CREDIT RISK ASSESSMENT SYSTEM IN INDIAN BANKING INDUSTRY

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ABSTRACT:
The determinants of the credit risk assessment of banks in emerging economies have received limited attention in the literature. The major purpose of credit risk assessment is to identify risks in lending situations, draw conclusion regarding the likelihood of payment and make recommendations as to the proper type and structure of the loan in the light of the perceived financing needs and risks.

Credit risk assessment involves the examination of the link between management performance or capacity and the working relationship of a company's assets, liabilities and equity as shown on its balance sheet, the result of its operations as reflected in its income statement and cash flow. The objective of this paper is to understand the credit risk assessment process and its implications on quality of credit and risks associated so on.

Keywords: Credit, Collateral, Cash Flows, Loan Proposal, Credit Risk, Credit risk assessment, Lending.

INTRODUCTION

Credit is much older than writing. Hammurabi's code, which codified legal thinking around 4,000 years ago in Mesopotamia did not outline the basic rules of borrowing and did not address the concepts such as interest, collateral and default. These concepts appear to have been too well known to require explanation. However, the Code did emphasize that failure to pay a debt is a crime that should be treated identically to theft and fraud. From there arises the credit risk, thus loan providing officer is required to perform credit risk assessment to minimize the bank's risk in each transaction and obtain the maximum protection to the bank against any possible default.

Credit risk means the possibility of loss associated with diminution in the credit quality of borrowers. In a portfolio, losses stem from outright default due to inability or unwillingness of a customer or counter party to meet, commitments in relation to lending, trading, settlement and other financial transactions.

The past decade has seen dramatic losses in the banking industry. Companies that had been performing well suddenly announced large losses due to credit exposures that turned sour, interest rate positions taken, or derivative exposures that may or may not have been assumed to hedge balance sheet risk. In response to this, commercial banks have almost universally embarked upon an upgrading of their risk management and control systems.

Credit risk assessment is the quantitative and qualitative analysis of a company, which helps to determine the company's debt service capacity, or how capable it is to pay back its principal payments to the bank or other creditors. Credit risk assessment is concerned with identifying, evaluating and mitigating those risks, which may result in a company not being able to meet its creditors' claims.

Credit risk assessment is the method by which one calculates the creditworthiness of a business or organization. In other words, it is the evaluation of the ability of a company to honor its financial obligations. The audited financial statements of a large company might be analyzed when it issues or has issued bonds. Or, a bank may analyze the financial statements of a small business before making or renewing a commercial loan. The term refers to either case, whether the business is large or small.

The objective of the loan officer, while doing credit risk assessment is to look at both the borrower and the lending facility being proposed to assign a risk rating and provide the estimate about the amount of loss that the lender would suffer in the event of default. The risk rating is derived by estimating the probability of default by the borrower at a given confidence level over the life of the facility and by estimating the amount of loss that the lender would suffer in the event of default.

Credit risk assessment involves a wide variety of financial analysis techniques including ratio and trend analysis as well as the creation of projections and a detailed analysis of cash flows. Credit risk assessment also includes an examination of collateral and other sources of repayment as well as credit history and management ability. Analysts attempt to predict the probability that a borrower will default on its debts, and also the severity of

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losses in the event of default. Credit spreads—the difference in interest rates between theoretically "risk-free" investments such as U.S. treasuries or LIBOR and investments that carry some risk of default—reflect credit risk assessment by financial market participants.

Before approving a commercial loan, a bank will look at all of these factors with the primary emphasis being the cash flow of the borrower. A typical measurement of repayment ability is the debt service coverage ratio. A credit analyst at a bank will measure the cash generated by a business (before interest expense and excluding depreciation and any other non-cash or extraordinary expenses). The debt service coverage ratio divides this cash flow amount by the debt service (both principal and interest payments on all loans) that will be required to be met. Commercial bankers like to see debt service coverage of at least 120 percent. In other words, the debt service coverage ratio should be 1.2 or higher to show that an extra cushion exists and that the business can afford its debt requirements.

