Credit Management

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Abstract

One of the most important activities in your company is credit management or better known as credit control. Credit management is the process to ensure that customers will pay for the products delivered or the services rendered. Credit management is of vital importance to your cash flow: you can be profitable, but if you lack the cash to continue your business, you will either be bankrupt or taken-over by someone who knows how to deal with cash.

Keywords

Credit management, Bankrupt, Granting credit, Bank, Credit policy.

1. Introduction

A Credit management is the process of granting credit, setting the terms it's granted on, recovering this credit when it's due, and ensuring compliance with company credit policy, among other credit related functions. The goal within a bank or company in controlling credit is to improve revenues and profit by facilitating sales and reducing financial risks.

The role of credit manager is variable in its scope and Credit managers are responsible for:

1.Controlling bad debt exposure and expenses, through the direct management of credit terms on the company's ledgers.

2.Maintaining strong cash flows through efficient collections. The efficiency of cash flow is measured using various methods, most common of which is Days Sales Outstanding (DSO).

3.Ensuring an adequate Allowance for Doubtful Accounts is kept by the company.

4.Monitoring the Accounts Receivable portfolio for trends and warning signs.

5.Hiring and firing of credit analysts, accounts receivable and collections personnel.

6.Enforcing the "stop list" of supply of goods and services to customers.

7.Removing bad debts from the ledger (Bad Debt Write-Offs).

8.Setting credit limits.

9.Setting credit terms beyond those within credit analysts' authority.

10.Setting credit rating criteria.

11.Setting and ensuring compliance with a corporate credit policy.

12.Pursuing legal remedies for non-payers.

13.Obtaining security interests where necessary. Common examples of this could be PPSA's, letters of credit or personal guarantees.

14.Initiating legal or other recovery actions against customers who are delinquent.

Credit managers tend to fall into one of three groups due to the differing specialty legal and jurisdictional knowledge required:

2. Problem statement

The bank has a well-documented CRM policy that elaborates the products offered and all activities that have to be performed to manage the CR. It has also a credit manual that documents and elaborates

the strategies for managing CR and they are formulated in compliance with the bank credit policy. Strategies for granting credits focus on who, how and what should be done at the branch and corporate division levels while assessing borrowers. Also, who, how and what should be done at the head office while approving the credits. Various checklists are used in assessing borrowers and establishing their creditworthiness. Quantitative credit scoring models are not used at all. Personal judgment and intuition plays a big role in credit assessment. The focus is on borrower's capacity, character, condition, credit history and collateral (the five Cs).It was observed that poor recordkeeping and lack of effective database systems in various sectors within the country contributed significantly in not been able to.

Credit management is the process of monitoring and collecting payments from customers. A good credit management system minimizes the amount of capital tied up with debtors.

3. Research Objective

Customers that have not yet paid are called ACCOUNTS RECEIVABLES (AR). The problem with AR is that this is money owned by your company (AR is also called debtors) over which you do not have any control. There are two huge disadvantages with AR.

As long as your client has not settled his amount due, capital remains tied in AR and without an adequate terms and conditions does not even carry interest. Capital is cash, and you can use that cash for many other, far more useful and profitable purposes.

As long as an amount is outstanding, there is a risk that the customer will not be able to pay. The longer it takes the customer to pay, the higher the risk you face for non-payment. Non-payment or bad debt means a loss of 100%. EC Credit Control recommends lodging this with us within 90 days to dramatically increase your chances of a successful collection.

At first glance the solution is simple: do not extend credit to customers. If a customer wants to purchase something from your company, tell them they should either pay in advance or pay at delivery. In that way you will not have AR, meaning all your cash is ready available and you do not run the risk of bad debt however that isn't always possible when so many customers require 20th of the month accounts.

And in many cases where you decide not to extend credit, the customer will go to your opposition. This makes credit management an important process. In all your dealings with a customer you will have to weigh two risks:

1)the risk of late or non-payment, and

2)the risk of losing the sales.

Again this is easier said than done. Credit management is not only an important and interesting activity, but also an extremely difficult job so EC Credit Control works as an extension of your business to ensure good money is not thrown after bad.

