NOLEGEIN Journal of
Financial Planning & Management

ISSN: 2581-4087
Volume 6, Issue 2, 2023
DOI (Journal): 10.37591/NJFPM

http://mbajournals.in/index.php/JoFPM/index

Research NJFPM

Parameterizing Credit Risk Management System in Commercial Banks of India

Shweta Shrivastava[1,*], Niyati Anand[2]

Abstract

Credit risk is the possibility that a financial institution may lose money if a borrower's circumstances worsen to the degree where an asset's value (including off-balance-sheet assets) is reduced or eliminated. The goal of this work is to make clear the challenges caused by past-due loans so that they can be utilized as a further tool to comprehend the elements of commercial banks' (CBs') credit risk management (CRM) systems in developing economies. This was accomplished by utilizing data from CBs and other important management figures who deal with credit management, both primary (interviews) and secondary (a number of pertinent papers). The analysis demonstrated that credit risk may be controlled and reduced when strong strategic methods are adopted. This suggests that for a CRM system to be effective, a bank's strategy must be taken into account. There is evidence that effective CBs drive economic growth, but ineffective financial institutions hinder economic growth and worsen poverty Risks faced by commercial banks can be divided into three categories: financial [of which credit risk (CR) is a component], operational, and strategic. The performance of CBs is affected in various ways by these hazards.

Keywords: Credit risk management, commercial banks, borrower, loan, CRM

INTRODUCTION

Financial institutions (FIs) are very crucial in any economy. Commercial banks (CBs) are essential FIs and major sources of financial data for the economy. They even play a crucial part in emerging markets when borrowers lack access to finance markets. According to Ladley (2013), [1] the amount and magnitude of the damage brought on by CR are so great as to induce bank failures. Over time, major bank difficulties have increased in both rich and emerging economies. One of the key causes of banking issues has been recognized as credit issues, particularly a lack of strength in credit risk management (CRM).

As loans typically make up a sizable amount of a bank's equity, they account for a major portion of credit risk. Therefore, when there is a modest decline in loan quality, the banking industry is likely to have difficulties. The information processing system lies at the heart of poor loan quality. According to Laeven (2014), [2] developing nations are where these issues are most severe.

The issue frequently surfaces throughout the loan application process and worsens during the loan approval, monitoring, and controlling phases, especially when CRM standards in terms of credit processing policies and techniques are either nonexistent, ineffective, or insufficient [3].

***Author for Correspondence**
Shweta Shrivastava
E-mail: shwetashrivastava612@gmail.com

[1]Assistant Professor, Gyan Ganga College of Technology Jabalpur, Madhya Pradesh, India
[2]Associate Professor, Gyan Ganga Institute of Technology & Sciences, Jabalpur, Madhya Pradesh, India

Received Date: October 10, 2023
Accepted Date: October 22, 2023
Published Date: November 02, 2023

Citation: Shweta Shrivastava, Niyati Anand. Parameterizing Credit Risk Management System in Commercial Banks of India. NOLEGEIN Journal of Financial Planning & Management. 2023; 6(2): 1–7p.

© MBA Journals 2023. All Rights Reserved

But loan operations have been a contentious and challenging issue for the majority of the transition countries. This is due to the fact that, although business firms sign about a shortage of credit and the excessively high requirements set by banks, CBs have endured significant losses due to subprime lending. It has been discovered that commercial banks must have a successful CRM system in place in order to decrease loan losses and related credit risks.

In order to prevent moral hazard and adverse selection, banks must have a mechanism for evaluating default risk that is unknown to them ex-ante and that can change ex-post. Due to the knowledge gap between lenders and borrowers, this is essential [4].

Molla (2018) argues that CRM is crucial for maximizing banks' performance. This study focuses on understanding and evaluating the commercial banks' credit risk management systems in light of the importance of this issue [16].

LITERATURE REVIEW

As opined resources provided might either be monetary (like loans) or tangible (like consumer credit) in nature. Banks, building societies, credit unions, and finance businesses are examples of lenders (also known as credit providers) that grant credit to borrowers on the condition that they guarantee timely payments by a set date. Studies by Liberman (2016), [15] have shown that there are several types of credit, including bank credit, consumer credit, foreign credit, public credit, investment credit, rent-to-own, and mortgages. Different factors influence why people and businesses access credit [14].

that banks make money when they extend loans to customers. Giving credit to customers is one of the banks' most important operations, who also state that it is one of their biggest assets. It has the capacity to produce enormous profit.

