Lending Club Case Study

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A Bank is a place where they lend you an umbrella in a fair weather and ask for it back when it begins to rain.

- ROBERT FROST

What is LendingClub?

- Established in 2006, it was the first peer-to-peer lender to register its offerings as securities with the Securities and Exchange Commission (SEC), and to offer loan trading on a secondary market.
- Enabled borrowers to create unsecured personal loans between $1,000 and $40,000. The standard loan period was three years.
- Investors were able to search and browse the loan listings on LendingClub website and select loans that they wanted to invest in based on the information supplied about the borrower, amount of loan, loan grade, and loan purpose.
- Investors made money from the interest on these loans. LendingClub made money by charging borrowers an origination fee and investors a service fee.

Purpose of Case Study

- The Lending Club makes money from Interest Charges on the Loan. The loan requests go through scrutiny before approval. Lending money to the right customer makes a big difference. For any loan request there are two scenarios.

A. If the applicant is capable of repaying the loan, then not approving the loan results in a loss of business to the company

B. If the applicant is not likely to repay the loan (defaulter), then approving the loan would be a financial loss for the company.

- The purpose of the case study is to understand the financial, demographic and other details of all the loans and to figure out how it can navigate about above two scenarios to not undergo any financial loss.

Exploratory Data Analysis

- The Lending Club case study is an excellent use case for understanding the EDA. Below are the steps of EDA.

1. Data Sourcing – Usually data comes from Public or Private sources. It should be a trusted source.
2. Data Cleaning – The data needs rows/column fixing, removing empty and/or invalid rows, feature analysis and outlier treatments.
3. Univariate Analysis – It means analysing single variable at a time. We can also perform segmented univariate analysis.
4. Bivariate Analysis – It takes 2 features into account to identify their relationship. Correlation helps us understand dependency of the features.
5. Derived Metrics – These are the metrics which you derive from existing ones and gain additional information and insights of the data.

- Using all above EDA steps we perform the data analysis and draw the Business conclusions

Conclusions from Case Study

- Purpose - We see there are higher count of loans which are taken for debt_consolidation.
- Grade - The Grade and Subgrade represent risk factor thus we can say interest rate increases with the risk. The Grade A which is lowest risk also has lowest DTI ratio which we can say that higher grade has lower rate of default. Same goes for Subgrades as well.
- Public Recorded Bankruptcy - The borrowers are mostly having no record of Public Recorded Bankruptcy and are safe choice for loan issue.
- Term - The majority of loan has a term of 36 months compared to 60 months. The 60 month term has higher chance of defaulting than 36 month term whereas the 36 month term has higher chance of fully paid loan.
- Interest Rate - The default loan amount increases with interest rate
- Invested Amount - Mean value of funded amount invested is little higher for Charged Off loans.

THANK YOU