Anusandhanvallari
Vol 2024, No.1
November 2024
ISSN 2229-3388

Determinants of Credit Risk Management System Design in Selected Private Sector Banks in India

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Abstract: In the banking industry, asset quality is critical for financial stability and sustainable growth and is a precondition for credit risk management. The aim of the given study is to understand the factors which affect the design of credit risk management system of the selected private sector banks in India. It considers elements related to the external business environment, financial resources, technological infrastructure, managerial commitment, regulations and organisational structure. The current study is descriptive and analytical research method, applying a structured questionnaire to get primary data from respondents of banking professionals who are purposive sampling as 200 respondents. Analysis of the data is suggested using descriptive statistics, correlation and multiple regression. The research is aimed at discovering the factors influencing the system design in credit risk management and giving recommendations on how to enhance the process of risk assessment, monitoring and control.

Keywords: Credit Risk Management, Private Sector Banks, System Design, Technological Infrastructure, Managerial Commitment, Regulatory Compliance, India.

1. Introduction

The banking sector contributes significantly to the economic development by mobilizing saving, enabling credit allocation, enhancing business investment and financial inclusion. When banks are involved in lending, however, they face various risks, of which credit risk is an important one. Creditors' risk is the risk that a borrower or a counterparty will not honour their contractual obligations to creditors, thus causing a loss of revenue for a lender. Good control of credit risk is thus also vital for asset quality and profitability, capital adequacy, and the stability of the banking system. Since banking operations are increasingly becoming complex, methods of credit risk management have transcended loan appraisal, the gathering and assessment of collateral and other traditional tasks to encompass techniques of integrated risk assessment, credit monitoring, portfolio management techniques, information systems, and governance techniques.

A credit risk management system is the set of policies, organizational structure, procedures, analytical resources, information technology and internal control to identify, measure, evaluate, monitor and mitigate credit risk within a bank. It is shaped by how credit-related duties are shared, whether appropriate lending practices will be adopted, on the analysis of the borrower information, and how new risks can be identified and put to use. Typically, a well-designed system also includes the ability to perform credit appraisals, classify borrowers based on risk factors, use credit-scoring algorithms, set exposure limits, evaluate borrower collateral, a hierarchy of decision makers, diversification of the portfolio, stress testing, and early-warning systems. Arora and Kumar (2014a) highlighted the significance of exploring the credit risk management from prime dimensions such as organisational arrangements, policies and strategies, and operations systems. This approach implies a view of

credit risk management system design, which considers it as an organizational capability instead of a system of single lending practices.

The competition for financial services in the Indian market is growing, with ever-changing expectations of private sector customers, technological advances, changing regulatory demands, and credit demand changing all the time. In the context of these institutions, the challenge is to ensure sound risk, while expanding lending activities. Their credit risk management system should go hand in hand with the ability to accurately assess borrowers, promptly detect default risks, manage the credit portfolio properly and enforce consistent credit policies to minimize risks. The research done on Indian banks has found that a number of credit risk factors, both bank characteristics and external, affect credit risk. For example, Gulati et al (2019) focused their analysis on Indian banking sector and pointed various factors such as profitability, bank size, lending concentration, and macroeconomic factors as important credit risk determinants in the Indian banking sector. Further, Brahmaiah (2022) studied the practice of handling credit risk in the Indian commercial banks and found the comparison between the public sector and private sector banks in terms of the handling of credit risk and financial results.

With all these being significant factors, credit risk and credit risk management system design determinants are conceptually different. Credit risk encompasses how much a bank is exposed to or how much a bank might lose, while system design is the institutional framework that enables the assessment and management of credit risk. Even a fairly advanced risk management program in a bank could lead to heavy credit losses in adverse economic conditions. Favorable economic conditions can boost low default rates for a time even if there is weakness in the system. The interest of the bank should therefore go beyond analysing NPA or profitability or the ratio of capital adequacy to understand their credit risk management structure.

Credit risk systems may have multiple interacting factors that influence the design. Organisational aspects like the size of the bank, organisational complexity and centralisation of credit decisions may affect the distribution of responsibilities and the creation of specialised functions and risk management. The quality of system design can be influenced by managerial and governance aspects, such as board control, leadership by senior management, risk culture, staff skills and the independence of risk management units. The capacity of banks to detect and mitigate new credit risks may be determined by technological measures including data quality, scoring methods, automated risk assessment, integration of information and the implementation of early-warning systems. The complexity and sophistication of credit risk management regimes can also be affected by factors such as regulatory requirements, capital adequacy considerations, competition and macroeconomic uncertainty. In addition, Bülbül et al. (2019) conclude that market competition and the characteristics of lending markets can also impact banks' credit risk management practices.

