CREDIT SCORING EVALUATION METHODS USED FOR CREDIT LOAN APPROVAL OF SELECT BANKS IN INDIA

Salla Vimal Kumar
Assistant Professor
Amity Global Business School, Hyderabad

E Saraswati Ramani
Assistant Professor
Amity Global Business School, Hyderabad

Abstract

As India is transiting towards digital and credit payments, many individuals are opting for credit loans. Credit loans play a prominent role in the banking industry as most of the revenue is generated from lending loans. Credit loans are issued based on an individual's credit score which is generated by credit rating agencies considering certain parameters for calculating the score. With this increasing trend, there is a need to understand the concept of credit score, credit score evaluation methods, and the parameters that are considered for credit loan approval.

Six banks were considered under this study for evaluating credit scoring methods and also to identify the parameters used while deciding on approving a loan to an individual. The primary evaluating methods in India are CIBIL and FICO. This study uses parameters like Payment history, credit length, credit utilization, credit mix, credit type, and debt level, and the weights considered for each parameter under different evaluation methods.

Keywords: Credit Score, CIBIL, FICO, Equifax, Credit Evaluation Methods, credit payment history

Introduction

As India is rapidly progressing towards digital and credit payments, many individuals are opting for credit loans. Credit loans play a prominent role in the banking industry as most of the revenue is generated from lending loans. Credit loans are issued based on an individual's credit score which is generated by credit rating agencies considering certain parameters for calculating the score. With this increasing trend, there is a need to understand the concept of credit score, credit score evaluation methods, and the parameters that are considered for credit loan approval.

Credit Score:

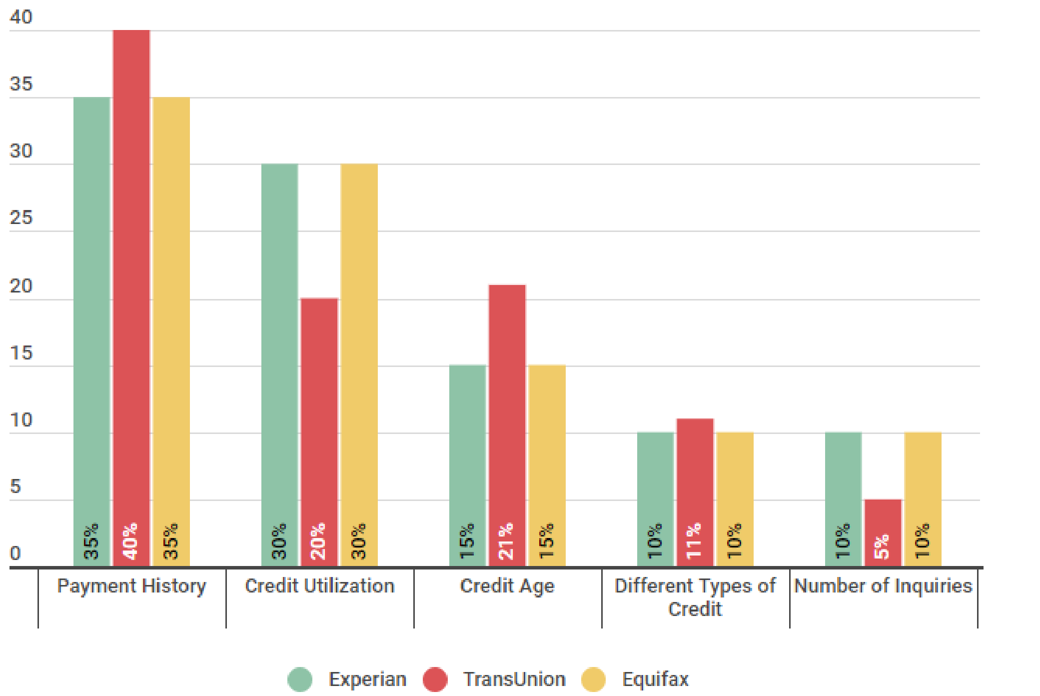
A credit scoring is one of the quantification methods to evaluate credit risk. Credit score gives the credit-worthiness of an individual which varies between 250 and 1000. A credit score is calculated based on credit related activity. Periodically banks and other financial institutions submit their customer's credit details like all the credit card payments, missed and late payments, credit limit, credit utilization, and credit account status of loans taken and loans settled or written-off. By using all this information, the credit score which is in three digits is generated. Customers are classified as defaulters or non-defaulters based on the credit score they maintain.

