

Loan Default Risk Analysis Report

This report analyzes the default risk within our loan portfolio using advanced data visualization techniques across various metrics such as loan type, borrower income brackets, geographic distribution, and credit scores. The goal is to unearth patterns and insights that help refine our risk management strategies and enhance the stability and profitability of our loan offerings.

Analysis Overview

- **Default Rate:** At 47.98%, the default rate highlights significant credit risk within our portfolio, necessitating a strategic review and immediate action to mitigate losses.
- **Total Loans:** With 77,000 loans analyzed, the data provides a robust basis for identifying trends and implementing risk mitigation strategies.
- **Avg Loan Term of Defaulters:** The average loan term for defaulters is approximately 47.54 months, indicating a medium-term loan duration susceptibility.
- **Avg Interest Rate:** The notably high average interest rate of 40.3% could be contributing to the elevated default rates.
- **Total Outstanding Balance:** The substantial outstanding balance of \$84.46M from defaulted loans underscores the financial impact and the urgent need for effective risk management solutions.

Detailed Analysis

1. Default Rate by Loan Type

- **Insight:** Secured loans demonstrate a significantly lower default rate compared to unsecured and other types of loans, suggesting collateral as a mitigating factor for default risks.
- **Action:** Increase the proportion of secured loans in our portfolio and consider revising the terms for unsecured loans to include more stringent credit assessments.

2. Total Loans by Loan Type

- **Insight:** The dominance of unsecured loans correlates with the higher default rates, indicating a potential misalignment in risk pricing and loan type distribution.
- **Action:** Rebalance the loan portfolio to enhance the share of lower-risk, secured loans.

3. Default Rate and Number of Defaulted Loans by Income Bracket

- **Insight:** Lower income brackets exhibit higher default rates and numbers, pointing to economic strain as a significant factor in loan defaults.
- **Action:** Develop targeted financial products and advisory services for lower-income brackets to improve loan repayment rates.

4. Default Rate by County

- **Insight:** The geographic visualization of default rates across different European countries illustrates significant variations, with Estonia showing a relatively lower default rate of 39.93% compared to Slovakia's high 85.03%, Spain's 60.44%, and Finland's 58.80%. These variations suggest that local economic conditions, borrower behavior, and risk management practices significantly influence default rates.
- **Action:** Tailor regional lending strategies to reflect local economic conditions and borrower profiles.

5. Default Rate by Credit Score

- **Insight:** The pie chart illustrates the distribution of default rates by credit score categories. Higher default rates are notably prevalent in categories with known payment problems. The "unknown" category also shows a high default rate, suggesting that lack of credit information is a significant risk factor.
- **Action:** Discuss strategies for managing credit risk, such as adjusting interest rates, enhancing loan approval criteria, or increasing the proportion of secured loans and Improve credit scoring models and data collection processes to reduce the number of loans categorized as "Unknown."

Conclusion

The analysis reveals that while there are significant risks in the portfolio, there are clear opportunities to enhance risk management through targeted strategies. By adjusting loan offerings based on the type of loan, borrower income, and geographic insights, we can reduce default rates and improve the overall health of our loan portfolio.

Recommendations

- **Enhance Risk Assessment Tools:** Implement advanced analytics and machine learning to refine our credit scoring and risk assessment models.
- **Review and Adjust Pricing Models:** Align loan pricing with the associated risk levels, particularly for unsecured loans.
- **Strengthen Loan Recovery Processes:** Develop more effective loan recovery strategies, especially in regions and demographics with higher default rates.
- **Increase Financial Literacy Initiatives:** Offer financial education to borrowers in high-risk categories to help them manage their finances better.