In the light of this background, the present study entitled “Determinants of Credit Risk Management System Design in Selected Private Sector Banks in India” aims at trying to understand the set of organizational, managerial, technological, financial, regulatory and environmental determinants that affect the design of credit risk management system. Instead of studying the results of risk management, this study details the determinants of organizational characteristics and credit risk management policies and procedures that underlie the way banks are managing their credit risk.

The study is of academic and managerial importance. Academically, it could help in building the body of knowledge in credit risk management by separating out the determinants of the design of credit risk management systems from separable determinants of the outcomes of the credit risk management. Managery, the findings could assist bank management recognise the factors that will facilitate smoother, more responsive and risk-sensitive credit management arrangements. The study may also give good ideas for the strengthening of credit appraisal, information quality, monitoring mechanism, and responsibility mapping with regard to the complexity of the lending operation. The research aims to study specific factors that affect the architecture and

implementation of credit risk management systems in private sector banks in India, specifically considering selected private sector banks in India.

2. Literature Review

2.1. Credit Risk Management Frameworks and System Design

Primary survey conducted by Bodla and Verma (2009) looked at the successful implementation of credit risk management framework in commercial banks in India. Their study focussed on two issues: firstly, the delegation of approval authority for credit and secondly, the organisational structure of credit decision making. Resultant finding revealed that decision making power for credit sanction lies with the board of directors of 94.4% public sector banks and 62.5 % private sector banks included in the study. The results show that organisational governance and decision-making power distribution are crucial aspects of the design of the credit risk management systems. The study is significant for the present research, as it offers the basis for the study of the factors which can be used as determinants to the system design, including credit approval hierarchy, delegation of authority and involvement of the board (Bodla & Verma, 2009).

Arora and Kumar (2014a) have created a Credit Risk Management Index to measure the credit risk management frameworks of Indian banks. The study investigated three key aspects of the credit risk management organisation, credit risk management policy and strategy, and credit risk management operations and systems. The researchers called for the improvement of various aspects, such as transaction-level credit risk monitoring and credit portfolio risk analysis. The results reveal that credit risk management is more effective if its organizational, policy and operational aspects are integrated instead of having a policy in place. The incorporation of these dimensions in the study becomes a valuable conceptual baseline for the present research as these can be used to analyse the nature and integration of credit risk management system in the credit risk management practices of selected private banks (Arora & Kumar, 2014a).

The evolution of capability and maturity of credit risk management by Indian banking sector have been investigated by Arora and Kumar 2014b. They argue that banks may be different in their degree of maturity of the development, integration and embedding of risk management within organisational processes, with a focus on the different ways that these capabilities might be managed. This is a key point since the presence of credit appraisal policies does not mean that a bank has an advanced risk management system. Standardised procedures, information sharing, analysis and systematic monitoring are also key to system maturity. In the context of the current research, this approach facilitates the study of the system integration, consistency of procedures used, and value of analytical sophistication in the design of the credit risk management system.

2.2. Organisational, Managerial, and Technological Determinants

The problem areas and constrain of credit risk management of Indian Public Sector Banks especially with respect to commercial lending were studied by Arora and Singh (2014). Operational difficulties with employee training, IT, data handling systems, system integration and credit rating were highlighted. These problems present a picture that the bank's resources and capabilities have a different impact than formal policy on the design of a credit risk management system. The analysis of this study is also relevant to this research; parameters common in the study that could be examined as factors shaping credit risk management arrangements include staff competence, data quality, technological infrastructure and the incorporation of risk assessment procedures. The findings of the study is based on the public sector banks, but the dimensions of their operations serve as references for possible investigations in the private sector as well (Arora & Singh, 2014).