<u>Credit Score Ranges and meaning</u>

Status	CIBIL	FICO	Equifax	Experian	
Excellent	>900	800-900	800-1000	800-850	Loans with cheap interest rates. Negotiation power for rewards and benefits
Very Good	750-900	740-799	740-799	740-799	
Good	700-750	670-739	670-739	670-739	Gets approval for credit cards and loans. Cannot negotiate good deals
Fair	550-700	580-669	580-669	580-669	Take measures to improve the score
Poor	300-550	250-579	<579	300-579	Bad borrower and defaulted payments
Payment for Credit Report	Rs.550 for credit report and Rs 1200 per annum (4 reports)	Rs.1400 per credit report and Rs.2800 per annum	Rs.400 per credit report and Rs.1000 annual fee	Rs138 for each report	

Credit Evaluation Methods

There are many agencies that give credit scores and provide credit reports by using various credit evaluation methods to organizations and individuals. The major credit-rated agencies all over the world are CIBIL, FICO, Equifax, and Experian. CIBIL and FICO have primarily used credit evaluation methods in India. The influencing parameters in credit scoring used in India are payment history, age of credit payments, type of credit payments, credit utilization ratio, lenders enquiries count, credit defaults, default severity, overdue amounts, and credit mix.

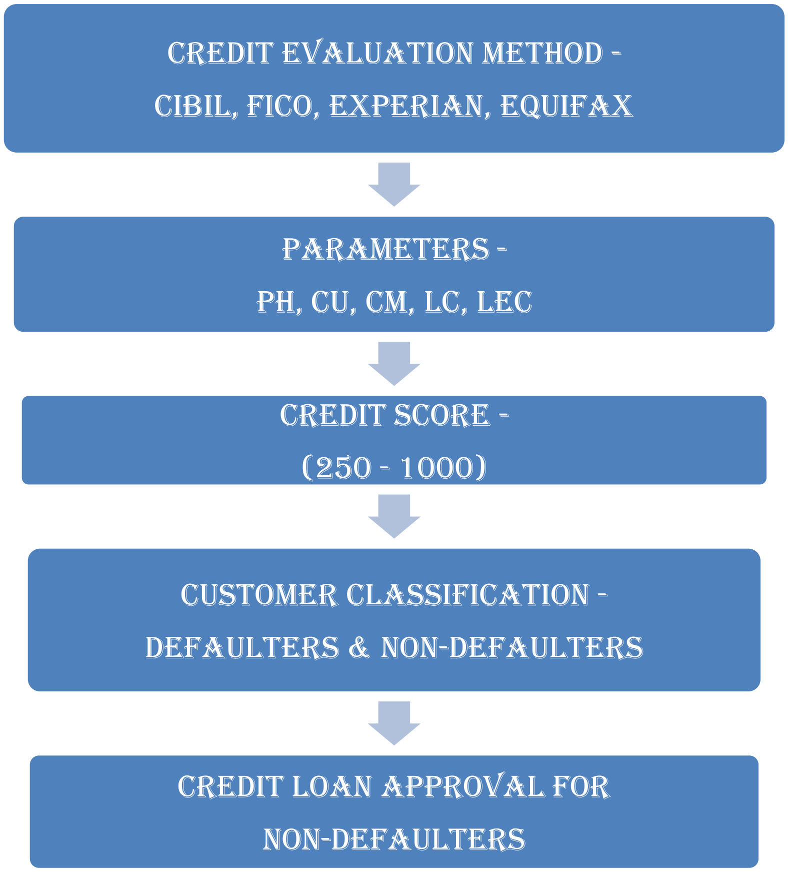


Source - https://money.howstuffworks.com/personal-finance/debt-management/credit-score1.htm

Terminology:

Credit Score	CS
Credit Loan Approval	CLA
Payment History	PH
Credit Utilisation	CU
Credit Mix (Types of Credit)	CM
Length of Credit (Credit Age)	LC
Lenders Enquiries Count (Number of Enquiries)	LEC

Credit Loan Approval Process



Objectives of the study:

1. To understand the concept of credit score.
2. To identify the credit scoring evaluation methods.
3. To identify the evaluation parameters for credit scoring.
4. To compare credit scoring methods of Indian banks with foreign banks.
5. To identify the customers challenges opting credit loan

The Need for the study: As India moves towards digital payments and online transactions, many people are deferring payments using the EMI method. Many financial institutions are offering better interest rates for credit lending, easy documentation and less demand for collateral securities making many individuals are moving towards utilizing the credit offers. In view of this major transition, there is a need to understand the concept of credit scoring, the credit evaluation methods, and the parameters considered for credit evaluation.

