Bank Personal Loan Modelling - Excel Analysis Report

Objective

To analyze customer data using Excel and pivot tables to identify patterns and trends that influence whether a customer accepts a personal loan offer.

Dataset Overview

- Age: Customer's age
- Experience: Years of work experience
- Income: Annual income
- Family: Family size
- CCAvg: Monthly credit card spending
- Education: Education level (1: Undergrad, 2: Graduate, 3: Advanced)
- Mortgage: Mortgage loan value
- Securities Account, CD Account, Online, CreditCard: Product usage flags
- Personal Loan: Target variable (1 = Accepted, 0 = Not Accepted)

Methodology

- Data cleaning and formatting in Excel
- Use of pivot tables to analyze trends and relationships
- Visualizations with Excel charts (bar, pie, column)
- Identification of key influencing factors based on summary statistics

Key Insights

- Higher income and credit card usage are associated with higher loan acceptance.
- Customers with higher education levels tend to accept loans more often.
- Ownership of CD accounts and use of online banking also show higher loan acceptance rates.

Conclusion

This project uses Excel to analyze personal loan data and extract business insights without any programming or machine learning. The pivot table summaries and visual charts help identify the key characteristics of customers who are more likely to accept loan offers, aiding in better

decision-making for marketing and targeting.

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