CREDIT RISKMANAGEMENT

Reducing the risks related to public acceptance is the primary goal of credit risk management Typically, loans are the major and most obvious source of credit risk for banks. There are other types of credit risk, meanwhile, that are present throughout bank operations, such as in the banking book and trading book, which can show up on and off the balance sheet. Commercial banks are now more susceptible to credit risk levels that are a little bit higher

These financial tools include swaps, bonds, trade financing, shares, foreign exchange transactions, and more. that risks are various forms of dangers brought on by people, organizations, technology, the environment, and politics. In contrast, risk management entails using every tool at one's disposal to lessen or avert a potential hazard (McIlwraith, 2016).

Management is responsible for establishing a credit supervision team to make sure that credit is properly kept and administered. Risk management should be one of an organization's main priorities, Risk management entails identifying, quantifying, aggregating, planning, managing, and monitoring the risk. A firm should have effective internal rating systems and procedures for determining its overall exposure to credit risk

In order to effectively manage credit risk, a suitable environment must be created, a sound credit-granting process must be followed, and a proper credit administration system must be maintained, including an effective monitoring system and enough controls over credit risk .The responsibility for ensuring suitable and understandable Credit Risk Management policies rests with top management. They clearly explain the scope and distribution of bank credit facilities as well as the method used to manage a credit portfolio.

As a result, all parties involved in credit risk management are required to understand the standards, which should be effectively disseminated throughout the business. The financial organization will benefit from better application of those rules as a result. A successful system makes sure that borrower

© MBA Journals 2023. All Rights Reserved

loan payback is essential, which lowers the quantity of loan losses and increases the bank's long-term performance. Borrower screening has always been used as a strategic activity [7].

(Philippon, 2015) in the banking industry in terms of credit evaluation. Effective screening requires the gathering of trustworthy information from potential borrowers. Numbers can be assigned to borrower attributes based on qualitative model evaluation, and the sum of the values can be compared to a threshold [6].

"Credit scoring" is the word for this evaluation. The method of operation significantly lessens potential biases and prejudicial judgments in addition to processing expenses. Quantitative models, however, allow for the numerical determination of which components are essential in explaining default risk. The models assess each factor's relative relevance, enhance the price of default risk, enhance the ability to weed out unqualified loan applicants, and enhance the ability to calculate any reserve required to cover predicted future loan losses (Paseda, 2017) [5].

METHODOLOGY

The purpose of both organized and unstructured questionnaires was to gather data on credit risk. This is due to the fact that we have to get information directly from the source. 285 individuals from 23 commercial banks were surveyed for their opinions. The completed surveys were given to the designated banks' credit managers or loan administrators. Figure 1 these individuals were chosen because they are active in credit policy formulation, credit policy implementation, and credit policy allocation [8].

