

## **MILESTONE-1**

### **SUGGEST THE PROBABLE BUSINESS IMPACT OF EACH INDEPENDENT FEATURE ON THE TARGET**

- 1. Loan ID, Gender, Marital status, Number of dependents, Property area have low impact on Loan approval**

Reason: The loan repayment capability has no direct relation with Loan ID, Gender, marital status, number of dependents and the property area. The target feature of the data set, loan approval is directly dependent on applicant's loan repayment capability. Therefore, these independent features have low impact on the target.

- 2. Good Education has more chances of loan approval.**

Reason: A good education lays the foundation for a stable future which can increase the confidence of the lender while determining worthiness to avail a loan.

- 3. Self-employed should have lesser chances of loan approval.**

Reason: salaried people as more capable of loan repayment as they will have established a steady source of income. Self-employed people, on the other hand, need to prove their 'source of funds'.

- 4. Applicants with high incomes should have more chances of loan approval.**

Reason: Higher income indicates higher capacity to repay loan on time, which further implies lower risk for lenders.

- 5. Applicant with Co applicant should have more chances of loan approval.**

Reason: If co-applicant's income and credit score are high, then including them will up chance loan repayment capabilities.

- 6. If the loan amount is less, the chances of loan approval should be high.**

Reason: Generally, banks are willing to fund up to 80% of the cost of purpose of the loan. Based on the downpayment and loan repayment capability loan amount is sanctioned.

- 7. If the loan tenure is less, the chances of loan approval should be high.**

Reason: Shorter tenure of loan repayment means lesser risk for the bank. Several banks favour applications for a repayment period of up to five years.

- 8. Applicants who have repaid their previous debts (credit history) should have higher chances of loan approval.**

Reason: Credit history is report on repayment of debts and demonstrated responsibility in repaying them. Applicant with good scores are low risk borrowers.

### **SUGGEST WAYS IN WHICH THE ORGANISATION CAN BENEFIT AS A RESULT OF ANALYSING THE DATA**

1. The loan approval associated with high risk hence bank should evaluate application based on merits. Applicant details together with credit rating may serve as an instrument to find **credit worthiness** of the applicant.
2. The credit worthiness differs from individual to individual. The applicants with a high level of risk have higher probability of defaulting their loans.
3. The low-risk category applicants should get loan approval as the bank consider them creditworthy.
4. The mentioned hypotheses can be tested using bivariate analysis with respect to target variable.

### **SUGGEST MISSING FEATURES THAT CAN HELP WITH THE ANALYSIS BASED ON BUSINESS LOGIC**

1. Applicant's **work experience** may ensure reliable source of income and financial stability. A new column Work experience may serve the purpose.
2. Applicants' **employer type** may serve an instrument to ascertain job stability. Therefore Government & Top MNC jobs should be given preference over lesser known private and self-employed jobs
3. Applicant's **Age** also matters. Many of us start working at age 20s and stay active till 60s. One will have fewer earnings at early working stage and lesser income source at retirement years. Therefore, a loan application in early working stage and nearby retirement years should be rejected.
4. **Collateral or security** against the loan increases the chance of loan to be sanctioned. Applicants with lesser credit score should be asked collateral.

### **WHAT IS THE BEST WAY TO COLLECT DATA FOR THE SUGGESTED FEATURES**

The abovementioned data can be collected from the existing applicants via telephonic conversation/ Email exchange by the lender or authorized agencies and from new applicant while filling of loan application.

Submitted by

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