4. Literature review

It is very important to have good credit management for efficient cash flow. There are instances when a plan seems to be profitable when assumed theoretically but practical execution is not possible due to insufficient funds. In order to avoid such situations, the best alternative is to limit the likelihood of bad debts. This can only be achieved through good credit management practices.

For running a profitable business in an enterprise the entrepreneur needs to prepare and design new policies and procedures for credit management. For example, the terms and conditions, invoicing promptly and the controlling debts.

Credit management plays a vital role in the banking sector. As we all know bank is one of the major source of lending capital. So, Banks follow the following principles for lending capital −

Liquidity: Liquidity plays a major role when a bank is into lending money. Usually, banks give money for short duration of time. This is because the money they lend is public money. This money

can be withdrawn by the depositor at any point of time. So, to avoid this chaos, banks lend loans after the loan seeker produces enough security of assets which can be easily marketable and transformable to cash in a short period of time. A bank is in possession to take over these produced assets if the borrower fails to repay the loan amount after some interval of time as decided

A bank has its own selection criteria for choosing security. Only those securities which acquires enough liquidity are added in the bank's investment portfolio. This is important as the bank requires funds to meet the urgent needs of its customers or depositors. The bank should be in a condition to sell some of the securities at a very short notice without creating an impact on their market rates much. There are particular securities such as the central, state and local government agreements which are easily saleable without having any impact on their market rates.

Shares and debentures of large industries are also addressed under this category. But the shares and debentures of ordinary industries are not easily marketable without having a fall in their market rates. Therefore, banks should always make investments in government securities and shares and debentures of reputed industrial houses.

Safety: The second most important function of lending is safety, safety of funds lent. Safety means that the borrower should be in a position to repay the loan and interest at regular durations of time without any fail. The repayment of the loan relies on the nature of security and the potential of the borrower to repay the loan.

Unlike all other investments, bank investments are risk-prone. The intensity of risk differs according to the type of security. Securities of the central government are safer when compared to the securities of the state governments and local bodies. Similarly, the securities of state government and local bodies are much safer when compared to the securities of industrial concerns.

This variation is due to the fact that the resources acquired by the central government are much higher as compared to resourced held by the state and local governments. It is also higher than the industrial concerns.

Also, the share and debentures of industrial concerns are bound to their earnings. Income varies according to the business activities held in a country. The bank should also consider the ability of the debtor to repay the debt of the governments while investing in their securities. The prerequisites for this are political stability and peace and security within the country.

Securities of a government acquiring large tax revenue and high borrowing capacity are considered as safe investments. The same goes with the securities of a rich municipality or local body and state government of a flourishing area. Thus, while making any sort of investments, banks should decide securities, shares and debentures of such governments, local bodies and industrial concerns which meets the principle of safety.

Therefore, from the bank's way of perceiving, the nature of security is very essential while lending a loan. Even after considering the securities, the bank needs to check the creditworthiness of the borrower which is monitored by his character, capacity to repay, and his financial standing. Above all, the safety of bank funds relies on the technical feasibility and economic viability of the project for which the loan is to be given.

Diversity: While selecting an investment portfolio, a commercial bank should abide by the principle of diversity. It should never invest its total funds in a specific type of securities, it should prefer investing in different types of securities.

It should select the shares and debentures of various industries located in different parts of the country. In case of state governments and local governing bodies, same principle should be abided to. Diversification basically targets at reducing risk of the investment portfolio of a bank.

The principle of diversity is applicable to the advancing of loans to different types of firms, industries, factories, businesses and markets. A bank should abide by the maxim that is "Do not keep all eggs in one basket." It should distribute its risks by lending loans to different trades and companies in different parts of the country.

Stability: Another essential principle of a bank's investment policy is stability. A bank should prefer investing in those stocks and securities which hold a high degree of stability in their costs. Any bank cannot incur any loss on the rate of its securities. So it should always invest funds in the shares of branded companies where the probability of decline in their rate is less.

Government contracts and debentures of industries carry fixed costs of interest. Their cost varies with variation in the market rate of interest. But the bank is bound to liquidate a part of them to satisfy its needs of cash whenever stuck by a financial crisis.