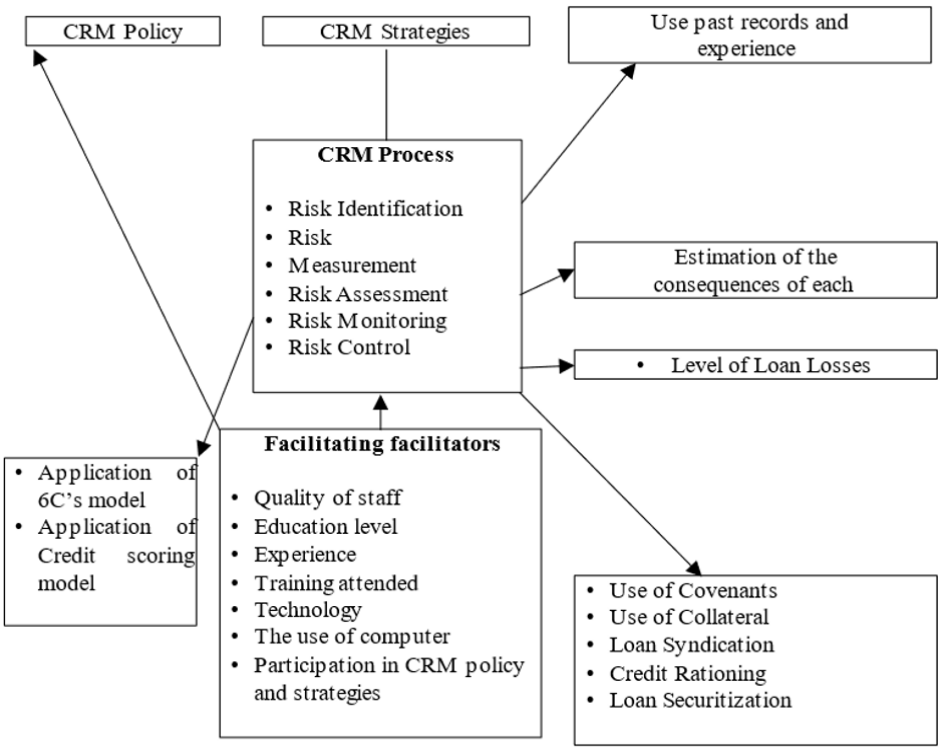


Figure 1. Selection Criteria for Survey Participants

THE REGRESSION MODEL

A model was designed to assess credit risk management system of commercial banks. The regression equation takes the form:

A model was designed to assess the credit risk management system of commercial banks.

Regression equation is:

© MBA Journals 2023. All Rights Reserved

$$Y=a+b1X1+b2X2+b3X3+b4X4+b5X5+b6X6+b7X7+\varepsilon$$

Where; Y is the Minimization of credit costs(MCRE) X1is Elimination of bad customers (EBAD)
X2is State 0f the economy (ECON) X3is Quality of staff (STAFF)
X4is Credit appraisal (APPR)
X5is Financial stability of the customer (FSTA) X6is Collateral (COLA)
X7is Credit manual (CREM) a is the Constant term b1to b7are Coefficients.
Ɛis Error margin

Dependent Variable
Minimization of credit costs (MCRE)

The regression model arising from the data above is:

$$Y=5.342+0.634X1-0.102X2+0.146X3+0.304X4+0.010X5+0.603X6+0.491X7+\varepsilon$$

Table 1 displays the findings of the study's coefficient estimations after setting our confidence interval level at 95.0%. By having an R-Square of 0.776, the model successfully predicted 77.6% of the distribution. This shows that a degree of appropriateness was reached as a result of the predictive factors' reasonable estimation [9].

Elimination of bad customers (EBAD) coefficient is 0.634 This demonstrates that the Minimization of Credit Costs (MCRE) is positively impacted by a sizable portion of the Elimination of Bad Customers (EBAD). For the decline in credit fees (MCRE), the coefficient of the status of the economy (ECON) is determined to be negative (-0.102). This suggests that reducing credit prices is negatively impacted by the state of the economy (ECON) [10].

For Quality of staff (STAFF), the study produced a coefficient value of 0.146. This implies that STAFF has a favorable impact on MRE. According to the findings of the inquiry, the independent variable (personnel) had a highly significant value of 0.000, indicating that the quality of the personnel has a stronger propensity to reduce credit risk. The Credit Appraisal (APPR) coefficient for the Minimization of Credit Costs (MCRE) is 0.304.

Accordingly, assuming all other variables remain constant, we should anticipate a 0.49 unit rise in minimization of credit expenses (MCRE) for every unit increase in credit appraisal (APPR). The findings revealed an association between APPR and MCRE with a high statistical significance level of 0.001.This shows that the Credit Appraisal (APPR) variable has a great capacity to reduce credit risk.

This finding supports earlier work by Taiwo et al. (2017). The study's findings indicate that FSTA is not a reliable predictor of MCRE. The FSTA p-value is 0.895 [13].

Credit manual (CREM) and collateral (COLA) both have beneficial benefits in lowering credit risk. They both provided results with a high statistical significance level of 0.000, demonstrating the great predictive capacity of these independent variables for the outcome, or minimization of credit costs (MCRE).

Instead of being a stringent regulatory endeavor, credit risk management for the banking sector should be proactive, strategic, and business-driven control. However, it involves implementing policies that create an environment where creditors and borrowers can make better investment decisions.

