Lending Case Study

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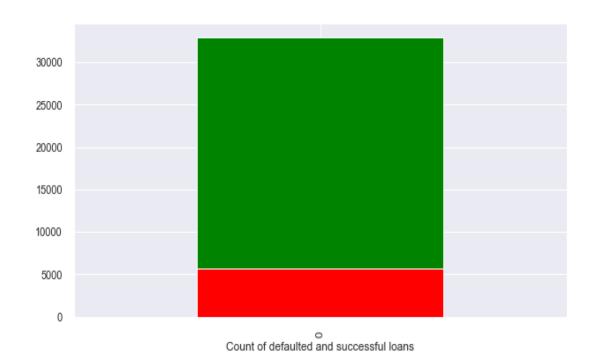
Purpose

In order to reduce the risk of bad loan for the micro finance company. Ask is to provide the factors that indicate the potential bad loans.

Bring out data driven insights to bring out key indicators for default happening in a loan.

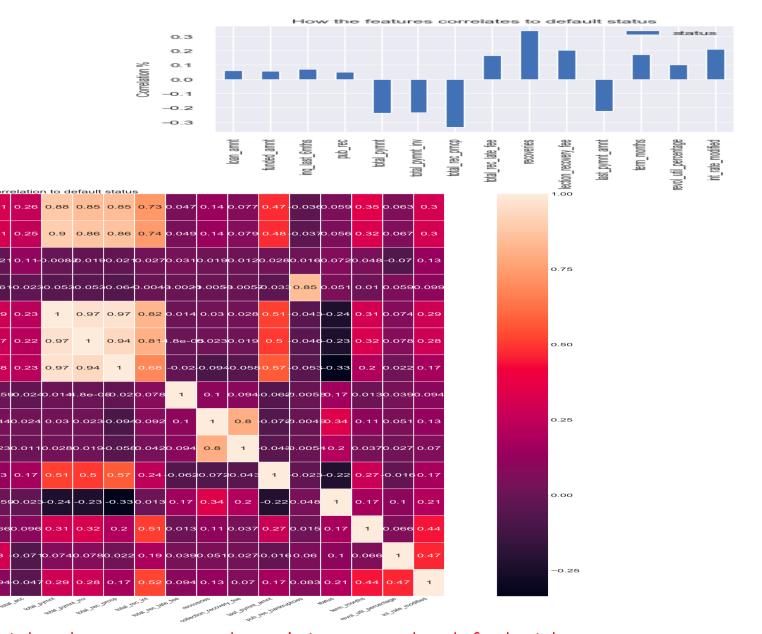
This will help the Loan Financing Organization to reduce the risk by taking corrective measure of adding extra rates/ fees or even rejecting a loan application

Look at loan charged off ratio



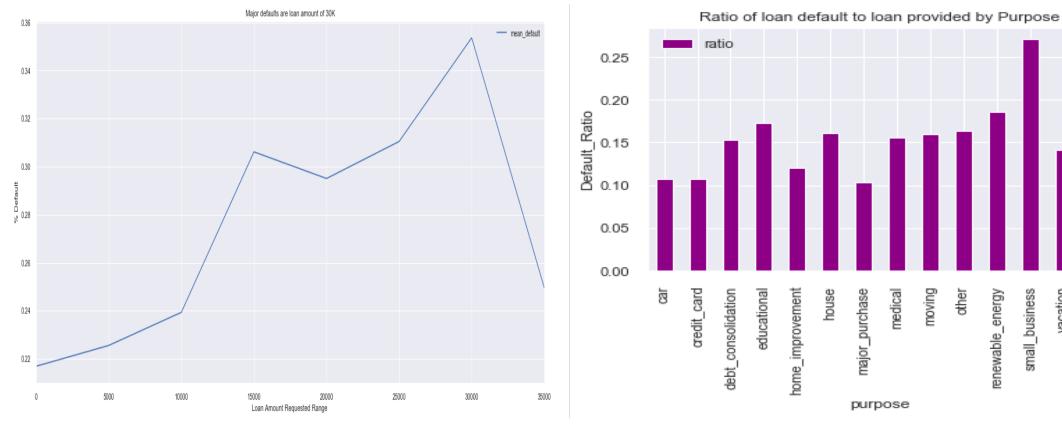
- Based on data provide around 5K out of 35K loans were bad loans and were charged-off
- Which constitutes to about 14% of loans getting charged-off.

