

Financial Banking Analysis

Dashboard Summary Report

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Subject: Customer and Banking Transaction Data Analysis using Power BI – Data Modeling – Data Cleaning – Dashboard Building

Page One: Overview

Findings:

- Total transactions are around 1 million, valued at 57 million.
- Highest spending was through Debit Cards (58%), followed by Credit Cards (39%).
- Dominant card brands are Visa (51%) and Mastercard (38%).
- The Food & Retail sector captured 15 million of total spending, followed by Fuel & Service Stations (6 million), then Financial Services (4.3 million).
- By location, Online Transactions reached around 7.3 million, followed by California (6.3 million) and Texas (4.3 million).
- General trend shows spending behavior concentrated in daily consumption sectors (retail, fuel) and in specific states or online.

Barriers / Issues:

- Noticeable decline in spending during the last month (down to 1.1 million).
- Spending concentrated in limited states such as California and New York.
- Heavy reliance on a single sector (Food & Retail).

Proposed Solutions:

- Implement marketing campaigns or promotional offers to boost spending at the end of periods.
 - Expand support in other states through targeted local programs.
 - Diversify marketing offers to include sectors such as healthcare and telecommunications to balance spending behavior.
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Page Two: Risk Assessment

Findings:

- Total error rate reached 1.57%, with a noticeable increase in November to 1.79%.
- Age group 45–54 recorded the highest number of errors (4.6k), followed by 65+ (3.9k).
- Mastercard recorded the highest number of failed transactions (4.6k).
- Error reasons distribution:
 - Insufficient balance (68%).
 - Wrong PIN entry (17%).
 - Technical/System glitches (14%).
- Geographic distribution shows most errors occurred in the U.S., with some in Europe and Australia.

Barriers / Issues:

- Increasing error rates recently.
- Older age groups more affected by errors.
- A large share of errors caused by insufficient balance.
- Weaker performance of Mastercard compared to other cards.

Proposed Solutions:

- Improve verification systems and update technical infrastructure to reduce glitches.
- Simplify payment steps and implement awareness programs for customers aged 45+.
- Activate early alert systems when balance is low before executing transactions.
- Coordinate with Mastercard provider to enhance verification systems and reduce errors.

Page Three: Customer Demographic Profile

Findings:

- Total customers: 2,000.
- Average annual income: 45.7k.
- Average Credit Score: 709, with most customers in Fair and Good categories.
- Age distribution shows largest group is 45–54 years old (385 customers).
- Gender distribution is nearly balanced (51% male, 49% female).
- Most customers have debt under 200k, with income centered around 100k or less.
- Retirement readiness:
 - 1,422 customers have more than 10 years until retirement.
 - 277 are currently retired.
 - Only 41 are very close to retirement (less than 1 year).

Barriers / Issues:

- No immediate severe problems, but most customers are concentrated in mid-age groups with average credit scores.

Proposed Solutions:

- Develop financial products tailored for the 45–54 age group (e.g., loans, retirement savings programs).
 - Enhance loyalty programs to ensure customer retention and stronger bank engagement.
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Conclusion

This report provides a comprehensive view of spending behavior, risks, and customer demographics.

The analysis highlights strengths in transaction volume and sector diversification but also points out challenges in risks (technical errors, insufficient balances) and spending distribution (concentration in certain sectors and regions).

Proposed solutions focus on improving technical systems, diversifying markets and sectors, and providing tailored financial products to strengthen loyalty and drive sustainable growth.