**LITERATURE SURVEY**

**PROJECT NAME:** Smart lender- Applicant Credibility for loan approval

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| **DATE** | **19 SEP 2022** |
| **TEAM ID** | **PNT2022TMID49425** |
| **PROJECT NAME** | **SMART LENDER APPLICANT-CREDIABILITY FOR LOAN APPROVAL** |
| **MAXIMUM MARK** | **4MARKS** |
| **MEMBERS NAME** | **M.POOJA(TEAM LEADER)**  **G.MOHANAPRIYA**  **R.SIVASATHYA**  **M.YUVARANI** |

**TITLE 1:** Improving Information Quality in Loan Approval Processes for Fair Lending and Fair Pricing

**AUTHOR**: M. Cary Collins

**YEAR:** 2013

**DESCRIPTION:** Bank data management on loan approval processes has great room for improvements of information quality and data problems prevention especially with regards to fair lending and fair pricing practices. They first reviewed briefly typical data collection protocols deployed at many financial institutions for loan approval and loan pricing. Federal regulations mandate portions of these data protocols. While discussing the data capture and analysis for fair lending, they illustrated some initial key steps currently needed for improving information quality to all parties involved.

**TITLE 2:** Loan Credibility Prediction System Based on Decision Tree Algorithm

**AUTHOR:** Sivasree M S, Rekha Sunny T

YEAR: 2015

**DESCRIPTION:** Data mining techniques are becoming very popular nowadays because of the wide availability of huge quantity of data and the need for transforming such data into knowledge. Data mining techniques are implemented in various domains such as retail industry, biological data analysis, intrusion detection, telecommunication industry and other scientific applications. Techniques of data mining are also be used in the banking industry which help them compete in the market well equipped. In this paper, they introduced a prediction model for the bankers that will help them predict the credible customers who have applied for a loan. Decision Tree Algorithm is being applied to predict the attributes relevant for credibility. A prototype of the model has been described in this paper which can be used by the organizations for making the right decisions to approve or reject the loan request from the customers.

**TITLE 3:** Loan Approval Prediction based on Machine Learning Approach

**AUTHOR:** Kumar Arun , Garg Ishan considered are age,gender,salary details and several important parameters.

, Kaur Sanmeet

**YEAR:** 2016

**DESCRIPTION:** With the enhancement in the banking sector, lots of people apply for bank loans but the bank has its limited assets which it grants to only limited people , so finding out to whom the loan can be granted is a typical process for the banks. So, in this paper , they tried to reduce this risk by selecting the safe person so as to save lots of bank efforts and assets. It was done by mining the previous records of the people to whom the loan was granted before and on the basis of these records the machine was trained using the machine learning model which gave the most accurate result. The main goal of this paper is to predict if loan assignment to a specific person will be safe or not. This paper has into four sections

(i) Collection of data

(ii) Comparing the machine learning models on collected data

(iii) Training the collected data system

(iii) Testing the system.

**EXISTING SYSTEM**

Anomaly detection relies on individuals’ behaviour profiling and works by detecting any deviation from the norm. When it is used for online banking fraud detection, it suffers from three disadvantages. First, for an individual, the historical behaviour data are often too limited for profiling his/her behaviour pattern. Second, because of the heterogeneous nature of transaction data, there is no uniform treatment to various attribute values, which will become a potential barrier for development of the model and for further usage. Third, the transaction data are highly skewed, and it becomes a challenge for utilizing the label information effectively. Anomaly detection often suffers from poor generalization ability and a very high false alarm rate. We argue that individuals’ limited historical data for behaviour profiling and fraud data’s highly skewed nature could account for this defect. Since it is straightforward to use information from other similar individuals, similarity measurement itself becomes a great challenge due to heterogeneous nature of attribute values.

**PERSPECTIVE :**

**1.** According to the theory of Cary Collins, the concept of Fair lending and Fair pricing concept isgreat to predict the loan applicant details and t is possible to lend the right person in right time without any economic losses. This statement is true because of finding the right person who can pay the debts correctly is the first and foremost step to acheive the bank terms and conditions

**2.** According to the theory ofSivasree M S, Rekha Sunny T **;** the cocept of decision tree making make the linear algorithm and easier to predict the right person and this method is efficient compared to the Cary Collins fair pricing method**.** Since, this method says that Data mining techniques are implemented in various domains such as retail industry, biological data analysis, intrusion detection, telecommunication industry and other scientific applications.

Techniques of data mining are also be used in the banking industry which help them compete in the market well equipped. In this paper, they introduced a prediction model for the bankers that will help them predict the credible customers who have applied for a loan. Decision Tree Algorithm is being applied to predict the attributes relevant for credibility. A prototype of the model has been described in this paper which can be used by the organizations for making the right decisions to approve or reject the loan request from the customers. Data mining techniques are useful.

**3.** According to the theory of Kumar Arun, Garg Ishan, Kaur Sanmeet ,the Machine learning technique prediction the collection of data and comparing the machine learning models and then testing the model is easier to predict and proper distribution of the loans and this way is used by the banks today

**4.** In my perspective, the Smart lender can be intended properly by the fusion of data analytics and the Machine learning will be easier and efficient to acheive the project, the biolgical data collection and detection of the applicant information and industry or the business type and the ability of the person and the salary package and monetary expenses and the views of the economical point of view.

**CONCLUSION:**

This concept can be achieved by the Python and the Machine learning concept with the data analytics for the lending the loan and this can be processed with the information and should avoid the economical losses of the bank and it could be easier for the retrainment of the money.This is the easier technique to acheive the lending of bank and loan approval