How it all relates



No direct insights, however it states even higher loan amounts doesn't increase the default risk

Let's take a deep dive into some categories

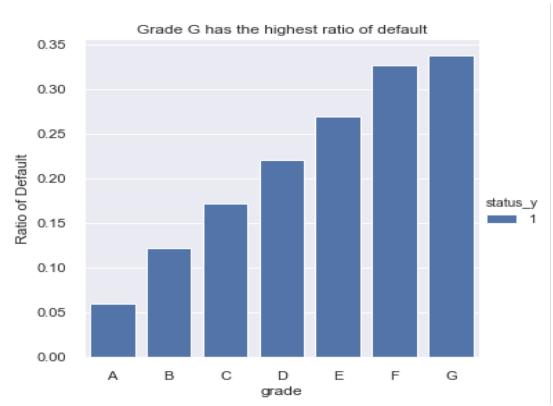


vacation medical moving other wedding major_purchase small_business enewable_energy purpose

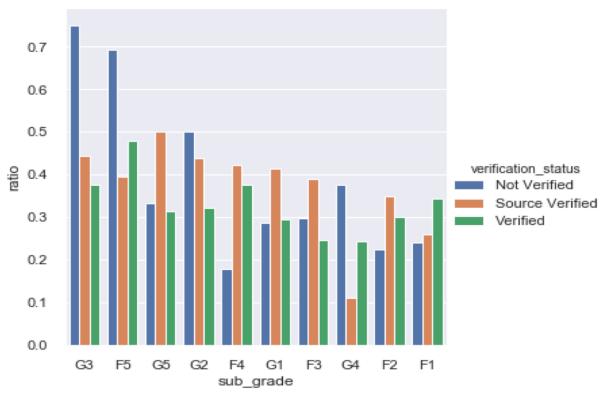
Default ratio is higher for loan amount between 30-35K

The ratio of default is higher in small business category

Impact of grade on Loans



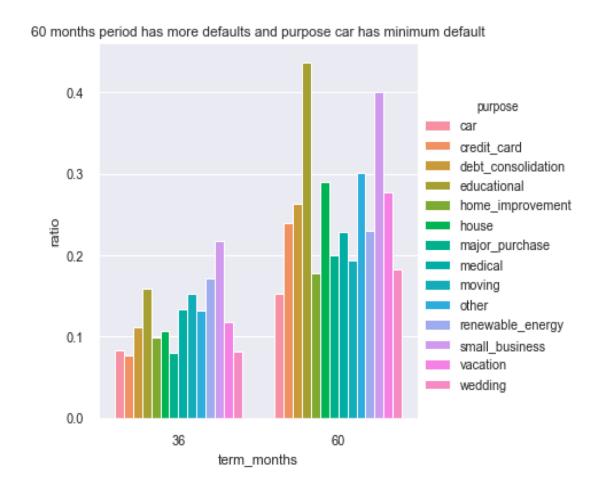
People in loan grade G & F are top 2 loan defaulters



Under G3 & F5 category the company must never give loans without verification.

Impact of term and purpose together on charge-off

- The loan with higher term has more tendency of loan getting charged-off
- Small business and debt consolidation loans have a default ratio of more than 40% for the term of 60 months.



Use of verification process on defaults

- The verification doesn't help in reduction of defaults
- In-fact verified people tend to default more
- Even home ownership doesn't impact much as people staying rented house defaults are marginally higher.
- So either verification process needs to be strict or can be removed completely to save processing cost.