LITERATURE REVIEW

In recent years, with the trend of the economic globalization and volatility of financial market, credit risk management will be the focus in finance. The field of credit risk and corporate bankruptcy prediction gained considerable momentum (Bharath and Shumway, 2008; Davydenko, 2008; Korteweg and Polson, 2008) due to the increased competition in the field and the challenges of the present financial crisis. Credit risk is one of the main risks of commercial banks that will affect the banks' ability of sustainable operation.

Credit risk assessment is performed through the development of models usually based on a classification approach, in order to distinguish potential defaulters from non-defaulters. Generally, classification refers to the assignment of a finite set of objects into predefined classes according to Altman, Avery, Eisenbeis and Stinkey (1981) and Doumpos and Zopounidis (2002).

First, since credit risk or credit quality is highly correlated with information asymmetry or monitoring activities as documented by Blackwell and Kidwell (1988), Booth (1992) and Blackwell and Winters (1997), existing theoretical and empirical work developed by Buser, Chen and Kane (1981), Benston (1983), Goodman and Santomero(1986), Kane(1987), Merton (1977), Jensen (1986), Stultz (1990), Kahane (1977), Kim and Santomero (1988), Koehn and Santomero(1980), Saunders, Strock and Travlos (1990) and Galai and Masulis (1976).

If a bank is highly profitable, it can manage enough capital from retained earnings and from the market (See Garg (2019)). The government would not have to chip in. Every once in a while, economies suffer banking crisis and financial emergencies, and governments need to implant capital into privately owned banks. There have been nearly 100 episodes of banking crisis and financial emergencies in nearly the same number of economies in the world since 1971. Governments spent an expected 13 per cent of GDP on the average to clean up their monetary frameworks. In many economies, the cost has been upwards of 50 per cent of GDP.

To clarify how banks actually underwrite loans, Uchida (2011) employed unique data on small and medium-sized enterprises (SMEs) in Japan obtained from the Management Survey of Corporate Finance Issues in the Kansai Area in June 2005. In this survey, a responding firm (borrower) answers questions on the extent to which its main bank focuses on (or emphasizes) 22 firm characteristics when the bank underwrites its loans. This information enabled to measure the emphasis that banks place on their screening process. On balance, they find that the three most important factors when banks screen borrowers are their relationship with the borrower, the strength of the borrower's financial statements, and the collateral and/or guarantee pledged. It is interesting that these respectively correspond to soft information, hard information, and collateral/guarantees, all considered important factors when banks screen loans. They are also consistent with the classification of lending technologies in Berger and Udell (2002, 2006), i.e., relationship lending, financial statement lending, and fixed asset lending.

The credit creation process works smoothly when funds are transferred from ultimate savers to borrower (Bernanke, 1993). There are many potential sources of risk, including liquidity risk, credit risk, interest rate risk, market risk, foreign exchange risk and political risks (Campbell, 2007). However, credit risk is the biggest risk faced by banks and financial intermediaries (Gray, Cassidy, & RBA., 1997). The indicators of credit risk include the level of bad loans (Non-performing loans), problem loans or provision for loan losses (Jimenez & Saurina, 2006). Credit risk is the risk that a loan which has been granted by a bank, will not be either partially repaid on time or fully (Campbell, 2007), and where there is a risk of customer or counterparty default (Gray, et al., 1997).

Credit risk management processes enforce the banks to establish a clear process in for approving new credit as well as for the extension to existing credit. These processes also follow monitoring with particular care, and other appropriate steps are taken to control or mitigate the risk of connected lending (Basel, 1999).

Credit granting procedure and control

systems are necessary for the assessment of loan application, which then guarantees a bank's total loan portfolio as per the bank's overall integrity (Boyd, 1993). It is necessary to establish a proper credit risk environment, sound credit granting processes, appropriate credit administration, measurement, monitoring and control over credit risk, policy and strategies that clearly summarize the scope and allocation of bank credit facilities as well as the approach in which a credit portfolio is managed i.e. how loans are originated, appraised, supervised and collected, a basic element for effective credit risk management (Basel, 1999). Credit scoring procedures, assessment of negative events probabilities, and the consequent losses given these negative migrations or default events, are all important factors involved in credit risk management systems (Altman, Caouette, & Narayanan, 1998). Most studies have been inclined to focus on the problems of developing an effective method for the disposal of these bad debts, rather than for the provision of a regulatory and legal framework for their prevention and control (Campbell, 2007).

