



# A Study Of Credit Risk Analysis At Hanumanthanagar Cooperative Bank LTD

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**Abstract:** Credit risk analysis is very important in every organization in order to manage the risk. Every organization should develop a proper credit analysis methodology to avoid future loss. The scope of the study limited to Hanumanthanagar co-operative bank and their customers.

The present study is about the Credit risk analysis of Hanumanthanagar co-operative banks. There is a need to understand the risk involved in lending the credit to the borrower by the bank to make sure that the loan lent will not be set as default. And to find out the necessary measures that how the bank can minimize the risk involved in its lending. The various aspects the bank needs to analyze while lending the loan in order to reduce its loan and maintain the profitability.

**Keywords:** Credit Risk, NPA, T test, exposure at default

## INTRODUCTION

Credit risk is defined as the risk of loss resulting from the failure by a borrower to repay the principal and interest owed to the lender. The lender uses the interest payments from the loan to compensate for the risk of potential losses. When the borrower defaults on his/her obligations, it causes an interruption in the cash flows of the lender.

Performing credit risk analysis helps the lender determine the borrower's ability to meet debt obligations in order to cushion itself from loss of cash flows and reduce the severity of losses. Borrowers who present a high level of credit risk are charged a high interest rate on the loan to compensate the lender for the high risk of default.

An effort to understand the Credit risk of Hanumanthanagar Cooperative Bank Ltd by analyzing the exposure at default. By categorizing each type of loan on the scale of Excellent to Poor, we have interpreted which type of loan is causing much default and loss to the Bank. Also, through finding out the Correlation and Hypothesis testing (t-test) we have found out that the bank has not been focusing much about the existing NPA's instead kept on issuing loans further on to the borrowers. We have also calculated certain ratios to find out the financial performance of the bank.

## LITERATURE REVIEW

**Danjuman, Ibrahim, Kola, Ibrahim Abdullateef, Magaji, Badiya Yusuf, Kumshe & Hauwamodu (2016)** explained the credit risk management and customer satisfaction. It shows the positive relationship between credit risk management and customer satisfaction and there is no need for banks management to pay attention to other factors that contribute towards the customer satisfaction other than granting of credits. Bank needs to focus on its credit policy in order to make more profits.

**Hameeda Abu, Hussain, Al Ajmi & Jasim (2012)** examined the administration of risk practices followed by the ordinary banks and found that the risk levels confronted by banks are higher in case of traditional banks. Hence, nationwide, residual and settlement, operational, risks are seen to be higher if there must be an event to occur in traditional banks.

**Abmed, Sufi Fizan, Malik & Qaisarali (2015)** assessed the credit risk administration and advance execution of micro scale banks. The consequences of the examination are demonstrating that there is a positive connection between the credit term and execution of advance. While, there is a positive connection between gathering approach and control of Credit risk however they are insignificantly affecting the advance.

**Parsley & Mark (1996)** found that credit and market risks alone cannot explain the earnings volatility they experience and against which they want to allocate capital. Measuring operational risk will provide banks a way to price a new and lucrative source of business. Hence bank needs to concentrate more on controlling its operational risk in order to increase its source of business.

**Meighs & Frank E (1995)** Analysed by utilizing conventional credit instruments with regards to interest rate swaps which offers the credit officers to sufficiently deal with another source of credit risk. End clients of financing interest rate swaps

can fundamentally decrease their credit chance by taking insurance. It acts as new instrument to deal with the risk required in loaning credit to the clients.

### OBJECTIVES OF THE STUDY:

- To study various types of loans and advances given by the Hanumanthanagar co-operative bank
- To Study the concept and significance of credit risk analysis of Hanumanthanagar Co-operative bank
- To study the company credit policies
- To categorize the loans type according to their risk level.

### METHODOLOGY

#### Type of research:

Secondary data sources have been used to gather information and work on this project. Secondary data sources have been referred in order to understand the key factors of the industry such as Growth, Size and innovations in the industry where as the again secondary data is used to understand the operational methods and the analysis of the financial information of the bank. Correlation and T test has been used to find out the relationship between the NPA and the Loans of the Bank. Reference period: The data is taken for a period of 60 months of last 5 year i.e., from 1st April 2016 to 31st March 2021

#### Tools used for analysis

1. Loans were categorized and presented based on the nature of loan, information of the loans issued and the loans pending are presented
2. A separate table for each type of loan is made and the non-performing assets of the each type of loan has been calculated
3. Lending to Collection Ratio of each loan is found out, Lending to Collection ratio = Loans issued/Loans collected \* 100
4. Based on the percentage the loan has been categorized under Excellent, Very good, Good, Fair and Poor
5. Correlation is used to find out the Strength of relationship between loans issued and NPA
6. T test has been used to find out the accuracy of the correlation between the variables
7. Growth rate of Investment has been calculated and also Investment to Deposit ratio
8. Return on Asset ratio of the bank has also been calculated to find out the profitability

