PROPOSED SOLUTIONS

SMART LENDER – APPLICANT CREDIBILITY PREDICTION FOR LOAN APPROVAL

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Novelty / Uniqueness:

The uniqueness of the current study is that the model eliminates the two most pressing problems in the banking industry, which are determining whether a borrower is unsafe and lending money to a borrower who isn't a risk. The client information submitted when filling out the online application form is used to automate the loan eligibility procedure. Gender, marital status, education, the number of dependents, income, loan size, credit history, and other information are included. Three key criteria—customer identification, credit underwriting, and fraud underwriting—are used to screen clients. For better filtering, we use the applicant's prior records, and we push clients toward low-interest loans based on their income.

Feasibility:

Before making a loan, the ideal candidate must be screened. It is impossible to manually select or anticipate the ideal applicant when there are several loan requests. Data mining techniques like logistic regression and random forest are employed for this selection. When used to predict a binary outcome based on a set of independent variables, logistic regression aids in classification. A supervised learning algorithm is random forest. An ensemble of decision trees, typically trained using the "bagging" approach, make up the "forest" that it constructs. The bagging method's general premise is that combining learning models improves the end outcome.

Social Impact / Customer Satisfaction:

Due to the fact that low interest loans are accepted for the applicants based on their income and there would be no societal consequences. It will be simple for the consumers to pay their interest, and no loan defaulters will be found. This model also contributes to the conclusion that a bank should not just target wealthy consumers for loan approval but should also consider other customer characteristics that are crucial in determining credit approval and identifying loan defaulters.

Scalability Of The Solution:

This model supports a huge data set and is subjected to numerous data mining techniques. Applicants who have high incomes and request smaller loan amounts are more likely to be authorised and to repay their debts. The corporation doesn't appear to take into account other factors like gender or marital status. But in this case, all factors are taken into account when issuing a loan, thus candidates with low incomes can also be granted a loan with favourable terms in addition to the wealthy. They are able to repay their obligation in full thanks to this.

Business Model (Revenue Model):

1. Appliacant Flow Handling:

2. Analyzing or preprocessing a dataset:

3. Model Result