According to (Cuthberston & Nitzsche, 2003) risk management technology has been renovated over the last decade. The swiftness of information flow and the complexity of the international financial markets qualify banks to recognize, evaluate, manage and mitigate risk in a way that was just not possible ten years ago. The most current credit modelling software is in place with Basel II Accord. This accord has positively been a substance in leading the drive towards building applicable credit risk modelling and capital adequacy requirements. Banks will have to decide what their risk enthusiasm is, how to assign their resources optimally and how to compete in market. Generally in competitive market, a bank trade off the risk which allows much more competent risk transfer and portfolio optimization. However, for all these activities, banks must have a good knowledge about risk management, pricing of loan on competitive market, marginal risk adjusted contribution, monitoring of economic capital (Cuthberston & Nitzsche, 2003).

TYPES OF CREDIT RISK ASSESSMENT

1. Classic Credit Risk Assessment
2. Credit Scoring System

1. Classic Credit Risk Assessment

Traditionally most banks have relied on subjective judgment to assess the credit risk of a corporate borrower. Essentially, bankers used information on various borrower characteristics – such as character (reputation), capital (leverage), capacity (volatility of earnings), conditions (purpose of the loan), and collateral – in deciding whether or not to make a given loan. These characteristics are commonly referred to as the 5 Cs. Developing this type of expert system is time-consuming and expensive. That is why, from time to time, banks have tried to clone their decision-making process. Even so, in the granting of credit to corporate customers, many banks continue to rely primarily on their traditional expert system for evaluating potential borrowers.

The basic components of a Classic Credit Risk Assessment– the "five C's"

The "5 C's of Credit" are the 5 key elements a borrower should have to obtain a loan. Regardless of where you seek funding - from a bank, a local development corporation or a relative - a prospective lender will review your creditworthiness.

A complete and thoroughly documented loan request (including a business plan) will help the lender understand you and your business. The "Five C's" are the basic components of credit risk assessment. Each lender and each loan will have slightly different requirements, but the 5 C's are a good starting point.

1. Capacity
2. Capital
3. Collateral
4. Conditions
5. Character

1. Capacity to repay is the most critical of the five factors; it is the primary source of repayment – cash inflows that are generated by the company. What is your company's borrowing history and track record of repayment? How much debt can your company handle? Will you be able to honor the obligation and repay the debt? There are numerous financial benchmarks such as a debt service coverage ratio that a lender will use before advancing funds.

The prospective lender will want to know exactly how the borrower intends to repay the loan. The lender will consider the cash flow from the business, the timing of the repayment, and the probability of successful repayment of the loan. Payment history on existing credit relationships (personal or commercial), is considered an indicator of future payment performance. Potential lenders will also want to know about other possible sources of repayment. Briefly, capacity to repay from the cash flow of the business, the timing of the repayment to match cash flow, and the probability of successful repayment, payment history on existing credit relationships is an indicator of future performance, contingent sources of repayment.

2. Capital is the money borrower personally has invested in the business and is an indication of how much the borrower has at risk if the business fails. Interested lenders and investors will expect you to have contributed from your own assets and to have undertaken personal financial risk to establish the business before asking them to commit any funding. Capital injection by owner

is often 30%. So, for example, if project costs are Rs.10,00,000, then the owner must have Rs.3,00,000 to contribute in cash or equivalent contribution.

3. Collateral, or guarantees, is additional forms of security which can be provided to the lender. Giving a lender collateral means that the borrower pledges an asset he own, such as his home, commercial real estate or equipment to the lender with the agreement that it will be the repayment source in case he is unable to repay the loan. A guarantee, on the other hand, is just that - someone else signs a guarantee document promising to repay the loan if the borrower himself is unable to repay. Some lenders may require such a guarantee in addition to collateral as security for a loan.