### ANALYSIS AND INTERPRETATION

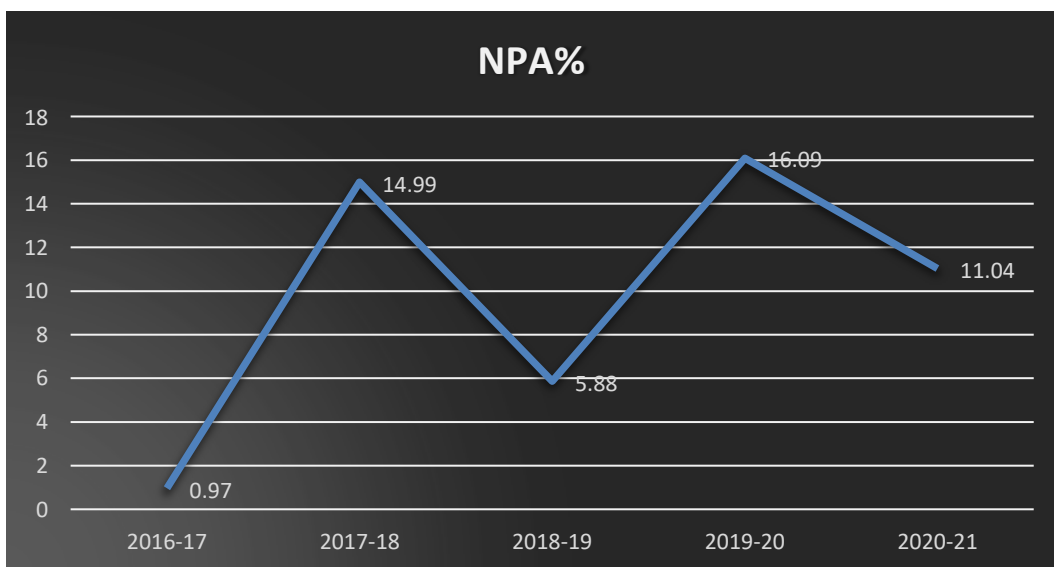
| Loan                              | lending to collection ratio | CATEGORY  |
|-----------------------------------|-----------------------------|-----------|
| Property loan                     | 151                         | EXCELLENT |
| Vehicle loan                      | 135                         | EXCELLENT |
| Jewellery loan                    | 103                         | VERY GOOD |
| Deposit loan                      | 96                          | GOOD      |
| Staff loan                        | 96                          | GOOD      |
| Small business loan               | 90                          | GOOD      |
| Mortgage loan                     | 89                          | FAIR      |
| overdraft loan                    | 88                          | FAIR      |
| Home loan                         | 79                          | POOR      |
| National savings certificate loan | 0                           | POOR      |

| Category  | Percentage    |
|-----------|---------------|
| Excellent | 110 and above |

|           |         |
|-----------|---------|
| very good | 100-110 |
| Good      | 90-100  |
| Fair      | 80-90   |
| Poor      | 0-80    |

We can see from the above tables that the Property loan and Vehicle loan falls in to the category of excellent, whereas Jewelry loan falls in to the Very good, Deposit loan, Staff loan and small business loans falls in to Good, Mortgage loan and Overdraft loan falls in to Fair and finally home loan falls in to category of Poor collection.

Graph showing the Percentage of NPA over the past 5 years;



From the above graph we can observe that the NPA of the Bank has been volatile and unstable. Similarly, the loans and advances of the Bank has also been following the same trend. Hence to find out the strength of the impact we have calculated correlation,

Coefficient of correlation =

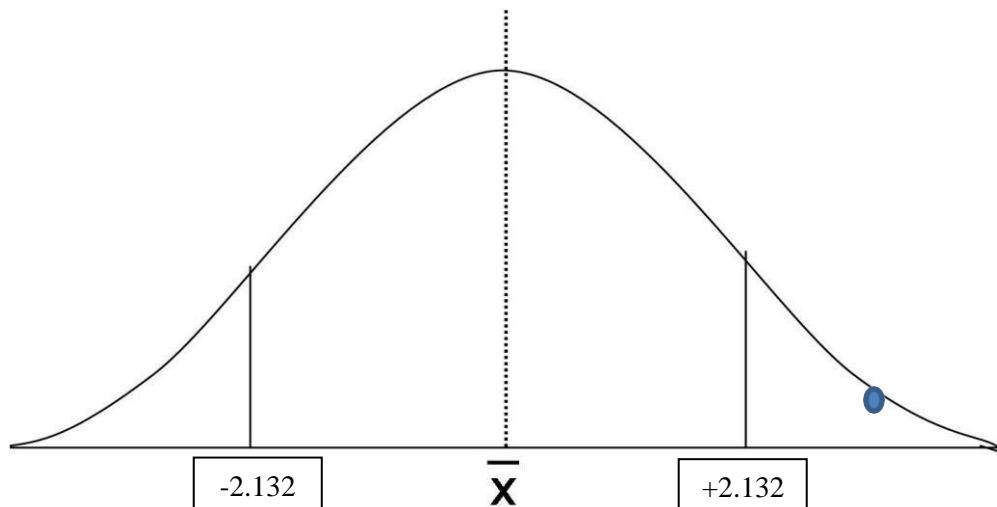
$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