The bank's mechanism for allocating the appropriate sum of money and ensuring loan repayment helps to create the perception of balance. The plans, which could serve as the banks' guide when deciding how much credit to give customers, can resemble credit policy manuals. The credit instruction manual promotes credit limitations, the creation of credit periods, as well as credit ratings of clients.

© MBA Journals 2023. All Rights Reserved

Credit appraisal makes sure that a lender evaluates the technical probability, economic viability, and bankability of the loan, as well as the borrower's creditworthiness.

It analyzes if the borrower is likely and responsible to return the loan in full within the allotted timeframe or not. This would help to weed out bad borrowers who would accept the loan but be unable to pay back the whole amount as agreed. The bank must identify and get rid of bad clients who exhibit low-value behaviors, actions, and activities that increase credit risk. Despite the lower credit risk, the customer's financial stability is still quite important.

Customers facing trouble financially are more likely to default on loans (Olowa and Olowa, 2017) [12]. In order to safeguard the loan in the event of default, banks require collateral, which can be provided by the borrower in the form of a piece of property or another asset. Homes or automobiles can be used as collateral, and they are considered safe.

Cars and houses can be pledged as collateral, and these items are protected. Acknowledgments that are secured by collateral typically offer better terms, cheaper interest rates, and greater loan amounts than unsecured loans. This initiative relieves the client of such higher interests, and therefore makes.

They were pressured to pay. Additionally, because the lender had the collateral confiscated, the borrower would scramble to settle the loan in order to regain possession of the asset.

CONCLUSIONS

The study's conclusions demonstrated that the establishment of stronger credit management procedures reduces credit risks. To guarantee that funds allocated to borrowers are monitored and recovered, banks should have credit control methods and activities structured as a unit or department in addition to having strong credit policy standards. The research's findings indicated that if improved credit management measures are developed, credit risks are reduced. Banks should have credit control procedures and actions organized as a unit or department in addition to having strict credit policy criteria to ensure that monies provided to borrowers are tracked and recovered. As a regular, low-key action in credit risk management, the department head should actively participate in credit risk assessment (Dlugosch et al., 2018) [11]. The fundamental responsibilities of a credit department include assessing credit risk, setting credit terms and limits, monitoring and controlling debt, maintaining an accurate and up-to-date customer master file, and collecting payments from borrowers.

However, if his credit ratings are lower than anticipated, the credit officer can propose strategies to raise them, potentially lowering financing rates. The most important risk is credit risk, which needs to be managed carefully because it could have a significant impact on the bank's performance.

Recommendations

The banking sector should encourage the use of a credit manual as a basis for sifting out bad customers. This research suggests that the banking sector should adopt the use of more hale and hearty practices in managing risk like credit insurance. In the bid to reduce credit risk, the banks are recommended to practice the use of credit derivatives. Credit derivatives present a distinctive opportunity for credit administrators to add a new dimension to their efforts to manage risks.

Through the use of credit derivatives, a lender or borrower can transfer the default risk of a loan to a party other than the lender or debt holder. In order to determine a borrower's ability to repay a loan, banks are also required to place a strong emphasis on credit evaluation when analyzing loan applications.

The research findings pointed out that credit risks are minimized whereby enhanced credit control policies are in place in addition to having solid guidelines for credit policies, banks should have credit

© MBA Journals 2023. All Rights Reserved

control measures and actions organized as a unit or department to ensure that Funds disbursed to borrowers are monitored and recouped.

The research's findings indicated that if improved credit management measures are developed, credit risks are reduced. To ensure that funds allocated to borrowers are tracked and recovered, banks should have credit control methods and actions organized as a unit or department in addition to having strong credit policy standards. As a routine, modest practice in managing credit risk, the departmental head should be fully involved in credit risk assessment (Dlugosch et al., 2018) [11]. The fundamental responsibilities of a credit department include assessing credit risk, setting credit terms and limits, monitoring and controlling debt, maintaining an accurate and up-to-date customer master file, and collecting payments from borrowers.

However, if his credit ratings are lower than anticipated, the credit officer can propose strategies to raise them, potentially lowering financing rates. The most important risk is credit risk, which needs to be managed carefully because it could have a significant impact on the bank's performance.