4. Conditions describe the intended purpose of the loan, the local economic climate and the conditions within the industry that may affect the borrower. Will the money be used for working capital, additional equipment or inventory? The lender will also consider local economic conditions and the overall climate, both within the borrower's industry and in other industries that could affect borrower's business. If this business in question is sensitive to economic downturns, a lender wants to know that whether borrower is good at managing productivity and expenses. If borrower is out of work and on the verge of losing his home to foreclosure, then it is not the time to borrow more money.

5. Character speaks to integrity. It is the general or subjective impression the customer makes on the prospective lender. The lender will form an opinion as to whether or not you are sufficiently trustworthy to repay the loan or generate a return on funds invested in your company. Your educational background, credit history, work and industry experience will be considered. The quality of your references and the background and experience of your employees will also be reviewed. A FICO (Fair Isaac Corporation) score ("credit score") below 620 are most often deal killers.

2. Credit Scoring Systems

In recent decades, a number of objective, quantitative systems for scoring credits have been developed. In univariate (one variable) accounting-based credit-scoring systems, the credit analyst compares various key accounting ratios of potential borrowers with industry or group norms and trends in these variables.

Today, Standard & Poor's, Moody's, and Risk Management Association can all provide banks with industry ratios. The univariate approach enables an analyst starting an inquiry to determine whether a particular ratio for a potential borrower differs markedly from the norm for its industry. In reality, however, the unsatisfactory level of one ratio is frequently mitigated by the strength of some other measure. A firm, for example, may have a poor profitability ratio but an above-average liquidity ratio. One limitation of the univariate approach is the difficulty of making trade-offs between such weak and strong ratios. Of course, a good credit analyst can make these adjustments. However, some univariate measures – such as the specific industry group, public versus private company, and region – are categorical rather than ratio-level values. It is more difficult to make judgments about variables of this type.

Although univariate models are still in use today in many banks, most academics and an increasing number of practitioners seem to disapprove of ratio analysis as a means of assessing the performance of a business enterprise. Many respected theorists downgrade the arbitrary rules of thumb (such as company ratio comparisons) that are widely used by practitioners and favor instead the application of more rigorous statistical techniques.

The importance of risk analysis in credit assessment

Effectiveness of Credit Management in the bank is highlighted by the quality of its loan portfolio. Every Bank is striving hard to ensure that its credit portfolio is healthy and that Non Performing Assets are kept at lowest possible level, as both of these factors have direct impact on its profitability. In the present scenario efficient project appraisal has assumed a great importance as it can check and prevent induction of weak accounts to our loan portfolio. All possible steps need to be taken to strengthen pre sanction appraisal as always "Prevention is better than Cure".

The nature of business and the competitive environment in which the borrower's company operates determine to a large extent the asset investment, financial decisions and profit dynamics of the company. Risk analysis is performed to understand the company's new investment avenues, market and competitive position, its strategy, and its effect on financing needs. The bank expects from the borrower regular payment of the principal and the interest on the money provided. The risk that the bank takes is that the company will not be able to pay back whole or parts of the total sum thus all the credit applications should thoroughly analyzed.

The following steps should be taken in this respect:

- **Identify the risks**
  Define and document all the types of risks inherent in the company, management, product, industry and economy that could possibly affect the company's operations, and thus its ability to service its debt. This is done through information gathering -

the more relevant information, the better it is.

- Evaluate the risks
  It should be evaluated how and to what extent the risks identified above, might affect the operations of the business. Generally the business risk regards the quality and efficiency of the assets, performance risk is determined through income statement analysis and financial risk is determined by how liabilities are funded by the assets. Management risk is determined by how well management controls the above three major risks.