The correlation between the Loans issued in HNRCB and the NPA of HNRCB Is 0.954159133 which is the Highly Positive. We have also conducted hypothesis testing for these in order to find out the accuracy of the Correlation value.

We have used T test since the Data of the observation is very less which is of 5 years, with 54 degrees of freedom and 5% level of significance

$$t = \frac{r_{xy}\sqrt{n-2}}{\sqrt{1-r_{xy}^2}}$$

the table value for a two-tailed test is, 2.132



From the above bell curve figure, the rejection area is below -2.132 and above 2.132, which means that if the t values fall in those regions we will reject null hypothesis. But, in our calculation the t value is 5.5217 falls in the rejection region

Hence, we reject null hypothesis

Therefore, we conclude that there is a significant relationship between Loans issued and the NPA of HNRCB

The deposits of Hanumanth Nagar co-operative Bank decreased significantly from 2016 to 2021. The deposits of the Hanumanthanagar co-operative Bank Ltd were Rs. 5100062714 which decreased to Rs 4247105828 from year 2016 to 2021.

The increase growth rate in advance is due to increase in lending rate which shows that the bank is having more proper application of funds in the form of advances which increases the profitability position of the bank.

The increased growth rate in investment shows that the bank is having proper portfolio of the funds collected and its investment in different fields.

Investment to deposit ratio was lower in the base year as compared to the rest of the year except in year 2017-18. From 2017-18 this ratio was higher and then it increased to 19.04 in 2019-20. it decreased to 17.55 in 2019-20, and further it increased in the year 2020-21. It concludes that investment to deposit ratio fluctuates from the year 2016-17 to 2020-21. Return on assets in the year 2016-17 is the highest compared to the rest. In the year 2017-18 return on asset was less i.e 0.23 compared to 2016-17 i.e 0.95. Increased in the year 2018-19 and again decreased in 2019-20. In year 2020-21 it increased by 0.37. It indicates that the company is not effectively using its assets to generate its earnings.

## CONCLUSION

Credit risk management begins with the lending of loans and ends with the repayment of the debt amount plus interest. Banks must focus on credit scoring and credit rating components to manage risk, which enhances the credit lending process and aids in determining the bank's creditworthiness. According to the findings of the survey, bank customers are happy and satisfied with the customer care offered by the bank.

The bank's growth and development are all demonstrating above-average growth rates, indicating the bank's financial health. The present organisation study was a fantastic learning experience; it increased my research abilities and helped me comprehend faster and more accurate methods of looking for information.

This research, from the beginning of the process to the finish of the report, provided me with a wealth of information about how banks operate and the numerous techniques they employ. It made me realize how significant my expertise working in a bank is.

This research provided me with an understanding of how cooperative banks operate and how they function as intermediaries between borrowers and lenders. It also taught me the value of excellent management in keeping the bank profitable.

The conclusion is based on the examination of primary and secondary data given by the bank, as well as conversations with the bank's concerned officers; nevertheless, due to a lack of time and a busy schedule of bank officials with year-end work, in-depth data gathering and analysis was not feasible.

Finally, I would like to express my heartfelt gratitude and appreciation to Hanumanthanagar co- operative bank for providing me with the chance to undertake research as part of my academic career.

**SUGGESTIONS**

- i. The bank should embrace current banking technologies to improve customer service and the bank's development.
- ii. The bank may get additional clients by advertising, preferably on social media.
- iii. For improved performance, the bank may implement a client grievance redressal and credit rating process.
- iv. The bank may open a bigger number of branches in Bangalore metropolitan city in order to cover the full BBMP operational region.
- v. The quality of the bank's manpower may be increased via training, for which the bank can implement an effective training strategy similar to that of the corporate sector.
- vi. In order to discover mistakes, performance and reports must be checked on a frequent basis.
- vii. The bank should have a procedure in place for taking corrective action when evaluating credit and managing credit difficulties.
- viii. The company's or customers' credit ratings must be updated on a regular basis.
- ix. In order to oversee and manage the borrower's credit risk, the bank should apply a credit rating model.
- x. They should raise knowledge about the numerous lending packages established by banks through advertising.

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