Arora (2021) has studied the credit risk management practices in the process of credit lending in the Indian Public Sector Banks. The study discussed the issues of Credit Appraisal, Know your Customer procedure,

multilevel credit approval, risk based assessment and controls against wilful defaults. Its findings emphasise the need for proper and well-defined processes and cross edges on the implementation of controls related credit. The study also shows that the perceptions of managers may influence the risk management practices put into place. This is relevant to the proposed study as banks design and implement their credit risk management system that can be affected by various other factors: senior management commitment, employee competence, clarity of responsibility and consistency in the credit appraisal (Arora, 2021).

In this regard, Bülbül, et al. (2019) examined theoretically and empirically the factors that drive banks to select for their credit risk management practices. Their study revealed that competition and concentration are significant factors in the choice of risk management tools in the loan market. The results indicated that loan-market concentration affects the implementation of portfolio modelling and credit risk transfer mechanisms, while competitive pressure affects the implementation of risk management advanced practices. The study is of particular interest since it does not only relate to the results of credit risk but also delves into risk management practices of choice. In the context of Indian private banks, it implies that the competitive environment, bank structure, and portfolios could affect banks' choices of investing in a complex credit risk management system (Bülbül et al., 2019).

2.3. Bank-Specific Characteristics and Credit Risk

In the Indian banking sector, Gulati et al (2019) studied the factors driving credit risk among banks from the bank level data spanning from 1998-1999 to 2013-2014. To analyze the effects of bank-specific, macroeconomic, regulatory, and institutional factors on the two, the researchers used the method of moments (2-step generalised) approach. They derived that profitability, diversification, size of the bank, and lending concentration have positive relations with the default risk. They also discovered that the relative salience of these factors differed among the ownership groups. The study was not specifically designed with regard to any system's design, but did highlight key contextual elements which could affect the systems resources, complexity and analysis capacity for dealing with credit risk. The present study can broaden the vision by looking into the impact of bank size, profitability and concentration of lending on designing credit risk management system in selected private sector banks (Gulati et al., 2019).

This study by Sharifi et al. (2021) involved the relationship between the variables of the credit risk management, bank size, profitability and ownership of Indian banks. They took into account institutional characteristics to account for variations in banking risk management and financial performance. Based on the study some considerations can be made on the possible role of the bank size and the degree of financial capacity in the design of the system. Bigger banks may have more capacity to form specialized risk management teams and hire quantitative anayists, have internal rating models and invest in new software systems. Meanwhile, larger organizational designs may lead to more 'co-ordination and monitoring needs'. Andrews et al. (2021) identify bank size and financial resources as potential drivers of the sophistication and integration of credit risk management systems, thus facilitating their investigation in the present study.

Based on the sample of six public and six private sector commercial banks, Brahmaiah (2022) used different aspects of credit risk management practices in Indian commercial banks. The study included practices on risk identification, assessment, analysis, evaluation, monitoring and control. The results showed that credit risk management practices score were more satisfactory than the public sector banks, followed by asset quality and profitability among the private sector banks during the analysis period. This research has an immediate relevance as it takes into account the practices of credit risk management in Indian Banking System. But variations in practice and results do not point necessarily towards the why of the lack of system uptake. The present study can be extended to examine organisational, managerial, financial and technological determinants

on the organization of such systems in certain private banks, which was not discussed in Brahmaiah study (Brahmaiah, 2022).

2.4. Financial, Macroeconomic, and Contemporary Determinants

Antony and Gopal (2023) in their research article used industrial (bank level) and macroeconomic data to explore the causes of credit risk in commercial banks in India. The study took into account the influences of institutional financial attributes and the economic environment on the variation in credit risk. The study reinforces the notion that banks need to come up with a risk management system that can adapt to the July economic transformation and overcome the unfavorable factors. During recessions, high borrowing rates, and when borrowers' cash flow deteriorates, for instance, more frequent rotations in credit category, more robust monitoring, and reclassification of credit exposures may be necessary. The findings of the present study can be used to explore the effect of macroeconomic risk assessment, stress-testing capacities and early-warning procedures on the design of credit risk management systems of private sector banks (Antony & Gopal, 2023).

Gupta Bhatia (2024) have examined whether the financial performance of Indian commercial banks is linked to their risk characteristics or not. Using panel data analysis, they looked at four financial characteristics for their research: credit risk, liquidity risk, operational risk, and financial characteristics. The study emphasizes the significance of the importance of institutional risk exposures and financial conditions in elucidating the differences in banking performance. The results matter for system design as they suggest that both financial position and capital adequacy of a bank, as well as the nature of its exposure to risks, can impact on a bank's capacity to set up specialised risk management activities and to invest in analytical risk management capabilities. There is still a need, however, for separate and empirical investigation of these factors and how these might relate to actual design of credit risk management systems. Therefore the current research can be used to explore if the capital strength, financial capacity and wide credit exposures have any relationship in the design of credit risk management systems (Gupta & Bhatia, 2024).

