Bank Loan Data Analysis

Important Observations: -

- We can see there Is around 13.82% of bad loan issued. Which is considered very high and can lead to regulatory scrutiny.
- It is also been observed that more than 1000 loans are currently going on which till now is not considered loans as charged off. But from the above analysis we can predict around 130 loans have the potential to become a bad loan.
- Some observation also explained the higher DTI(debt to income ratio). While DTI and interest rates are not directly related but they both influence a lender's decision. If a borrower's DTI is lower than the interest rate, it indicates that they are not over-leveraged and can comfortably manage their existing debt obligations. This is generally a good sign from a financial health perspective.
- Grade represents a risk classification assigned to the loan based on creditworthiness. We can See Grade from C to G are most defaulters.
- Analysis shows that loans taken for Small Businesses and Renewable energy, most percentage of defaulters are coming from these areas.
- Loan application hike on holiday season near about to Christmas.
- California has the highest number of loans that is 6894 and North Dakota has 0 number of loans.
- Almost 80% of loan takers either leave in Rent houses or Mortgages.

Recommendations: -

1. Enhance the credit risk assessment process by incorporating additional data points (e.g., credit scores, employment history, debt-to-income ratio) to better predict loan defaults.
2. Segment borrowers based on risk profiles and tailor loan products, interest rates, and repayment terms accordingly. Customized loan offerings can improve customer satisfaction and reduce default rates by aligning loan terms with borrowers' financial situations.
3. Develop and implement robust monitoring systems that flag early signs of financial distress among borrowers. Early detection of potential defaults allows the bank to take corrective actions, such as renegotiating loan terms or providing financial counselling.
4. Streamline and strengthen recovery and collection processes to maximize the recovery of bad loans. Efficient recovery processes reduce the financial impact of NPAs and improve the bank’s cash flow.
5. Develop financial literacy programs for borrowers to help them understand loan terms, manage debt, and avoid defaults. Educated borrowers are more likely to make informed decisions, resulting in lower default rates and better long-term relationships with the bank.
6. Invest in data quality improvement initiatives to ensure that the data used for analysis is accurate, complete, and up-to-date. High-quality data is crucial for reliable analysis, which in turn supports better decision-making.