

Credit EDA Assignment

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Problem Statement: Analyze the following datasets to form appropriate conclusions

The data given below contains the information about the loan application at the time of applying for the loan.

1. *'application_data.csv'* contains all the information of the client at the time of application.

The data is about whether a **client has payment difficulties**.

2. *'previous_application.csv'* contains information about the client's previous loan data. It contains the data on whether the previous application had been **Approved, Cancelled, Refused or Unused offer**.

3. *'columns_description.csv'* is data dictionary which describes the meaning of the variables.

AIM

This case study aims to

- identify patterns which indicate if a client has difficulty paying their instalments which may be used for taking actions such as denying the loan,
- reducing the amount of loan,
- lending (to risky applicants) at a higher interest rate, etc.

This will ensure that the consumers capable of repaying the loan are not rejected. Identification of such applicants using EDA is the aim of this case study.

RESULTS

Rejections

- Most rejection of loans came from purpose 'repairs'.
- For education purposes we have equal number of approves and rejection
- Paying other loans and buying a new car is having significant higher rejection than approves.

Difficulty paying

- Loan purposes with 'Repairs' are facing more difficulties in payment on time.
- There are few places where loan payment is significant higher than facing difficulties.
- They are 'Buying a garage', 'Business development', 'Buying land', 'Buying a new car' and 'Education' . Hence we can focus on these purposes for which the client is having for minimal payment difficulties.

RESULTS

Credits

- The credit amount of Loan purposes like 'Buying a home', 'Buying a land', 'Buying a new car' and 'Building a house' is higher.
- Income type of state servants have a significant amount of credit applied
- Money for third person or a Hobby is having less credits applied for.

Housing Type

- For Housing type, office apartment is having higher credit of target 0 and co-op apartment is having higher credit of target 1.
- So, we can conclude that bank should avoid giving loans to the housing type of co-op apartment as they are having difficulties in payment.
- Bank can focus mostly on housing type with parents or House\apartment or municipal apartment for successful payments.

CONCLUSION

1. Banks should focus more on contract type 'Student' ,pensioner'
2. Banks should focus less on income type 'Working' as they are having most number of unsuccessful payments.
3. Also with loan purpose 'Repair' is having higher number of unsuccessful payments on time and 'Businessman' with housing 'type other than 'Co-op apartment' for successful payments.
4. Get as much as clients from housing type 'With parents' as they are having least number of unsuccessful payments.

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