Nayak and Nomani (2025) studied the credit risk management and non-performing assets of the commercial banks in India, their findings are based on primary information gathered from bank risk managers and secondary information of the non-performing loans. In their study, they used multiple linear regression techniques to examine the relationship between different credit risk management practices and credit risk outcomes. The results revealed that identification of the credit risk has significance in terms of the understanding of credit risk performance and differences between the private and public sector banks. The study is significant as good risk identification is an essential part of the credit risk management. However, assessing the performance of an existing practice is not equivalent to establishing what makes it adoptable and what its organisational set-up should look like. The current research can further contribute to this thread of research investigating the impact of management support, staff skills and experience, information quality, technology and regulatory needs on the design of a credit risk identification and monitoring system (Nayak & Nomani, 2025).

3. Research Gap

Previous studies show that credit risk management is shaped by the organisation, management practices, technological skills, characteristics of the banks, competition and the macroeconomic environment. Nevertheless, there are a few remaining questions that would be useful to address for the suggested research.

First, most of the literature analyzes the outcomes/damages of credit risk (such as non-performing assets, default probabilities, profitability and capital adequacy) and not the determinants of the credit risk management system design itself (Gulati et al., 2019; Brahmaiah, 2022). While these indicators include information on the risk exposure and performance, they are not representative of how banks design their risk management system, procedures or technologies.

Secondly, its impact of the role of organisation structure, governance, management commitment, employee competence and risk culture as a whole need to be explored. The following aspects can dictate the terms of credit allocation, the independent working of risk functions, and the uniformity of the implementation of credit policies (Bodla & Verma, 2009; Arora, 2021).

Third, technological infrastructure, the quality of information, deserve additional empirical analysis. Reliable borrower information, integrated databases, credit scoring models and credit portfolio analytics and early-warning systems could affect the credit risk management arrangement (Arora & Kumar, 2014a; Arora & Singh, 2014).

Fourth, the results of the mixed-bank samples and studies conducted on public sector institutions do not necessarily account for the influence on system design in private sector banks in the selected banks. There are factors which could impact competition, institutional resources, regulators and organisational complexity in varying ways between banks. Bülbül et al. (2019) show the relevance of the competition relationship to the choice of risk management practices, which is necessary to be examined in case of Indian private banking.

Hence the study under the present research aims and objectives to fill the gaps in existing literature and to study the organisational, managerial, technological, financial, regulatory and environmental determinants of designing credit risk management system for selected private sector banks in India. It is mainly about moving the focus of analysis from credit risks outcomes to credit risks shaping architecture, integration and implementation in credit risk management systems.

3.1 Objectives:

The study aims to examine the organisational, managerial, technological, financial, regulatory, and environmental determinants of credit risk management system design in selected private sector banks in India. It also seeks to assess their relative influence, evaluate existing credit risk management practices, and suggest measures to strengthen system effectiveness, integration, and risk control.

3.2 Methodology

The study will adopt a descriptive and analytical research design to examine the determinants of credit risk management system design in selected private sector banks in India. The study will be based on primary data collected through the questionnaire method, using a structured questionnaire administered to credit managers, risk management officers, branch managers, and other banking professionals involved in credit-related decisions. A sample size of 200 respondents will be considered for the study, subject to accessibility and respondent participation. Purposive sampling will be employed to select respondents with relevant knowledge and experience in credit risk management. Secondary data will be collected from bank annual reports, Reserve Bank of India publications, research articles, and other relevant documents.

4. Result and Analysis

4.1. Respondents' Profile

The respondents comprise Banking professionals involved in Credit Appraisal, Risk Management, Lending Decisions and Bank Administration. The direct experience and active role they play in operations are relevant to the understanding of determinants of a credit risk management system design.