Recommendations

The banking sector should encourage the use of a credit manual as a basis for sifting out bad customers. This research suggests that the banking sector should adopt the use of more hale and hearty practices in managing risk like credit insurance. In the bid to reduce credit risk, the banks are recommended to practice the use of credit derivatives. Credit derivatives present a distinctive opportunity for credit administrators to add a new dimension to their efforts to manage risks.

Through the use of credit derivatives, a lender or borrower can transfer the default risk of a loan to a party other than the lender or debt holder. In order to determine a borrower's ability to repay a loan, banks are also required to place a strong emphasis on credit evaluation when analyzing loan applications.

REFERENCES

1. Ladley D. Contagion and risk-sharing on the inter-bank market. Journal of Economic Dynamics and Control. 2013 Jul 1;37(7):1384–400.
2. BHASIN, M. L. 2015. Menace of frauds in the Indian banking industry: an empirical study.
3. Afriyie SO, Yusheng K, Kaodui L, Caesar AE, Owusu-Akomeah M. Credit risk management system of commercial banks: an analysis of the process.
4. Laeven ML, Ratnovski ML, Tong MH. Bank size and systemic risk. International Monetary Fund; 2014 May 8.
5. Paseda O. The debt maturity structure of Nigerian Quoted Firms. Available at SSRN 2916729. 2017.
6. Philippon T. Has the US finance industry become less efficient? On the theory and measurement of financial intermediation. American Economic Review. 2015 Apr 1;105(4):1408–38.
7. Kalunda, E., nduku, B. & kabiru, J. 2012. Pharmaceutical Manufacturing Companies in Kenya and Their Credit Risk Management Practices. Research Journal of Finance and Accounting, 3, 159–167.
8. Kirschenmann, K. 2016. Credit rationing in small firm-bank relationships. Journal of financial Intermediation, 26, 68–99.
9. Olowa OA, Olowa OW. Rice farmer and capital formation: A case study of rice farmer's credit cooperative in Itoikin, Ikosi-Ejirin LCDA, Lagos State. International Journal of Sustainable Development & World Policy. 2017;6(1):1-8.
10. Maroro, R. K., Kamau, J. G. & Koima, J. Effect of asset restructuring on return on equity of financially distressed commercial banks

© MBA Journals 2023. All Rights Reserved

11. Khan F, Dlugosch M, Liu X, Banwell MG. The palladium-catalyzed Ullmann cross-coupling reaction: a modern variant on a time-honored process. Accounts of Chemical Research. 2018 Jul 16;51(8):1784–95.
12. Jégou S, Hoang DA, Salmon T, Williams P, Oluwa S, Vrigneau C, Doco T, Marchal R. Effect of grape juice press fractioning on polysaccharide and oligosaccharide compositions of Pinot meunier and Chardonnay Champagne base wines. Food Chemistry. 2017 Oct 1;232:49–59.
13. Taiwo AM, Oyeleye OF, Majekodunmi BJ, Anuobi VE, Afolabi SA, Idowu OE, Ojekunle ZO, Taiwo OT. Evaluating the health risk of metals (Zn, Cr, cd, Ni, Pb) in staple foods from Lagos and Ogun states, southwestern Nigeria. Environmental monitoring and assessment. 2019 Mar;
14. Donkor ES, Tetteh-Quarcoo PB, Nartey P, Agyeman IO. Self-medication practices with antibiotics among tertiary level students in Accra, Ghana: a cross-sectional study. International journal of environmental research and public health. 2012 Oct;9(10):3519–29
15. Liberman MC, Epstein MJ, Cleveland SS, Wang H, Maison SF. Toward a differential diagnosis of hidden hearing loss in humans. PloS one. 2016 Sep 12;11(9):e0162726.
16. Ali N, Perveen R, Rahman S, Mahmood S, Rahman S, Islam S, Haque T, Sumon AH, Kathak RR, Molla NH, Islam F. Prevalence of hyperuricemia and the relationship between serum uric acid and obesity: a study on Bangladeshi adults. PloS one. 2018 Nov 1;13(11):e0206850.

© MBA Journals 2023. All Rights Reserved