Else, they follow their full term of 10 years or more and variations in the market rate of interest do not disturb them. So, bank investments in debentures and contracts are more stable when compared to the shares of industries.

Profitability: This should be the chief principle of investment. A bank should only invest if it earns sufficient profits from it. Thus, it should, invest in securities that have a fair and stable return on the funds invested. The procuring capacity of securities and shares relies on the interest rate and the dividend rate and the tax benefits they hold.

Broadly, it is the securities of government branches like the government at the center, state and local bodies that hugely carry the exception of their interest from taxes. A bank should prefer investing in these type of securities instead of investing in the shares of new companies which also carry tax exception. This is due to the fact that shares of new companies are not considered as safe investments.

Now lending money to someone is accompanied by some risks mainly. As we know that bank lends the money of its depositors as loans. To put it simply the main job of a bank is to rent money from depositors and give money to the borrowers. As the primary source of funds for a bank is the money deposited by its customers which are repayable as and when required by the depositors, the bank needs to be very careful while lending money to customers.

Banks make money by lending money to borrowers and charging some interest rates. So, it is very essential from the bank's part to follow the cardinal principles of lending. When these principles are abided, they assure the safety of banks' funds and in response to that they assure its depositors and shareholders. In this whole process, banks earn good profits and grow as financial institutions. Sound lending principles by banks also help the economy of a nation to prosper and also advertise expansion of banks in rural areas.

5. Theoretical framework

Selection: A good credit risk management starts with a good selection of the counterparts and products. Good risk assessment models and qualified credit officers are key requirements for a good selection strategy. Important credit decisions are made at credit committees. For counterparts with a higher default risk, more collateral is asked for to reduce recovery risk.

Recovery risk is also reduced by requiring more stringent covenants, e.g., on asset sales. A good selection strategy also implies a good pricing of the products in line with the estimated risk.

Limitation: Limitation restricts the exposure of the bank to a given counterpart, it avoids the situation that one loss or a limited number of losses endanger the bank's solvency. The total amount of exposure to riskier counterparts is more restricted by a system of credit limits. The limit setting of the bank determines how much credit a counterpart with a given risk profile can take.

Diversification: The allocation process of banks will provide a good diversification of the risk across various borrowers of different types, industry sectors and geographies. Diversification strategies spread the credit risk in order to avoid a concentration on credit risk problems. Diversification is easier for large and international banks.

Credit enhancement: When a bank observes it is too exposed to a certain category of counterparts, it can buy credit protection in the form of guarantees from financial guarantors or via credit derivative products. By the protection, the credit quality of the guaranteed assets is enhanced. This is also known as credit risk mitigation.

6. Recommendation

The high amount of NPLs represents high credit risk in today bank system and this encounters banks with market risks and liquidity risk. Although banks are trying to control the risks within the organization, but high percentage of this risk and its consequences for the future could not be ignored. NPLs create due to weak criteria of credit assays, ineffective policies, risk acceptance without regard to limitation of bankroll and wrong functional indicators (Morton, 2003).Keeton and Morris (1987) present one of the earliest studies to examine or show the relationship between non-performing loans and credit risk management. The authors examined the losses by 2,470 insured commercial banks in the United States (US) over the 1979-85. Using NPLs net of charge-offs as the primary measure of loan losses. Keeton and Morris reported that commercial banks with greater risk appetite tend to record higher losses. Several studies which followed the publication of Keeton and Morris have since proposed similar and other explanations for losses/non-performing loans in banks. For instance a study by concluded that non-performing loans are increasing due to lack of risk management which threatens the profitability of banks.

Establishing an Appropriate Credit Risk Environment: In establishing a proper credit risk environment, the first principle is that the board of directors should have responsibility for approving and periodically (at least annually) reviewing the credit risk strategy and significant credit risk policies of the bank. The strategy should reflect the bank’s tolerance for risk and the level of profitability the bank expects to achieve for incurring various credit risks.