Table 1: Distribution of Respondents by Professional Designation

Designation	Respondents	Percentage
Branch Managers	40	20.0%
Credit Managers/Officers	70	35.0%
Risk Management Officers	40	20.0%
Senior Banking Executives	30	15.0%
Other Banking Professionals	20	10.0%
Total	200	100.0%

The top group of respondents (35%) are credit managers/officers, while branch managers and risk management officers are equally large at 20%. This distribution features representation from practitioners working in credit assessment, loan transactions and risk monitoring. The involvement of senior executives also helps reflect management views on how the organisational and strategic structure impacts the design of the credit risk management system.

4.2. Perceived Importance of Determinants of Credit Risk Management System Design

Six potential determinants were asked of the respondents, each assessed on a 1-5 scale, ranging from Strongly Disagree to Strongly Agree. The percentage distribution and means are presented on the following table.

Table 2: Respondents' Perceptions of Determinants of Credit Risk Management System Design

Determinant	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean
Organisational structure	35%	40%	15%	7%	3%	3.97
Managerial commitment	42%	36%	12%	7%	3%	4.07
Technological infrastructure	45%	35%	10%	7%	3%	4.12
Financial resources	32%	38%	18%	8%	4%	3.86
Regulatory requirements	40%	37%	13%	7%	3%	4.04
External business environment	28%	37%	20%	10%	5%	3.73

The technological capability shows the highest mean score (4.12), and it is best to understand that the respondents believe that technological capability is an important determinant in the design of the credit risk management system. Managerial commitment comes in with a mean score of 4.07 while the regulatory requirements get 4.04. These findings indicate that when designing credit risk management arrangements, design considerations include the perception of importance of data systems, management support, and regulatory compliance. The external business environment score is the next lowest at 3.73 but is still above the scale midpoint. The findings in the illustrations show that the capacity of the internal organisations and external institutional pressures can both affect the design of the systems.

4.3. Percentage Analysis of Existing Credit Risk Management Practices

The following section looks at the level of reported implementation of selected credit risk management mechanisms within the financial institutions claimed by the respondents.

Table 3: Implementation of Credit Risk Management Practices

Credit Risk Management Practice	Implemented	Not Implemented	Total
Formal credit appraisal procedures	184 (92%)	16 (8%)	200
Credit scoring and risk rating	170 (85%)	30 (15%)	200
Periodic credit portfolio review	166 (83%)	34 (17%)	200
Early-warning systems	148 (74%)	52 (26%)	200
Stress testing and scenario analysis	132 (66%)	68 (34%)	200
Integrated credit risk information systems	144 (72%)	56 (28%)	200

The best reported uptake is for formal credit appraisal at 92%, followed by credit scoring and risk rating at 85%. 83% report that they have periodic reviews of their portfolio. Compared with this, stress testing and scenario analysis have recorded the lowest implementation rate at 66% while integrated credit risk information systems have been reported by 72%. Some of these results indicate that the traditional credit assessment procedures are more common than certain other sophisticated analytical and technology-based credit assessment procedures. It is a good time for banks to consider their stress-testing processes, early-warning systems and integration of credit data. Actual decisions shall be rendered on reliable data of the respondent(s).

4.4. Relative Ranking of Determinants

The criteria for determining the relative perceived importance of the six determinants prioritizes the determinants by their mean scores.

Table 4: Ranking of Determinants of Credit Risk Management System Design

Rank	Determinant	Mean Score
1	Technological infrastructure	4.12
2	Managerial commitment	4.07
3	Regulatory requirements	4.04
4	Organisational structure	3.97
5	Financial resources	3.86
6	External business environment	3.73

Installation of technological infrastructure is first, then managerial commitment, and next are the regulatory requirements. The results of this ranking show that respondents might give more significance to the availability of reliable information systems, management support and arrangements for compliance when assessing the design of their credit risk management system. Similarly, the degree of organisation and the availability of

financial resources score reasonably well. External business environment is sixth, but with a mean score of 3.73, there is still a sense that external conditions matter. The Ranking only shows the perceptions of the descriptive nature and does not provide any statistical significance of any influence of one determinant on the other.

4.5. Hypothesis Testing

The study is to examine the hypothesis that technological infrastructure is significant with credit risk management system design.

H_1: Technological infrastructure has a statistically significant positive relationship with the perceived effectiveness of credit risk management system design.

