CREDIT RISK CASE STUDY – PROBLEM STATEMENT

Credit Risk:

Credit risk the default in payment of any loan by the borrower. In Banking sector this is an important factor to be considered before approving the loan of an applicant.

Impact of Credit Risk:

The bank’s revenue pattern depends on the saving account and loans they offer. Once an account holder puts money in their saving account, they get certain interest on their account balance. The bank keeps some part of these balances in reserve to make payments in case of withdrawals. The rest of the money is given as loans to borrowers. The interest put on loan is the revenue earned by the banks.

Therefore taking into consideration the factors that will decide whether a person will pay back the loan or not is crucial for banks. This is a common credit risk problem which is solved using analytics.

While receiving application of a borrower, the bank asks certain details about the applicant. The general factors that help predict loan default are income, occupation, age, loan amount etc of the applicant.

Problem Statement:

About Company:

Dream Housing Finance company deals in all home loans. They have presence across all urban, semi urban and rural areas. Customer first apply for home loan after that company validates the customer eligibility for loan.

Problem:

Company wants to automate the loan eligibility process (real time) based on customer detail provided while filling online application form. These details are Gender, Marital Status, Education, Number of Dependents, Income, Loan Amount, Credit History and others. To automate this process, they have given a problem to identify the customers segments, those are eligible for loan amount so that they can specifically target these customers. Here they have provided a partial data set.

Data:

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| **Variable** | **Description** |
| Loan\_ID | Unique Loan ID |
| Gender | Male/ Female |
| Married | Applicant married (Y/N) |
| Dependents | Number of dependents |
| Education | Applicant Education (Graduate/ Under Graduate) |
| Self\_Employed | Self employed (Y/N) |
| ApplicantIncome | Applicant income |
| CoapplicantIncome | Coapplicant income |
| LoanAmount | Loan amount in thousands |
| Loan\_Amount\_Term | Term of loan in months |
| Credit\_History | credit history meets guidelines |
| Property\_Area | Urban/ Semi Urban/ Rural |
| Loan\_Status | Loan approved (Y/N) |