Scope of the Study: Six banks were considered out of which three are Indian banks namely, SBI, Axis, and HDFC, and three foreign banks Citibank, Standard Chartered, and HSBC for this study. This study evaluates credit scoring methods like FICO, CIBIL, and Equifax, and the parameters like credit history, credit length, debt level, credit utilization, credit mix required for evaluation.

Limitations of the study:

1. Only six banks were considered for this study.
2. Credit evaluation Parameters considered are the parameters that are used in India only.

S.No.	Parameters	SBI	Axis	HDFC	Citibank	Standard Chartered	HSBC
1	Credit Evaluation Method	CIBIL	CIBIL	CIBIL	FICO	CIBIL	CIBIL
Weights for Parameters							
2	PH	30%	30%	30%	35%	30%	30%
3	CU	25%	25%	25%	30%	25%	25%
4	CM	25%	25%	25%	10%	25%	25%
5	LC	-	-	-	15%	-	-
6	LEC	20%	20%	20%	10%	20%	20%

Statistical Techniques:

Many statistical techniques can be applied to credit scoring models. Some of these techniques are linear regression model, logistic regression, discriminant analysis, the weight of evidence measure, decision tree, and mathematical programming.

Logistic regression technique can also be applied for credit scoring where data can be classified into two groups and a dichotomous outcome is expected like credit defaulters and non-defaulters, risky and non-risky customers.

To discriminate between two groups, the discriminant analysis technique can be applied. The Weight of the evidence measures technique is used for investigating credit scoring models. Hand & Henley, 1997 stated, "one of the classification techniques decision trees is used for the development of credit scoring models".

Multiple linear regression analysis is another technique used when there is more than one independent variable.

Multiple Linear Regression Model

The Credit score is the dependent variable and PH, CU, CM, LC, LEC are the independent variables in the below model. Multiple linear regression is the best applied statistical technique for this model. A Chi-square test could be used to check the association between CS and Credit loan approval.

$$CS = \beta_0 + \beta_1 (PH) + \beta_2 (CU) + \beta_3 (CM) + \beta_4 (LC) + \beta_5 (LEC) + \varepsilon$$

Challenges faced by consumers opting for credit loan

1. There is no common range for credit scores among different credit rating agencies. Consumers get confused with different credit scores.
2. Consumers have to undergo a cumbersome and expensive process to rectify the wrong information.
3. Consumers need to pay a fee every time for generating credit score too few credit rating agencies. They pay a fee to get authentic credit scores.

Findings:

1. The majority of the banks operating in India use the CIBIL score as a credit evaluation method.
2. Out of the selected banks, only Citibank uses the FICO credit evaluation method for credit scoring.
3. Even though Standard Chartered and HSBC are from the foreign category, they use the CIBIL score as a credit evaluation method.
4. FICO gives 35% weight to payment history whereas CIBIL gives a weight of 30%.
5. Equifax, Experian, FICO, and CIBIL use different ranges of credit scores.
6. Higher credit scores entitle a consumer to preferential pricing and special discount rates on interest rates.

Conclusion:

Credit loans play a prominent role in the bank industry as revenue is generated through credit payments. A credit score is evaluated using various parameters. Good and excellent credit scores help an individual and entities to get a credit loan approval. Credit rating bureaus use different score ranges which creates confusion for customers. It is advisable to use the common credit score ranges for calculating credit score as Equifax (280-850), Experian (0-1000), FICO, and CIBIL (300-900) use different ranges of credit scores. Out of the six select banks, five banks are using CIBIL evaluation and one bank (Citibank) is using the FICO evaluation method. Higher credit scores entitle a consumer to preferential pricing and special discount rates on interest rates.

References:

1. https://www.experian.com/blogs/ask-experian/credit-education/score-basics/what-is-a-good-credit-score/
2. https://www.bankbazaar.com/credit-score.html
3. http://www.experian.in/understand-your-credit-information-report
4. https://www.creditsesame.com/blog/credit-score/credit-score-range-for-experian-transunion-equifax/
5. https://money.howstuffworks.com/personal-finance/debt-management/credit-score1.htm
6. https://www.transunion.com/credit-score
7. https://www.equifax.com/personal/education/credit/score/what-is-a-fico-score/