- Mitigate the risks
  After a thorough understanding of the risks has been made, it is in the bank's best interest that the risks are minimized or even fully mitigated. Once the interrelationship between all the risks has been defined, a balance must be found between the risks and return, which is done through the structure of the loan agreement, collateral, as well as appropriate covenants and a well-established pricing.

A complete analysis is the one that incorporates all available information regarding the company and industry in which it operates. It is extremely important to know your customer and a bank will enter a relationship with a customer only after it will obtain insight information about company's activity, financial position, plans for the future as well as details about experience of the management team.

The banks usually use the following sources of information:

- customer interview - it provides the most important information needed in credit investigation, including the type and the amount of loan required, sources and plans for repayment, business plans and feasibility studies, collateral, previous and current creditors and structure of existing credit facilities, customers and suppliers details, information about management, shareholders, strategy and also relevant information about market and market share.
- internal sources - credit files on any current or previous borrowings, checking account activity, other previous or current deposits, internal reports on market/ industry/ players on the market etc.
- external sources - other banks that the client has connections with, Credit Information Bureau Database, Payment Incident Bureau Database, governmental organization, industry association, press releases, the electronic archive for real movables guarantees, court files information etc.

BASIC ELEMENTS OF CREDIT RISK ASSESSMENT

Before looking at the types of loans available from commercial banks, it is important to understand the perspective of the typical commercial loan officer when he or she analyzes a loan proposal. There is often a lot of confusion and resentment about the relationship between bankers and entrepreneurs. The entrepreneur's believes the banker does not understand and appreciate his or her business requirements, while the loan officer may have had bad experiences with entrepreneurs and thus the loan officer has had to foreclose on a default which emphasis the lender to a more restrictive policy. Banks are in the business of selling money and capital is the principal product in their inventory. Bankers, however, are often personally risk averse and have internal controls and regulatory restrictions affecting their risk tolerance.

The bank's shareholders and board of directors expect loan officers to take all steps necessary to minimize the bank's risk in each transaction and obtain the maximum protection against defaults arising from this area. As a result, the types of loans available to growing companies, the terms and conditions, and the steps the bank takes to protect its interest all have a direct relationship to the proper assessment of risk in the credit to be given. The management team assigned to obtain debt financing from a commercial bank must embark on an immediate risk-mitigation and risk-management program to prepare for negotiating the loan documentation.

(I) Loan proposal characteristics

Although the exact elements of a loan package will vary depending on a company's size, industry, and stage of development, most lenders will want the following fundamental questions answered:

a) Who is the customer?
b) How much capital do they need and when?
c) How will the capital be allocated and for what specific purposes?
d) How will the borrower service the debt obligations (application and processing fees, interest, principal, or balloon payments)?
e) What protection (collateral) can the borrower provide the bank in the event that he is unable to meet the agreed obligations?
f) What are the key business matrices and how well are they measured, monitored and understood?

These questions are all designed to help the loan officer assess the risk factors in the proposed credit transaction. They are also designed to provide the loan officer with the information necessary to persuade the loan committee to approve the transaction. It must be understood that the loan officer (once convinced of the company's creditworthiness) will serve as an advocate on clients' behalf in presenting the proposal to the bank's loan committee and shepherding it through the bank's internal processing procedures. The loan documentation, terms, rates, and covenants that the loan committee will specify as conditions to making the loan will be directly related to how the company can demonstrate its ability to mitigate and manage risk as described in the business plan from borrower's end and formal loan proposal from the lender's point of view.

The loan proposal should include the following categories of information, many of which might be included under the business plan as well:

1. Summary of the credit request:- An overview of the history of the company, business background, the nature of your business or start-up, the amount of capital needed, the proposed repayment terms, the intended use of the capital, and the collateral available to secure the loan. Also the proposed pricing is included under this section.
2. Borrower's history:- A brief background of the borrower company; its capital structure; its founders; its stage of development and plans for growth; a list of customers, suppliers, and service providers; management structure and philosophy; main products and services; and an overview of any intellectual property owned developed; group structure and support offered by the parent are also to be considered.
3. Market data:- An overview of trends in the industry; the size of the market; the market share of the company; an assessment of the competition; the sustainable competitive advantages; marketing, public relations, and advertising strategies; market research studies; and relevant future trends in the industry as well as expectations for the future.
4. Financial information:- Multi-scenario financial statements (best case/ expected case/worst case), Sensitivity analysis, tax returns, company valuations or appraisals of key assets, current balance sheet, credit references, and the income statement. The role of the capital requested in the plans for growth, an allocation of the loan proceeds, and the ability to repay must be carefully explained. A projected cash-flow statement broken out in a monthly format for the whole lifetime of the loan must support a discussion over the ability to make the loan repayments on a timely basis. When presenting the collateral that might be available to support the loan request, it should not be assumed that the lender on a rupee-for-rupee basis would view the collateral.
5. Schedules and exhibits:- As part of the loan proposal, there should also be attached certain key documents, such as agreements with strategic vendors or customers, insurance policies, leases, and employment agreements. A picture of the products or site, and an organizational chart should also be appended as exhibits to the loan proposal.

(II) Structure of the credit risk assessment

Every bank has a specific format of the credit risk assessment, but they include most of the issues that will be further discussed. Generally, the assessment of the credit should include the following elements:

A. Description of the Loan (Purpose, Amount, Repayment Source, Terms, Security) - There are a number of types of loans available from a commercial bank, one or more of which could be tailored to meet specific requirements. Loans are usually categorized by the maturity of the loan, the expected use of proceeds, and the amount of money to be borrowed. The availability of various loans will depend on both the nature of the industry and the bank's assessment of company's creditworthiness.

B. Description of the Company -The description of the company including the name, industry, description of the activity, the legal form, ownership, holding or mother-company, group structure should be made. It should also be mentioned the market share of the company, the products or services it provides and the major suppliers, major clients and major competitors. The suppliers and clients are very important for the analysis because if the company is dependent on its suppliers or clients, they should be analyzed too, as the failure of one means the failure of the company.

C. Credit History -Any lender would want to know whether the client has paid past credit accounts on time. However, late payments are not an automatic reason for not granting the loan. At the same time, having no late payments in the credit report does not mean granting the loan.

D. Analysis of the Market/Industry -The Bank should identify and evaluate the vulnerability of the company to external factors and its ability to protect against them. As the market is concerned, it should be analyzed:

– Market structure (monopoly, oligopoly)

- Market size (number of participants, market share)
- The dimension of demand for the product (market assessment).

The most important issues related to the industry analysis are:

a. Rate of industry growth
b. Life cycle - it should be determined if it is a growth, mature or declining industry
c. Industry development (strong, weak, old or new)
d. Industry trends - it may be a seasonal or cyclical industry.

All the risks related to the industry should be identified. These risks may be: production risks, transportation risks, distribution risks.

E. Financial analysis of the borrower -A company's financial statements contain a series of relationships that are peculiar to a particular business, which can be described by analyzing individual components of each financial statement and by ratio analysis. They also reflect conditions in the industry and general economy and result from decisions taken by management in controlling the overall affairs of the company.

Financial analysis using business or financial ratios provides a mean of assessing a company's strengths and weaknesses. Using data from the balance sheet and income statement, various ratios can be computed which can then be compared directly to those of competing companies of varying sizes. Comparing the firm's operating results with those of specific competitors or the industry as a whole helps identifying the relative strengths and weaknesses. In addition, comparing changes in a firm's ratios over time can highlight improvements in performance or problem areas needing attention.

F. Cash flow and projected cash flow analysis -Loans must be paid back in cash, and the most direct way of evaluating a company's ability to generate sufficient cash to pay back the debts is Cash Flow and Projected Cash Flow. Cash Flow Statement is a very important tool for credit risk assessment. Cash Flow is essentially the movement of money into and out of the business; it's the cycle of cash inflows and cash outflows that determine the business' solvency.