Operating under a Sound Credit Granting Process: To have a sound credit granting processes banks must operate within sound, well-defined credit-granting criteria. These criteria should include a clear indication of the bank’s target market and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment. Banks should establish overall credit limits at the level of individual borrowers and counterparties, and groups of connected counterparties that aggregate in a comparable and meaningful manner different types of exposures, both in the banking and trading book and on and off the balance sheet.

Maintaining an Appropriate Credit Administration, Measurement and Monitoring Process: To maintain an appropriate credit administration measurement, monitoring process, Basel (1999) sets out a number of principals. One is that Banks should have in place a system for the ongoing administration of their various credit risk-bearing portfolios. Banks must have in place a system for monitoring the condition of individual credits, including determining the adequacy of provisions and reserves; and third, they are encouraged to develop and utilize an internal risk rating system in managing credit risk. The rating system should be consistent with the nature, size and complexity of a bank’s activities.

7. Future Scope

Giving loans and issuing credit cards are two of the main concerns of banks in that they include the risks of non-payment. According to the Basel 2 guidelines, banks need to develop their own credit risk assessment systems. Some banks have such systems; nevertheless they have lost a large amount of money simply because the models they used failed to accurately predict customers’ defaults. Traditionally, banks have used static models with demographic or static factors to model credit risk patterns. However, economic factors are not independent of political fluctuations, and as the political environment changes, the economic environment evolves with it.

This has been especially evident in Iran after the 2008–2016 USA sanctions, as many previously reliable customers became unable to repay their debt (i.e., became bad customers). Nevertheless, a dynamic model that can accommodate fluctuating politico-economic factors has never been developed. In this paper, we propose a model that can accommodate factors associated with politico-economic crises. Human judgement is removed from the customer evaluation process. We used a fuzzy inference system to create a rule base using a set of uncertainty predictors. First, we train an adaptive network-based fuzzy inference system (ANFIS) using monthly data from a customer profile

dataset. Then, using the newly defined factors and their underlying rules, a second round of assessment begins in a fuzzy inference system.

Factors at a rural bank– Bank Perkreditan Rakyat– that are necessary for assessing credit applications. Additionally, a decision tree model was proposed on the basis of data mining methodology. Aiming to reduce the number of NPLs, current decision criteria for credit risk assessment are evaluated. The credit risk assessment model was applied to the bank PT BPR X in Bali, which contains 1082 lenders (11.99%) with NPLs identified as bad loan cases. This brought PT BPR X into the category of poorly performing banks. Data mining is used in developing a decision tree model for credit assessment as it can indicate whether the class of the request of lenders is of performing loan or NPL risk. Using C 5.0 methodology, a new decision tree model was generated. The model suggests new criteria for analyzing loan applications. The evaluation results show that, by applying this model, PT BPR X can reduce the amount of NPLs to less than 5% and the bank can be consequently classified as a well-performing bank. Considered the current credit-scoring approach, which is based on personal judgment. It is shown that, compared to the currently used judgment techniques, statistical scoring techniques provide more efficient classification results. Furthermore, neural net models provide better average correct classification rates, but the optimal choice of technique depends on the misclassification cost ratio. For a lower cost ratio, a probabilistic neural net is preferred while, for a higher ratio, multiple discriminant analysis (MDA) is the preferred choice. Thus, there is a role for MDA as well as for neural nets.

8. Conclusion

A hybrid data mining model of feature selection and ensemble learning classification algorithms was developed by based on three stages. The first stage concerns data gathering and pre-processing. In the second stage, four feature selection (FS) algorithms, including principal component analysis (PCA), genetic algorithms (GA), information gain ratio, and relief attribute evaluation functions are employed. Here, parameters of the FS methods are set from the classification accuracy of the SVM classification algorithm. After selecting the appropriate model for each selected feature, they are applied to the base and ensemble classification algorithms. Accordingly, the best FS algorithm (along with its parameters) is indicated for the modeling stage of the proposed model. In the third stage, classification algorithms are employed for the prepared dataset of each FS algorithm. The results of the second stage revealed that the PCA algorithm is the best FS algorithm. In the third stage, the classification results showed higher accuracy achieved by the ANN adaptive boosting metho.

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