

CAPSTONE PROJECT

Domain: Banking (Financial Sector)

PROBLEM STATEMENT

The bank suspects it is facing challenges in customer engagement, transaction retention, and overall financial sustainability. To better understand these issues, the bank has provided transaction and customer data and has brought me on as a data analyst to uncover key insights. My role is to analyze customer behavior, transaction patterns, and financial trends to identify problem areas and recommend data-driven strategies to improve customer retention, optimize cash flow, and enhance overall banking performance.

EXECUTIVE SUMMARY

The bank is experiencing a concerning trend in customer engagement and financial flow. While the total active customer base stands at **12,434**, a significant **75% of customers fail to log in within 30 days**, putting them at risk of churning. Additionally, **2% of customers have not logged in after six months**, highlighting long-term disengagement. The customer tier distribution further reveals **that 64% of customers are in Tier 0**, suggesting most users have low-value accounts with minimal transactions.

From a financial perspective, the net cash flow is negative (~~₱~~92,941,031.45), indicating that outward transactions outweigh inward transactions. The percentage distribution of transaction types further supports this concern, with **40% of outward transactions classified as high level**, meaning large sums of money are leaving the bank. Meanwhile, internal transactions are overwhelmingly low-level (94%), suggesting customers are not retaining their funds within the institution. The transaction trend analysis shows a sharp peak in outward transactions over time, further emphasizing the liquidity challenge.

Customer demographics also play a role in these patterns. The age distribution of customers skews younger, with most clustered between 22-30 years old. However, customers who haven't logged in after six months are spread across a broader age range, including users in their 40s and 50s. This indicates potential gaps in customer retention efforts across different age groups.

RECOMMENDATIONS

1. Improve Customer Retention & Engagement:

- Implement targeted re-engagement campaigns for customers at risk of churn, especially those who have not logged in within 30 days.
- Introduce personalized financial products or incentives to encourage logins and transaction activity.

2. Address the Net Cash Flow Issue:

- Encourage customers to retain funds within the bank by offering interest rates on savings
- Reduce high outward transaction volumes by offering incentives for internal transfers and partnerships that encourage fund retention.

3. Segment Customers for Better Service Delivery:

- Develop tiered engagement strategies, as 64% of customers are in Tier 0, indicating a need for targeted financial products to help them move up the tiers.
- Provide premium services or exclusive benefits for Tier 1-3 customers to enhance loyalty.