Table 5: Correlation Analysis

Variables	Correlation Coefficient (r)	p-value	Decision
Technological infrastructure and perceived system effectiveness	0.62	0.001	Reject H_0

A high positive correlation (r = 0.62), which means a moderately perfect positive correlation, exists between technological infrastructure and perceived credit risk management system effectiveness. The p-value of 0.001 is below the conventional 5% significance level. Thus, in this imaginary example we would reject the null hypothesis. This would suggest that as technological infrastructure increases, system effectiveness increases relative to the person's perception. A correlation does not imply causation, however, and the coefficient and p value reported should not be included as results of the actual research unless supported by an examination of the information on the collected questionnaires.

4.6. Multiple Regression Analysis

The relative association between the 6 determinants and a composite measure of credit risk management system design can be assessed using the multiple regression. System design or maturity should be represented by the dependent variable while the independent variables should be organisational structure, managerial commitment, technological infrastructure, financial resources, regulatory requirements or external environment of business.

The proposed regression model will be:

$$Y=\beta_0+\beta 1X1+\beta 2X2+\beta 3X3+ \beta 4X4+\beta 5X5+\beta 6X6+ \varepsilon$$

Where:

- Y = Credit risk management system design score
- X1 = Organisational structure
- X2 = Managerial commitment
- X3 = Technological infrastructure
- X4 = Financial resources
- X5 = Regulatory requirements
- X6 = External business environment

- β_0 = Constant
- β1 to β6 = Regression coefficients
- ε = Error term

Table 6: Multiple Regression Results

Independent Variable	Standardised Beta (β)	p-value	Interpretation
Organisational structure	0.18	0.012	Positive, statistically significant association
Managerial commitment	0.24	0.003	Positive, statistically significant association
Technological infrastructure	0.29	0.001	Positive, statistically significant association
Financial resources	0.13	0.048	Positive, statistically significant association
Regulatory requirements	0.21	0.006	Positive, statistically significant association
External business environment	0.08	0.184	Not statistically significant

Based on this hypothetical model, the standardised regression coefficient of the most dominant variable is technological measurement infrastructure (β = 0.29), then managerial commitment (β = 0.24) and the last is regulatory requirements (β = 0.21). The results indicate that the interaction effect between technological capabilities, management support and regulatory arrangements, have a positive association with the design of the credit risk management system if other variables are not included. Statistically significant positive associations at the 5% level are also found in organisational structure and financial resources. In this case, external business environment fails to capture statistical significance (p = 0.184).

4.7. Summary of Data Analysis

The findings suggest that the determinants of a private sector banks CRMS design in selected private sector banks of India could include technological infrastructure, managerial commitment, and regulatory requirements. The descriptive results also indicate that there is more awareness of the use of formal credit appraisal procedures and credit scoring than stress testing and credit risk information systems. The hypothetical correlation and regression analyses provide examples of what other design–system relations could be tested statistically with the proposed determinants.

These results, however, are indicative of the intended format, and not evidence of the actual state of Indian private sector banks. After the 200 questionnaires have been completed, frequency distributions, means, ranks, correlation and regression coefficients and significance levels should be determined using the actual data set. This will provide for the type of information which can be defended in the light of the evidence found in the research and conclusions drawn from such evidence.

Conclusion

It explores the factors which affect the design of the credit risk management system of the selected private sector banks in India, viz., organisational, managerial, technological, financial, regulatory and environmental. According to the analysis, the role of technological infrastructure, the commitment of managers and regulatory requirements could be important in the design of credit risk management systems. It also stresses the importance of early-warning and stress-testing, and of credit risk information systems. In designing systems, a set of

policies needs to be coordinated among them, they have to get some qualified personnel, they must have effective information, and they must have continuous monitoring of the credit exposures.

Recommendations

Private sector lenders need to invest in their technological capabilities to link credit information systems, credit scoring models, data analytics, and early warning systems to be able to detect any potential credit losses in time. Senior management should foster a good risk management culture and clearly define credit approval roles within the company and provide frequent employee training in credit appraisal and risk management analysis. Banks also need to enhance the quality of their stress testing, portfolio monitoring and regular review of lending policies to ensure that they can cope with developing risks. Appropriate funding for risk management activities, and including regulatory compliance in the process of routine credit decisions. Lastly, banks should keep a regular check on the design of their credit risk management system to ensure that it is adapted to the changing economic conditions, borrower characteristics and technological advances. These recommendations should be prioritised further based on the findings obtained from actual empirical data.

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