G. Collateral Analysis-Collateral represents assets provided to secure an obligation. Traditionally, banks require corporate borrowers to commit company assets as security for loans. Under such arrangements, a party who owes an obligation to another party (borrower) posts collateral (to the bank) in order to secure the obligation. In the event that the party defaults on the obligation, the secured party seizes the collateral. Collateral is one of the main factors that influence the decision on crediting along with financial standing and effectiveness of the credit transaction and is the secondary source of loan reimbursement.

ANALYSIS OF CREDIT RISK MANAGEMENT PRACTICES

Overall CRM performance is at below the satisfactory level for both the public and private sector banks (See Arunkumar & Kotreshwar (2006)).

CRM Performance Index
Public and Private sector banks

Sl. No.	Performance Evaluation	Performance Index (%) Public Sector Banks	Performance Index (%) Private Sector Banks
1	Project appraisal procedures	58	49
2	Availability of comprehensive data	46	39
3	Risk based loan pricing	48	40
4	Deployment of information technology	46	57
5	Efficacy of Internal credit rating system	54	50
6	Sharing experience with other lenders over problem loans	40	36
7	Practice of fine-tuning loan policies	55	46
8	Internal audit of CRM procedures	42	49
9	Bank credit standards	51	48
10	Credit decision: merit v/s extraneous considerations	60	46
11	Frequency of credit portfolio reviews	61	58
12	Renewal of borrowers limits	34	42
13	Periodical review of customer credit ratings	33	57
	Total	632	617
	Performance Index	**49**	**47**

(1) More popular credit evaluation techniques like Altman' s Z score model, J.P. Morgan credit matrix, Zeta analysis do not find a place in the credit evaluation tool kit of the commercial banks in India. The Altman Z-score is based on five financial ratios that can be calculated from data found on a company's annual report. It uses profitability, leverage, liquidity, solvency and activity to predict whether a company has a high degree of probability of being insolvent.
CreditMetrics is the first readily available portfolio model for evaluating credit risk. The CreditMetrics approach enables a company to consolidate credit risk across its entire organization, and provides a statement of value-at-risk (VaR) due to credit caused by upgrades, downgrades, and defaults. Apart from above, there have been models that can help banks and financial institutions in predicting financial distress.

(2) Employees are not given enough training to enhance their conceptual understanding of credit risk and improving their skills in handling it.

(3) The leverage provided by information technology for efficient credit risk administration is not satisfactorily harnessed by commercial banks in India, particularly in public sector banks.

(4) The availability of comprehensive data for credit evaluation is far from satisfactory in commercial banks in India.

(5) Overall CRM performance of commercial banks in India as against the standard set out under New Basel Capital Accord is not satisfactory.

(6) With CRM performance Index of 49 percent in public sector banks and 47 percent in private sector banks respectively, the performance of public sector banks is at par with the performance of private sector banks

CONCLUSION

Credit risk assessment is the quantitative and qualitative analysis of a company which helps to determine the company's debt service capacity, or how capable it is to pay back its principal payments to the bank or other creditors. Credit risk assessment is concerned with identifying, evaluating and mitigating those risks which may result in a company not being able to meet its creditors' claims.

Credit risk assessment involves the examination of the link between management performance or capacity and the working relationship of a company's assets, liabilities and equity as shown on its balance sheet, the result of its operations as reflected in its income statement and cash flow. The evaluation of the company's financial statements and the ratios that indicate the efficiency of the company's performance will thus provide an indicator of the probability of success of the ability to service its debt in the future.

Taking losses isn't simple—you need to unload the guarantee, you need to seize resources and you need to see that loss decimate your capital. This is only good if banks really perceive misfortunes. In the event that they proceed to imagine and broaden, all that this will do is to cause extraordinary expansion (as bank books will be enlarged with capital, and insufficient losses will have been taken and the circumstance proceeds). The banks need to predict losses quick and forcefully take remedial measures; otherwise, the ethical risk will build NPAs (Garg, 2019).

Thus, the major purpose of credit risk assessment is to identify risks in lending situations, draw conclusion regarding the likelihood of payment and make recommendations as to the proper type and structure of the loan in the light of the perceived financing needs and risks.

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