 0.05$ ($p < 0.05$), this suggests that

there is a significant association between the two variables. Additionally, it also indicates that non-performing assets (NPA) is negatively correlated $r = -0.714$ with financial performance of HDFC bank, supporting the notion that there is an insignificant link between the two.

Table II Pearson Correlation coefficient

		ROA	Liabilities	NPA
ROA	R	1	-.954	.769
	Prob. Value		.012	.128
Liabilities	R	-.954	1	-.714
	Prob. Value	.012		.176
NPA	R	.769	-.714	1
	Prob. Value	.128	.176	

Table III shows that the output of Ordinary Least Square is statistically significant at 5% level of significance as f-statistics prob. value is lesser than 0.05 which depicts the model is good fit. Along with this, model fitness measured

through R square which is a coefficient determination signifies how much variance is explained in the model. In the present study, 72% of variance is explained by liabilities and net performing assets in the model. (Refer table III).

Table III Ordinary Least Regression Analysis

Variable	Coefficient	T-statistics	Prob. (Sig value)
NPA	0.60	0.65	0.57
Liability	1.02	12.18	0.01
C	0.11	-4.39	0.00
R-Square		0.72	
F-Statistics		0.00	
Durbin Watson		0.35	

$$Y = -0.11 + 0.60 (\text{NPA}) + 1.02 (\text{Liabilities})$$

The regression equation revealed that holding liabilities and non-performing assets to zero, ROA would be 0.11, 1 % rise in liabilities would lead to a boost in the bank's ROA by 1.02, and 1 % rise in NPA would result in an increase in the bank's ROA of 0.60. The author used 95% confidence interval with 5% probability (sig.) value which implies that there is a significant influence of liability on ROA as p-value is less than 5% or 0.05 whereas results found the insignificant influence of non-performing assets (NPA) on ROA as its p-value is greater than 5%.

Conclusion

For a banking system to operate effectively and efficiently, credit risk must be primarily taken into account and managed robustly in order to maintain profitability and growth in long term. This study is based upon case study approach in order to analyze how credit risk management; as represented by liabilities and non-performing assets, affects Indian banks' ROA. It has been observed from the results that the HDFC bank's financial performance has been heavily influenced by its liabilities which was the variable not taken into account in the previous studies while in contrast, it was found that NPA was not significantly associated with the bank's financial performance. This result is inconsistent with Serwadda (2018); Adekunle et al. (2015); Bhattarai (2019); Nwude and Okeke (2018); Iftikhar (2016) which represented NPA's substantial influence on the financial performance of banks. Thus, it has been concluded that managing credit risk pertaining to diverse variables holds different level of importance and it is required to be taken care of by implementing robust credit monitoring and control strategies. Also, the proper scrutiny of the borrowers should be carried out to check their ability to pay back based on their competent background or business plan. Moreover, the risk management system should be upgraded with the changing environment of business and regular monitoring and supervision should be emphasized while extending the lending facility. In order to enhance profitability, credit risk management decisions should be made by banks through robustly developed credit risk management committees.

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